# CITATION REPORT List of articles citing

Photoelectrocatalytic reduction of carbon dioxide in aqueous suspensions of semiconductor powders

DOI: 10.1038/277637a0 Nature, 1979, 277, 637-638.

Source: https://exaly.com/paper-pdf/14141456/citation-report.pdf

Version: 2024-04-09

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
2264	Control of Selectivity through a New Hydrogen-Transfer Mechanism in Photocatalytic Reduction Reactions: Electronically Relaxed Neutral H and the Role of ElectronPhonon Coupling.		
2263	PHOTOELECTROCHEMICAL HYDROGEN PRODUCTION. <b>1979</b> , 137-169		1
2262	Hydrogen evolution from water using solid carbon and light energy. <i>Nature</i> , <b>1979</b> , 282, 283-284	50.4	91
2261	Heterogeneous photocatalytic reduction of dichromate on n-type semiconductor catalysts. <i>Nature</i> , <b>1979</b> , 282, 817-818	50.4	136
2260	Reactions of water with carbon and ethylene over illuminated pt/tio2. <b>1980</b> , 70, 131-134		34
2259	Heterogeneous photocatalytic synthesis of ammonia from water and nitrogen. 1980, 74, 523-524		97
2258	Cyclische Wasserzersetzung durch sichtbares Licht: Drastische Erhflung der Ausbeute an H2 und O2 mit difunktionellen Redoxkatalysatoren. <b>1980</b> , 92, 663-664		16
2257	Photoreduction of carbon dioxide and water into formaldehyde and methanol on semiconductor materials. <b>1980</b> , 25, 165-170		163
2256	On the electrolytic reduction of carbon dioxide at TiO2 and TiO2-Ru Cathodes. <b>1980</b> , 112, 383-385		28
2255	Potential Methods and Perspectives of Solar Energy Conversion via Photocatalytic Processes. <b>1980</b> , 22, 261-324		72
2254	Photoreduction Processes on n-TiO2 Electrodes. <b>1980</b> , 84, 1040-1045		25
2253	A theoretical treatment of charge transfer via surface states at a semiconductor-electrolyte interface: Analysis of the water photoelectrolysis process. <b>1980</b> , 51, 1669-1675		16
2252	Photoelectrochemistry. <b>1980</b> , 207, 139-44		587
2251	Photocatalytic Decomposition of Water by Solar Energy-Hydrogen Evolution, CO2 Fixation on Powdered Semiconductors and Their Mechanisms with Pulsed Laser-Dynamic Mass Technique. <b>1981</b> , 1198-1209		
2250	Photoelectrochemical Devices for Solar Energy Conversion. <b>1981</b> , 263-312		8
2249	Heterogeneous Reactions of Nitrogen Monoxide on Titanium Dioxide Photocatalysts in Solutions. <b>1981</b> , 54, 1308-1313		14
2248	HETEROGENEOUS PHOTOCATALYTIC OXIDATION OF AROMATIC COMPOUNDS ON SEMICONDUCTOR MATERIALS: THE PHOTO-FENTON TYPE REACTION. <b>1981</b> , 10, 1053-1056		48

2247	Titanium. <b>1981</b> , 37, 9-39	9
2246	Carbon dioxide reduction and nitrogenase activity in organo-molybdenum microstructures. <b>1981</b> , 37, 357-9	7
2245	Heterogeneous photocatalytic oxidation of aromatic compounds on TiO2. <i>Nature</i> , <b>1981</b> , 293, 206-208 50.4	406
2244	Models for protocellular photophosphorylation. <b>1981</b> , 14, 3-14	11
2243	Prebiotic photosynthetic reactions. <b>1981</b> , 14, 15-32	29
2242	Photoassisted Carbon Dioxide Reduction to Organic Compounds Using Rare Earth Doped Barium Titanate and Lithium Niobate as Photoactive Agents. <b>1982</b> , 22, 177-179	25
2241	Photochemical generation of carbon monoxide and hydrogen by reduction of carbon dioxide and water under visible light irradiation. <b>1982</b> , 79, 701-4	288
2240	Recent and Anticipated Development of Industrial Organic Electrochemical Synthesis. 1982, 101-108	
2239	Photoreduction of Carbon Dioxide to Formic Acid, Formaldehyde, Methanol, Acetaldehyde and Ethanol Using Aqueous Suspensions of Strontium Titanate with Transition Metal Additives. <b>1982</b> , 1, 213-222	42
2238	Photoeffects on the potentials of thin metal films on a n-TiO2 crystal wafer. The mechanism of semiconductor photocatalysts. <b>1982</b> , 90, 453-456	55
2237	LIGHT-INDUCED ELECTRON TRANSPORT ACROSS SEMICONDUCTOR ELECTRODE/REACTION-CENTER FILM/ELECTROLYTE INTERFACES. <b>1982</b> , 35, 193-200	29
2236	Polycrystalline lanthanum rhodate and lutetium rhodate photoelectrodes for liquid junction solar cells. <b>1982</b> , 7, 171-181	6
2235	Core-level chemical shift effect for platinum supported on TiO2film electrode. <b>1982</b> , 140, 161-166	3
2234	Photo-assisted bromination of anisole with an n-TiO2 electrode in acetonitrile. <b>1982</b> , 134, 191-196	10
2233	On the electrolytic reduction of carbon dioxide at TiO2 and other titanates. <b>1983</b> , 145, 449-456	14
2232	Photoelectrochemical reactions of sodium propionate over polycrystaline ZnO. <b>1983</b> , 157, 381-385	
2231	Photochemical solar collector for the photoassisted reduction of aqueous carbon dioxide. <b>1983</b> , 31, 429-431	92
2230	An ESR study on the photoreactivity of tio2 pigments. <b>1983</b> , 18, 289-294	40

2229	Photo-aided reduction of carbon dioxide to carbon monoxide. <b>1983</b> , 157, 179-182		10
2228	Photoelectrochemical reduction of carbon dioxide to formic acid, formaldehyde and methanol on p-gallium arsenide in an aqueous V(II)-V(III) chloride redox system. <b>1983</b> , 159, 373-389		40
2227	Photochemical reduction of carbonate to formaldehyde on TiO2 powder. <b>1983</b> , 99, 7-10		41
2226	The photoactivity of porous Tio2 anodized at a high voltage. <b>1983</b> , 100, 236-240		6
2225	Electrochemical measurement on the photoelectrochemical reduction of aqueous carbon dioxide on p-Gallium phosphide and p-Gallium arsenide semiconductor electrodes. <b>1983</b> , 8, 425-440		88
2224	Microwave probing of electronic processes in small particle suspensions. <i>Nature</i> , <b>1984</b> , 310, 306-308 50	D-4	56
2223	Doping TiO2 for solar energy applications. <b>1984</b> , 22, 305-322		51
2222	Photoreduction of carbonic acid by mercury coated n-titanium dioxide. <b>1984</b> , 10, 235-238		20
2221	Photophysical properties of polyaromatic molecules adsorbed on TiO2 powder: the effect of coadsorbant. <b>1984</b> , 100, 116-120		10
2220	Photoelectrochemical pumping of enzymatic CO2 reduction. <i>Nature</i> , <b>1984</b> , 309, 148-149	D-4	215
2220	Photoelectrochemical pumping of enzymatic CO2 reduction. <i>Nature</i> , <b>1984</b> , 309, 148-149  The reduction of carbon dioxide at illuminated p-type semiconductor electrodes in nonaqueous media. <b>1984</b> , 29, 923-932	D.4	215
	The reduction of carbon dioxide at illuminated p-type semiconductor electrodes in nonaqueous	0.4	
2219	The reduction of carbon dioxide at illuminated p-type semiconductor electrodes in nonaqueous media. <b>1984</b> , 29, 923-932  Semiconductor-catalyzed photocycloreversion, valence isomerization and [1,3]-sigmatropic	0.4	63
2219	The reduction of carbon dioxide at illuminated p-type semiconductor electrodes in nonaqueous media. 1984, 29, 923-932  Semiconductor-catalyzed photocycloreversion, valence isomerization and [1,3]-sigmatropic rearrangement. 1984, 25, 5311-5314  Photoassisted carbon dioxide reduction on aqueous suspensions of titanium dioxide. 1984, 10, 85-91	5.4	63
2219 2218 2217	The reduction of carbon dioxide at illuminated p-type semiconductor electrodes in nonaqueous media. 1984, 29, 923-932  Semiconductor-catalyzed photocycloreversion, valence isomerization and [1,3]-sigmatropic rearrangement. 1984, 25, 5311-5314  Photoassisted carbon dioxide reduction on aqueous suspensions of titanium dioxide. 1984, 10, 85-91	0.4	63 17 59
2219 2218 2217 2216	The reduction of carbon dioxide at illuminated p-type semiconductor electrodes in nonaqueous media. 1984, 29, 923-932  Semiconductor-catalyzed photocycloreversion, valence isomerization and [1,3]-sigmatropic rearrangement. 1984, 25, 5311-5314  Photoassisted carbon dioxide reduction on aqueous suspensions of titanium dioxide. 1984, 10, 85-91  PHOTOELECTROCHEMICAL CELL USING SiC FOR WATER SPLITTING. 1985, 14, 869-872  Photoelectrochemistry in colloidal systems: Interfacial electron transfer between colloidal TiO2	0.4	63 17 59
2219 2218 2217 2216 2215	The reduction of carbon dioxide at illuminated p-type semiconductor electrodes in nonaqueous media. 1984, 29, 923-932  Semiconductor-catalyzed photocycloreversion, valence isomerization and [1,3]-sigmatropic rearrangement. 1984, 25, 5311-5314  Photoassisted carbon dioxide reduction on aqueous suspensions of titanium dioxide. 1984, 10, 85-91  PHOTOELECTROCHEMICAL CELL USING SiC FOR WATER SPLITTING. 1985, 14, 869-872  Photoelectrochemistry in colloidal systems: Interfacial electron transfer between colloidal TiO2 and thionine in acetonitrile. 1985, 28, 513-524  Photocatalysis of irradiated semiconductor surfaces: its application to water splitting and some	0.4	63 17 59 16 38

#### (1989-1986)

	Photochemical and Electrochemical Reduction of Carbon Dioxide to Carbon Monoxide Mediated by (2,2?-Bipyridine)tricarbonylchlororhenium(I) and Related Complexes as Homogeneous Catalysts.  1986, 69, 1990-2012	548
2210	Electrocatalytic reduction of carbon dioxide to methanol in the presence of 1,2-dihydroxybenzene-3,5-disulphonatoferrate(III) and ethanol. <b>1986</b> , 34, 67-72	21
2209	Electrocatalytic reduction of carbon dioxide to methanol Part III. Use of an electrochemical photocell. <b>1986</b> , 201, 359-365	13
2208	The electrochemical reduction of aqueous carbon dioxide to methanol at molybdenum electrodes with low overpotentials. <b>1986</b> , 205, 219-232	107
2207	Doped TiO2 for solar energy applications. <b>1986</b> , 36, 163-168	50
2206	Photoassisted Reduction of Carbon and Nitrogen Compounds with Semiconductors. <b>1986</b> , 521-532	1
2205	Photoelectro-chemical methods for the utilization of solar energy. <b>1986</b> , 7, 3-30	15
2204	Formation of ethyl alcohol in the photocatalytic reduction of carbon dioxide by SiC and ZnSe/metal powders. <b>1987</b> , 225, 287-290	24
2203	Photocatalytic reduction of carbon dioxide with metal-loaded SiC powders. <b>1988</b> , 247, 333-337	17
2202	Electrocatalytic Carbon Dioxide Reduction. <b>1988</b> , 52-90	17
		-/
2201		1
2201		
	Carbon Dioxide Equilibria. <b>1988</b> , 8-15  Photocatalytic degradation of DDT mediated in aqueous semiconductor slurries by simulated	1
<b>22</b> 00	Carbon Dioxide Equilibria. 1988, 8-15  Photocatalytic degradation of DDT mediated in aqueous semiconductor slurries by simulated sunlight. 1989, 8, 997-1002	1 50
2200	Carbon Dioxide Equilibria. 1988, 8-15  Photocatalytic degradation of DDT mediated in aqueous semiconductor slurries by simulated sunlight. 1989, 8, 997-1002  Electrochemical reduction of carbon dioxide mediated by molecular catalysts. 1989, 93, 245-268  Photocatalysis on small particle TiO2 catalysts. reaction intermediates and reaction mechanisms.	1 50 234
2200 2199 2198 2197	Carbon Dioxide Equilibria. 1988, 8-15  Photocatalytic degradation of DDT mediated in aqueous semiconductor slurries by simulated sunlight. 1989, 8, 997-1002  Electrochemical reduction of carbon dioxide mediated by molecular catalysts. 1989, 93, 245-268  Photocatalysis on small particle TiO2 catalysts. reaction intermediates and reaction mechanisms. 1989, 11, 67-106	1 50 234 115
2200 2199 2198 2197	Carbon Dioxide Equilibria. 1988, 8-15  Photocatalytic degradation of DDT mediated in aqueous semiconductor slurries by simulated sunlight. 1989, 8, 997-1002  Electrochemical reduction of carbon dioxide mediated by molecular catalysts. 1989, 93, 245-268  Photocatalysis on small particle TiO2 catalysts. reaction intermediates and reaction mechanisms. 1989, 11, 67-106  Titanium dioxide catalysed photo-oxidation of methyl violet. 1989, 46, 247-252	1 50 234 115 7

2193	Selective Electrocatalytic Reduction of Carbon Dioxide to Methanol on Ru-modified Electrode. <b>1989</b> , 18, 1215-1218	12
2192	Effects of Size Quantization of Zinc Sulfide Microcrystallites on Photocatalytic Reduction of Carbon Dioxide. <b>1990</b> , 19, 1483-1486	35
2191	Bacteria-Like Fixation of Carbon Dioxide under UV-Light Irradiation with Defect-Free ZnS Quantum Crystallites. <b>1990</b> , 19, 931-932	16
2190	Solar energy fixation of carbon dioxide via cadmium sulphide and other semiconductor photocatalysts. <b>1990</b> , 45, 27-33	33
2189	Incorporation of transition metal in porous glass-ceramics of TiO2-SiO2 system. <b>1990</b> , 25, 2929-2933	2
2188	Production of ultra fine SiC powder from SiC bulk by arc-plasma irradiation under different atmospheres and its application to photocatalysts. <b>1990</b> , 25, 3101-3104	36
2187	The reduction of aqueous carbonate to methanol, photocatalysed by TiO2 phthalocyanine. <b>1990</b> , 41, 143-146	3
2186	Colloidal semiconductors as photocatalysts for solar energy conversion. <b>1990</b> , 44, 83-98	119
2185	Photochemical reduction of carbon dioxide to formate catalyzed by 2,2t -bipyridine- or 1,10-phenanthroline-ruthenium(II) complexes. <b>1990</b> , 382, 157-173	188
2184	Ligand effects of ruthenium 2,2?-bipyridine and 1,10-phenanthroline complexes on the electrochemical reduction of CO2. <b>1990</b> , 2155-2160	107
2183	Photochemical Reactions of Neptunium in Nitric Acid Solution Containing Photocatalyst. <b>1991</b> , 28, 27-32	8
2182	Utilization of Carbon Dioxide: A Strategy for the Control of its Level in the Atmosphere. <b>1991</b> , 517-550	4
2181	Photokilling of Malignant Cells with Ultrafine TiO2Powder. <b>1991</b> , 64, 1268-1273	202
2180	Heterogeneous Photocatalysis, IX. Zinc Sulfide Catalyzed Photoreduction of Carbon Dioxide. <b>1991</b> , 124, 1161-1162	23
2179	Photolysis of p-type €CuCNS dispersions in aqueous medium. <b>1991</b> , 60, 229-233	2
2178	A novel photosynthetic mimic reaction catalysed by K[Ru(H-EDTA)Cl] [12H2O; reduction of carbon dioxide to formate and formaldehyde in the presence of an aqueous suspension of Pt[1dSRuO2. <b>1991</b> , 60, 311-318	10
2177	Increment of Photocatalytic Killing of Cancer Cells Using TiO2with the Aid of Superoxide Dismutase. <b>1992</b> , 21, 427-430	80
2176	Photosynthesis of methanol and methane from CO2 and H2O molecules on a ZnO surface. <b>1992</b> , 279, L236-L242	14

2175	Photocatalysed reduction of CO2 in aqueous TiO2 suspension mixed with copper powder. <b>1992</b> , 64, 255-258	105
2174	Photofixation of carbon dioxide by a hydroxo-oxobis(8-quinolyloxo)vanadium(V)-MV2+-ethylenediaminetetraacetic acid dispersion system. <b>1992</b> , 67, 329-336	4
2173	Photosynthesis of methanol and methane from CO2 and H2O molecules on a ZnO surface. <b>1992</b> , 279, L236-L242	4
2172	Photocatalytic reduction of carbon dioxide in aqueous semiconductor suspensions. <b>1992</b> , 13, 695-696	12
2171	Photo-assisted catalytic reduction of CO2 with pre-adsorbed ammonia on silica-supported iron. <b>1992</b> , 73, 225-235	3
2170	Catalytic behavior of silicon carbide for hydrogen activation. <b>1992</b> , 14, 75-87	
2169	Biochemical application of photoelectrochemistry: photokilling of malignant cells with TiO2 powder. <b>1993</b> , 38, 153-157	52
2168	Photocatalytic reduction of carbon dioxide to methane and acetic acid by an aqueous suspension of metal-deposited TiO2. <b>1993</b> , 72, 269-271	157
2167	Degradation of formic acid over semiconducting membranes supported on glass: effects of structure and electronic doping. <b>1993</b> , 28, 345-361	47
2166	Temperature dependence of the luminescence of TiO2 powder. <b>1993</b> , 56, 363-366	85
2165	Reactivity of oxygen-deficient Mn(II)-bearing ferrites (MnxFe3-xO4-ДO?x?1, №0) toward CO2 decomposition to carbon. <b>1993</b> , 28, 6753-6760	37
2164	Photochemical and Photoelectrochemical Reduction of Carbon Dioxide. <b>1993</b> , 263-289	5
2163	Photocatalysis: Reduction of Carbon Dioxide and Water-Gas-Shift Reaction Photocatalyzed by 2,2?-Bipyridine or 1,10-Phenanthroline Cobalt(II), Ruthenium(II), Rhenium(I) and Iridium(III) Complexes. <b>1993</b> , 217-245	25
2162	THERMODYNAMIC, KINETIC, AND PRODUCT CONSIDERATIONS IN CARBON DIOXIDE REACTIVITY. 1993, 1-18	12
2161	ELECTROCHEMICAL REDUCTION OF CO2 AT SOLID ELECTRODES. 1993, 145-216	34
2160	Electrochemical and Photoelectrochemical Carbon Dioxide Reduction. <b>1994</b> , 388-395	2
2159	Photokilling of T-24 human bladder cancer cells with titanium dioxide. <b>1994</b> , 70, 1107-11	160
2158	Photocatalytic reduction of carbon dioxide to hydrocarbon using copper-loaded titanium dioxide. <b>1994</b> , 53, 187-190	151

2157	CO2 decomposition with mangano-w\(\text{lite}\). <b>1994</b> , 29, 999-1003	13
2156	A new reversible chemical system for efficient utilization of carbonaceous compounds. <b>1994</b> , 19, 771-778	4
2155	Electrochemical reduction of carbon dioxide at elevated pressure on semiconductor electrodes in aqueous solution. <b>1994</b> , 375, 379-382	12
2154	Photocatalytic reaction of H2O+CO2 over pure and doped Rh/TiO2. <b>1994</b> , 27, 61-65	51
2153	Photocatalytic reduction of CO2 with H2O on TiO2 and Cu/TiO2 catalysts. <b>1994</b> , 20, 815-823	136
2152	Photocatalysed CO2-fixation to formate and H2-evolution by eosin-modified PdIIiO2 powders. <b>1994</b> , 2113-2114	19
2151	A New Route to Generation of co With a Redox System of Mixture of Metal Oxide and Carbon. <b>1994</b> , 344, 151	
2150	Reduction of CO2with H2O on TiO2(100) and TiO2(110) Single Crystals under UV-irradiation. <b>1994</b> , 23, 855-858	51
2149	Photocatalytic Activities for Carbon Dioxide Reduction of TiO2Microcrystals Prepared in SiO2Matrices Using a Sol <b>©</b> el Method. <b>1994</b> , 23, 653-656	33
2148	Deactivation in Hydrogenolysis Catalysts: The Effect of SnOx on Pt. <b>1994</b> , 579-584	1
2147	Photoreduction of carbon dioxide using chalcogenide semiconductor microcrystals. <b>1995</b> , 86, 191-196	70
2146	Prebiotic polymerization: oxidative polymerization of 2,3-dimercapto-1-propanol on the surface of iron(III) hydroxide oxide. <b>1995</b> , 25, 53-60	7
2145	Enhanced conversion of CO2 with a mixed system of metal oxide and carbon. <b>1995</b> , 20, 869-876	4
2144	Photocatalytic reduction of CO2 with H2O on various titanium oxide catalysts. <b>1995</b> , 396, 21-26	376
2143	Semiconductor photocatalysis. Part 20. <b>R</b> ole of surface in the photoreduction of carbon dioxide catalysed by colloidal ZnS nanocrystallites in organic solvent. <b>1996</b> , 92, 2401-2411	71
2142	Thiosulfate oxidation: Catalysis of synthetic sphalerite doped with transition metals. <b>1996</b> , 60, 4701-4710	20
2141	Photoinduced surface chemistry. <b>1996</b> , 1, 630-635	27
2140	Formation of Methanol by Microwave-Plasma Reduction of CO2with H2O. <b>1996</b> , 69, 241-244	24

2139	Mitigation of CO2 greenhouse effect. Combined disposal and utilisation by photocatalysis. <b>1996</b> , 37, 1345-1350	11
2138	A Novel Coordination Structure of Dichromates Bonding to Copper (II): [Cu(bipy)2(Cr2O7)] [2 H2O. 1996, 31, 453-458	7
2137	Electrocatalytic reduction of carbon dioxide by substituted pyridine and pyrazole complexes of palladium. <b>1996</b> , 41, 2773-2780	21
2136	Effect of CO2 pressure on photocatalytic reduction of CO2 using TiO2 in aqueous solutions. <b>1996</b> , 98, 87-90	84
2135	Solar photocatalytic processes for the purification of water: State of development and barriers to commercialization. <b>1996</b> , 56, 429-437	70
2134	Photoelectrochemical reduction of carbon dioxide in aqueous solutions on p-GaP electrodes: an a.c. impedance study with phase-sensitive detection. <b>1996</b> , 402, 97-105	39
2133	Photoelectrochemical characterization of GaAs and doped Fe/sub 2/O/sub 3/ semiconductive electrodes.	
2132	Semiconductor Photocatalysis. Part 22. Visible-Light Induced Photoreduction of CO2with CdS Nanocrystallites Importance of the Morphology and Surface Structures Controlled through Solvation byN,N-Dimethylformamide. <b>1997</b> , 70, 2063-2070	27
2131	Photocatalytic Reduction of CO2with H2O on Ti-MCM-41 and Ti-MCM-48 Mesoporous Zeolites at 328 K. <b>1997</b> , 26, 659-660	76
2130	Photocatalytic Reduction of CO2with H2O on Titanium Oxides Anchored within Micropores of Zeolites: Effects of the Structure of the Active Sites and the Addition of Pt. <b>1997</b> , 101, 2632-2636	362
2129	Chapter Six. <b>1997</b> , 499-623	3
2128	Photoreduction of carbon dioxide on quantized semiconductor nanoparticles in solution. <b>1997</b> , 39, 169-175	76
2127	Effect of solvents on photocatalytic reduction of carbon dioxide using TiO2 nanocrystal photocatalyst embedded in SiO2 matrices. <b>1997</b> , 108, 187-192	73
2126	The study of the photokilling effect and mechanism of ultrafine TiO2 particles on U937 cells. <b>1997</b> , 108, 229-233	69
2125	Photoreduction of carbon dioxide catalysed by free and supported zinc and cadmium sulphide powders. <b>1997</b> , 111, 223-228	68
2124	A Review of Sunscreen Safety and Efficacy. <b>1998</b> , 68, 243-256	262
2123	Photocatalytic reduction of CO2 using surface-modified CdS photocatalysts in organic solvents. <b>1998</b> , 113, 93-97	135
2122	Photocatalytic reduction of carbon dioxide in the presence of nitrate using TiO2 nanocrystal photocatalyst embedded in SiO2 matrices. <b>1998</b> , 115, 227-230	40

2121	Photocatalytic reduction of high pressure carbon dioxide using TiO2 powders with a positive hole scavenger. <b>1998</b> , 115, 223-226	130
2120	Uric acid photo-oxidation assay: in vitro comparison of sunscreening agents. <b>1998</b> , 20, 1-18	25
2119	Article. <b>1998</b> , 76, 228-233	2
2118	Photoassisted Degradation (in the UV) of Phenyltin(IV) Chlorides in the Presence of Titanium Dioxide. <b>1998</b> , 14, 388-395	19
2117	Urea Photosynthesis from Inorganic Carbon and Nitrogen Compounds Using TiO2 as Photocatalyst. <b>1998</b> , 14, 1899-1904	13
2116	New approaches in CO2 reduction. <b>1998</b> , 114, 31-42	2
2115	Photocatalytic reduction and fixation of CO2 on cadmium sulfide nanocrystallites. <b>1998</b> , 183-188	5
2114	Effect of solvents on photocatalytic reduction of carbon dioxide using semiconductor photocatalysts. <b>1998</b> , 553-556	2
2113	High Photocurrent Quantum Yields in Short Wavelengths for Nanocrystalline Anatase-Type TiO2Film Electrodes Compared with Those for Rutile-Type. <b>1998</b> , 71, 2119-2125	23
2112	Novel photocatalytic product from m-nitrocinnamic acid and alcohol mediated by TiO2. <b>1999</b> , 40, 1145-1148	6
2111	Energetics and kinetics of the prebiotic synthesis of simple organic acids and amino acids with the FeS-H2S/FeS2 redox couple as reductant. <b>1999</b> , 29, 5-32	67
2440		
2110	Effects of Particle Size of TiO2 on Photocatalytic Degradation of Methylene Blue in Aqueous Suspensions. <b>1999</b> , 38, 373-379	286
2110		286
	Suspensions. <b>1999</b> , 38, 373-379  Photocatalytic degradation of 5-nitro-1,2,4-triazol-3-one NTO in aqueous suspension of TiO2.	
2109	Photocatalytic degradation of 5-nitro-1,2,4-triazol-3-one NTO in aqueous suspension of TiO2. Comparison with Fenton oxidation. <b>1999</b> , 38, 1561-70  Photocatalytic Reduction of CO2with H2O on Titanium Oxides Prepared within the FSM-16	43
2109 2108	Photocatalytic degradation of 5-nitro-1,2,4-triazol-3-one NTO in aqueous suspension of TiO2. Comparison with Fenton oxidation. 1999, 38, 1561-70  Photocatalytic Reduction of CO2with H2O on Titanium Oxides Prepared within the FSM-16 Mesoporous Zeolite. 1999, 28, 1135-1136  Preparation of a UV-absorbed Transparent Monolithic Titanium Oxide Gel by the Catalytic Sol-Gel Process with a Phenanthroline Hydrochloride Catalyst. 1999, 28, 177-178	43
2109 2108 2107	Photocatalytic degradation of 5-nitro-1,2,4-triazol-3-one NTO in aqueous suspension of TiO2. Comparison with Fenton oxidation. 1999, 38, 1561-70  Photocatalytic Reduction of CO2with H2O on Titanium Oxides Prepared within the FSM-16 Mesoporous Zeolite. 1999, 28, 1135-1136  Preparation of a UV-absorbed Transparent Monolithic Titanium Oxide Gel by the Catalytic Sol-Gel Process with a Phenanthroline Hydrochloride Catalyst. 1999, 28, 177-178	43 51 2

### (2002-2000)

2103	A New Electrochemical Method To Prepare Mesoporous Titanium(IV) Oxide Photocatalyst Fixed on Alumite Substrate. <b>2000</b> , 104, 4204-4209	77
2102	Abiological formation of formic acid on rocks in nature. <b>2000</b> , 15, 91-95	9
2101	Heterogeneous photocatalytic decomposition of halosubstituted benzyl alcohols on semiconductor particles in aqueous media. <b>2000</b> , 41, 1451-5	9
2100	Hydrogen gas evolution and carbon dioxide fixation with visible light by chlorophyllin coupled with polyethylene glycol. <b>2000</b> , 11, 8-13	42
2099	Mechanistic Study of CO2 Photoreduction in Ti Silicalite Molecular Sieve by FT-IR Spectroscopy. <b>2000</b> , 104, 7834-7839	113
2098	Photocatalytic Reduction of CO2 with H2O on Ti配eolite Photocatalysts: Effect of the Hydrophobic and Hydrophilic Properties. <b>2001</b> , 105, 8350-8355	256
2097	Intrazeolite Photochemistry. 26. Photophysical Properties of Nanosized TiO2Clusters Included in Zeolites Y, ∄and Mordenite. <b>2001</b> , 13, 715-722	45
2096	Doping of Nb2O5 in photocatalytic nanocrystalline/nanoporous WO3 films. <b>2001</b> , 388, 68-72	19
2095	Adsorption and photocatalytic decomposition of odor compounds containing sulfur using TiO2/SiO2 bead. <b>2001</b> , 172, 247-251	54
2094	Glutamate synthesis via photoreduction of NADP+ by photostable chlorophyllide coupled with polyethylene-glycol. <b>2001</b> , 76, 86-90	17
2093	Electrodeposition of TiO2 photocatalyst into nano-pores of hard alumite. <b>2001</b> , 46, 2819-2824	61
2092	The role of the nanoscale in surface reactions: CO2 on CdSe. <b>2002</b> , 89, 075506	19
2091	Preparation of titanium(IV) oxide film on a hard alumite substrate. 2002, 17, 2373-2378	2
2090	Photocatalytic Reduction of CO2with H2O on Various Titanium Oxide Catalysts. <b>2002</b> , 330-343	10
2089	Semiconductor nanoparticles. <b>2002</b> , 129-182	1
2088	Photocatalytic Reduction of CO2 with H2O on Titanium Oxides Prepared within Zeolites and Mesoporous Molecular Sieves. <b>2002</b> , 70, 402-408	15
2087	Characterization of self-standing Ti-containing porous silica thin films and their reactivity for the photocatalytic reduction of CO2 with H2O. <b>2002</b> , 74, 241-248	106
2086	Bio-CO2 fixation with formate dehydrogenase from Saccharomyces cerevisiae and water-soluble zinc porphyrin by visible light. <b>2002</b> , 24, 1931-1934	65

2085	Reduction of carbon dioxide with water under concentrated sunlight using photocatalyst combined with Fe-based catalyst. <b>2003</b> , 41, 387-396	98
2084	The design and development of highly reactive titanium oxide photocatalysts operating under visible light irradiation. <b>2003</b> , 216, 505-516	1428
2083	Photocatalytic activities of the nano-sized TiO2-supported Y-zeolites. <b>2003</b> , 4, 5-18	184
2082	Surface treatment of silicon carbide using TiO2(IV) photocatalyst. <b>2003</b> , 125, 6558-62	63
2081	Diamond formation by reduction of carbon dioxide at low temperatures. <b>2003</b> , 125, 9302-3	75
2080	Photocatalytic Reduction of CO2 with H2O on Ti-Containing Mesoporous Silica Hydrophobically Modified Using Fluoride Ions. <b>2004</b> , 153, 289-294	8
2079	Photochemical synthesis of formic acid from CO2 with formate dehydrogenase and water-soluble zinc porphyrin. <b>2004</b> , 27, 121-125	71
2078	A feasibility study of a new photosynthesis bioreactor design using TiO2 particles combined with enzymes. <b>2004</b> , 15, 51-61	13
2077	Photosensitized degradation of dyes in polyoxometalate solutions versus TiO2 dispersions under visible-light irradiation: mechanistic implications. <b>2004</b> , 10, 1956-65	272
2076	Photocatalytic reduction of carbonate in aqueous solution by UV/TiO2 process. <b>2004</b> , 212, 191-196	59
2075	Photo-catalytic reduction of carbon dioxide to methane using TiO2 as suspension in water. <b>2004</b> , 163, 503-508	119
2074	Photocatalytic Reduction of CO2 to CO in the Presence of H2 or CH4 as a Reductant over MgO. <b>2004</b> , 108, 346-354	212
2073	CO2 Splitting by H2O to CO and O2 under UV Light in TiMCM-41 Silicate Sieve. <b>2004</b> , 108, 18269-18273	110
2072	KHCO3 mineralization self-assembled on aminopropyl organosilica. <b>2004</b> , 20, 273-5	5
2071	Visible Light-induced Formic Acid Synthesis from HCO3Dwith Formate Dehydrogenase and Water-soluble Zinc Porphyrin. <b>2004</b> , 47, 27-31	40
2070	Photochemical and Enzymatic Synthesis of Methanol from HCO3With Dehydrogenases and Zinc Porphyrin. <b>2004</b> , 33, 1544-1545	34
2069	Preparation, Characterization, and Reactivities of Highly Functional Titanium Oxide-Based Photocatalysts Able to Operate under UVI∕sible Light Irradiation: Approaches in Realizing High Efficiency in the Use of Visible Light. <b>2004</b> , 77, 1427-1442	236
2068	Bioinorganic photochemistry: frontiers and mechanisms. <b>2005</b> , 105, 2647-94	620

2067 Characteristics of atomic layer deposited TiO2 films and their photocatalytic activity. <b>2006</b> , 24, 1535-1539	38
Methane generated during photocatalytic redox reaction of alcohols on TiO2 suspension in aqueous solutions. <b>2006</b> , 32, 725-736	18
2065 Photochemical and enzymatic synthesis of formic acid from CO2 with chlorophyll and dehydrogenase system. <b>2006</b> , 7, 173-176	64
Photochemical reduction of transition metal substituted heteropoly anions in nonpolar solutions. <b>2006</b> , 110, 10576-80	4
2063 . 2006,	109
Enhancing Effect on Photocatalitic Activity of TiO2/Pt/Al2O3 and TiO2/Sn/Al2O3 Films on Anodically Oxidized Aluminum. <b>2006</b> , 47, 868-873	
2061 Bimetallic redox sites for photochemical CO2 splitting in mesoporous silicate sieve. <b>2006</b> , 9, 207-213	36
2060 Photocatalytic Process for CO2Emission Reduction from Industrial Flue Gas Streams. <b>2006</b> , 45, 2558-2568	276
Electronic properties of ruthenium sulfidedarbon cluster composite material obtained by calcination of an alternating ruthenium behavior copolymer. <b>2006</b> , 41, 7302-7307	5
Characteristics of TiOx films prepared by chemical vapor deposition using tetrakis-dimethyl-amido-titanium and water. <b>2006</b> , 498, 254-258	54
2057 Carbon Dioxide Reduction and Uses as a Chemical Feedstock. <b>2006</b> , 1-41	13
2056 Thermal Reduction of CO 2 in the Presence of H 2 S. <b>2006</b> , 24, 117-127	4
Liquid Injection Atomic Layer Deposition of TiO[sub x] Films Using Ti[OCH(CH[sub 3])[sub 2]][sub 4]. <b>2007</b> , 154, G134	18
Photochemical and Enzymatic Synthesis of Malic Acid from Pyruvic Acid and HCO3- with Combination System of Zinc Chlorin-e6 and Malic Enzyme in Aqueous Medium. <b>2007</b> , 50, 272-277	10
2053 Reduction of aqueous carbonate photocatalysed by treated semiconductors. <b>2007</b> , 55, 391-396	9
2052 Electrocatalytic conversion of CO2 to long carbon-chain hydrocarbons. <b>2007</b> , 9, 671	167
Photocatalytic reduction of carbon dioxide using sol-gel derived titania-supported CoPc catalysts. <b>205</b> 7 <b>2007</b> , 6, 695-700	78
2050 Utilisation of CO2 as a chemical feedstock: opportunities and challenges. <b>2007</b> , 2975-92	1138

2049	Visible light and enzymatic induced synthesis of malic acid from pyruvic acid and HCO3- with the combination system of zinc chlorophyll derivative and malic enzyme in water media. <b>2007</b> , 8, 523-526	20
2048	Photocatalytic reduction of carbon dioxide on NiO/InTaO4 under visible light irradiation. <b>2007</b> , 8, 1546-1549	170
2047	Carbon dioxide activation by surface excess electrons: an EPR study of the CO2- radical ion adsorbed on the surface of MgO. <b>2007</b> , 13, 1261-7	28
2046	Photoreduction of carbon dioxide with H2 and H2O over TiO2 and ZrO2 in a circulated photocatalytic reactor. <b>2007</b> , 91, 1765-1774	231
2045	The effect of iron doping on the adsorption of methanol on TiO2 probed by sum frequency generation. <b>2007</b> , 339, 86-93	12
2044	Photodriven reduction and oxidation reactions on colloidal semiconductor particles: Implications for prebiotic synthesis. <b>2007</b> , 185, 301-311	46
2043	Parameter Effects and Reaction Pathways of Photoreduction of CO2 over TiO2/SO42 Photocatalyst. <b>2007</b> , 28, 528-534	24
2042	Chemical Reduction of CO2 to Different Products during Photo Catalytic Reaction on TiO2 under Diverse Conditions: an Overview. <b>2007</b> , 16, 217-226	110
2041	The amounts of hydroxyl radicals generated by titanium dioxide and 3.5% hydrogen peroxide under 405-nm diode laser irradiation. <b>2007</b> , 17, 1062-1066	34
2040	Bleaching effect of a 405-nm diode laser irradiation used with titanium dioxide and 3.5% hydrogen peroxide. <b>2007</b> , 17, 1166-1170	14
2039	Formation of different products during photo-catalytic reaction on TiO2 suspension in water with and without 2-propanol under diverse ambient conditions. <b>2007</b> , 33, 631-644	21
2038	Photoinduced oxidation of benzhydrol over lanthana modified sol-gel titania. <b>2007</b> , 42, 101-105	3
2037	Dye sensitized CO2 reduction over pure and platinized TiO2. <b>2007</b> , 44, 523-528	71
2036	Recent Developments in Photocatalysis. <b>2008</b> , 6, 55-84	35
2035	Heterogeneous photocatalytic degradation of organic contaminants over titanium dioxide: A review of fundamentals, progress and problems. <b>2008</b> , 9, 1-12	2114
2034	Effect of H2 gas as a reductant on photoreduction of CO2 over a Ga2O3 photocatalyst. <b>2008</b> , 467, 191-194	102
2033	Electronic behavior of calcined material obtained from 2,2-diphenylphosphino-1,1-binaphthyldichloro palladium. <b>2008</b> , 148, 274-278	2
2032	Electronic behavior of calcined material obtained by microwave treatment of a tin-O-phenylene-O hybrid copolymer. <b>2008</b> , 82, 1172-1176	1

2031	Photocatalytic reduction of CO2 over TiO2 based catalysts. <b>2008</b> , 62, 1-9	141
2030	Selective solar-driven reduction of CO2 to methanol using a catalyzed p-GaP based photoelectrochemical cell. <b>2008</b> , 130, 6342-4	60 <del>7</del>
2029	Synthesis and Characterization of Thermally Stable Nanotubular TiO2 and Its Photocatalytic Activity. <b>2008</b> , 112, 18772-18775	39
2028	Tailored Mesoporous Silicas: From Confinement Effects to Catalysis. <b>2009</b> , 1217, 1	
2027	NATURE-LIKE PHOTOSYNTHESIS OF WATER AND CARBON DIOXIDE WITH FEMTOSECOND LASER INDUCED SELF-ASSEMBLED METAL NANOSTRUCTURES. <b>2009</b> , 23, 5849-5857	10
2026	Nanostructured Photocatalysts and Their Applications in the Photocatalytic Transformation of Lignocellulosic Biomass: An Overview. <b>2009</b> , 2, 2228-2258	141
2025	Photocatalytic Reduction of Greenhouse Gas CO2 to Fuel. <b>2009</b> , 13, 30-40	114
2024	Application of Highly Functional Ti-Oxide-Based Photocatalysts in Clean Technologies. <b>2009</b> , 52, 1651-1659	25
2023	Electrosynthesis of TiO2 oxide film on ITO substrate and electrochemical comparative study of the oxide with its hydrated gel. <b>2009</b> , 15, 169-176	7
2022	Plasmon induced electron transfer at goldIIiO2 interface under femtosecond near-IR two-photon excitation. <b>2009</b> , 518, 861-864	22
2021	Formation of C60 by reduction of CO2. <b>2009</b> , 50, 42-45	18
2020	CO2 reforming into fuel using TiO2 photocatalyst and gas separation membrane. <b>2009</b> , 148, 341-349	22
2019	Photochemical and enzymatic methanol synthesis from HCO3lby dehydrogenases using water-soluble zinc porphyrin in aqueous media. <b>2009</b> , 86, 109-113	36
2018	Photoinduced activation of CO2 on Ti-based heterogeneous catalysts: Current state, chemical physics-based insights and outlook. <b>2009</b> , 2, 745	578
2017	Conclusions and New Directions. <b>2009</b> , 315-345	
2016	Development of alternative photocatalysts to TiO2: Challenges and opportunities. <b>2009</b> , 2, 1231	1024
2015	On the origin of life in the zinc world: 1. Photosynthesizing, porous edifices built of hydrothermally precipitated zinc sulfide as cradles of life on Earth. <b>2009</b> , 4, 26	73
2014	Controlled Fabrication of Multiwall Anatase TiO2 Nanotubular Architectures. <b>2009</b> , 21, 2574-2576	48

Advancing the frontiers in nanocatalysis, biointerfaces, and renewable energy conversion by innovations of surface techniques. <b>2009</b> , 131, 16589-605	457
Affect of Pressure on Photoreduction of CO2 to Acetaldehyde in Aqueous Suspensions of TiO2. <b>2009</b> ,	1
Selective ethanol formation from photocatalytic reduction of carbon dioxide in water with BiVO4 photocatalyst. <b>2009</b> , 11, 210-213	222
2010 High-rate solar photocatalytic conversion of CO2 and water vapor to hydrocarbon fuels. <b>2009</b> , 9, 731-7	874
2009 PHOTOELECTROCHEMICAL CELLS   Overview. <b>2009</b> , 1-9	1
Photofunctional Zeolites and Mesoporous Materials Incorporating Single-Site Heterogeneous Catalysts. <b>2009</b> , 605-627	1
2007 Toward solar fuels: photocatalytic conversion of carbon dioxide to hydrocarbons. <b>2010</b> , 4, 1259-78	1236
2006 Photocatalytic Reduction of CO2 Using H2 as Reductant over Solid Base Photocatalysts. <b>2010</b> , 15-24	2
2005 Photoelectrochemistry and Applications. <b>2010</b> , 207-308	
2004 In situ DRIFTS study of photocatalytic CO2 reduction under UV irradiation. <b>2010</b> , 4, 120-126	81
2003 WO3/TiO2 nanotubes with strongly enhanced photocatalytic activity. <b>2010</b> , 16, 8993-7	93
Visible-Light-Induced Selective CO2 Reduction Utilizing a Ruthenium Complex Electrocatalyst Linked to a p-Type Nitrogen-Doped Ta2O5 Semiconductor. <b>2010</b> , 122, 5227-5231	59
Visible-light-induced selective CO2 reduction utilizing a ruthenium complex electrocatalyst linked to a p-type nitrogen-doped Ta2O5 semiconductor. <b>2010</b> , 49, 5101-5	294
Photocatalytic reduction of CO2 using H2 as reductant over ATaO3 photocatalysts (A = Li, Na, K). <b>2000 2010</b> , 96, 565-568	122
1999 Formation of highly crystallized TiO2(B) and its photocatalytic behavior. <b>2010</b> , 93, 368-375	62
Tetraaza-macrocyclic cobalt(II) and nickel(II) complexes as electron-transfer agents in the photo(electro)chemical and electrochemical reduction of carbon dioxide. <b>2010</b> , 103, 288-295	135
	135 15

## (2011-2010)

1995	Reforming Performance and Visible Light Responsibility of Cr-Doped Prepared by Sol-Gel and Dip-Coating Method. <b>2010</b> , 2010, 1-9	5
1994	TiO2-Based Photocatalysis for Organic Synthesis. <b>2010</b> , 623-645	9
1993	Efficient and clean photoreduction of CO(2) to CO by enzyme-modified TiO(2) nanoparticles using visible light. <b>2010</b> , 132, 2132-3	354
1992	Visible Light Photoreduction of CO2 Using CdSe/Pt/TiO2 Heterostructured Catalysts. <b>2010</b> , 1, 48-53	286
1991	Photochemical, Electrochemical, and Photoelectrochemical Reduction of Carbon Dioxide. 291-316	24
1990	Water Splitting by Nanocrystalline TiO2 in a Complete Photoelectrochemical Cell Exhibits Efficiencies Limited by Charge Recombination. <b>2010</b> , 114, 4208-4214	212
1989	Turning carbon dioxide into fuel. <b>2010</b> , 368, 3343-64	325
1988	A Theoretical Study of CO2 Anions on Anatase (101) Surface. <b>2010</b> , 114, 21474-21481	132
1987	The teraton challenge. A review of fixation and transformation of carbon dioxide. <b>2010</b> , 3, 43-81	1614
1986	Advances in selective conversions by heterogeneous photocatalysis. <b>2010</b> , 46, 7074-89	322
1985	Artificial photosynthesis over crystalline TiO2-based catalysts: fact or fiction?. <b>2010</b> , 132, 8398-406	303
1984	High-flux solar-driven thermochemical dissociation of CO2 and H2O using nonstoichiometric ceria. <b>2010</b> , 330, 1797-801	1080
1983	Electrochemistry of Metal Chalcogenides. <b>2010</b> ,	109
1982	Photocatalytic reduction of carbon dioxide (CO2). <b>2010</b> , 463-501	1
1981	Artificial photosynthesis: semiconductor photocatalytic fixation of CO2 to afford higher organic compounds. <b>2011</b> , 40, 5151-8	125
1980	Synthesis of ZnO nanorod grafted TiO2 nanotube 3-D arrayed heterostructure as supporting platform for nanoparticle deposition. <b>2011</b> , 21, 14056	31
1979	CO2 Adsorption, Diffusion, and Electron-Induced Chemistry on Rutile TiO2(110): A Low-Temperature Scanning Tunneling Microscopy Study. <b>2011</b> , 115, 12095-12105	48
1978	Photochemical reduction of COllusing TiOlleffects of organic adsorbates on TiOlland deposition of Pd onto TiOll <b>2011</b> , 3, 2594-600	257

1977	Synthesis, Structural Correlations, and Photocatalytic Properties of TiO2 Nanotube/SnO2 <b>P</b> d Nanoparticle Heterostructures. <b>2011</b> , 115, 1600-1607	34
1976	Heterogeneous Photocatalytic Conversion of Carbon Dioxide. <b>2011</b> , 531-559	2
1975	Carbon nanoparticles as visible-light photocatalysts for efficient CO2 conversion and beyond. <b>2011</b> , 133, 4754-7	499
1974	Solar Cells and Photocatalysts. <b>2011</b> , 571-605	5
1973	The design, fabrication, and photocatalytic utility of nanostructured semiconductors: focus on TiO2-based nanostructures. <b>2011</b> , 4, 35-65	164
1972	Synthesis of anatase TiO2 rods with dominant reactive {010} facets for the photoreduction of CO2 to CH4 and use in dye-sensitized solar cells. <b>2011</b> , 47, 8361-3	185
1971	Photocatalytic reduction of COEfrom molecules to semiconductors. <b>2011</b> , 303, 151-84	95
1970	Synthesis and deposition of ultrafine Pt nanoparticles within high aspect ratio TiO2 nanotube arrays: application to the photocatalytic reduction of carbon dioxide. <b>2011</b> , 21, 13429	146
1969	Minimizing graphene defects enhances titania nanocomposite-based photocatalytic reduction of CO2 for improved solar fuel production. <b>2011</b> , 11, 2865-70	499
1968	Origins of Life: The Primal Self-Organization. <b>2011</b> ,	5
1967	Ni@NiO CoreBhell Structure-Modified Nitrogen-Doped InTaO4 for Solar-Driven Highly Efficient CO2 Reduction to Methanol. <b>2011</b> , 115, 10180-10186	149
1966	Electron-induced dissociation of CO2 on TiO2(110). <b>2011</b> , 133, 10066-9	250
1965	Ion-exchange synthesis of a micro/mesoporous Zn2GeO4 photocatalyst at room temperature for photoreduction of CO2. <b>2011</b> , 47, 2041-3	111
1964	NANOSTRUCTURED PHOTOELECTRODES FOR SOLAR POWERED APPLICATIONS. <b>2011</b> , 245-280	
1963	High-yield synthesis of ultrathin and uniform BiWOI3quare nanoplates benefitting from photocatalytic reduction of COIInto renewable hydrocarbon fuel under visible light. <b>2011</b> , 3, 3594-601	324
1962	Crystal facet engineering of semiconductor photocatalysts: motivations, advances and unique properties. <b>2011</b> , 47, 6763-83	753
1961	Optofluidics for energy applications. <b>2011</b> , 5, 583-590	223
1960	Photocatalytic Conversion of CO2 to Hydrocarbon Fuels via Plasmon-Enhanced Absorption and Metallic Interband Transitions. <b>2011</b> , 1, 929-936	433

1959 Solar fuels. 656-674 1 1958 Reforming CO2 into Fuel Using a TiO2 Photocatalyst Membrane Reactor. **2011**, A Grant of Photocatalyst Function by the Electrolytic Deposition of FeTiOx to the Hole Inside of Aluminum Anodic Oxidation Films. 2011, 62, 663

1956	CO2 utilisation by photocatalytic conversion to methane and methanol. <b>2011</b> , 3, 142	13
1955	Oxidative photodecarboxylation of hydroxycarboxylic acid derivatives with FSM-16 under visible light irradiation of fluorescent lamp. <b>2011</b> , 59, 906-8	9
1954	Using metal nanostructures to form hydrocarbons from carbon dioxide, water and sunlight. <b>2011</b> , 1, 042124	8
1953	Artificial photosynthesis - CO2towards methanol. <b>2011</b> , 19, 012010	9
1952	Photocatalytic reduction of CO2 over Cu-TiO2 /molecular sieve 5A composite. <b>2011</b> , 87, 995-1001	57
1951	Fighting global warming: The potential of photocatalysis against CO2, CH4, N2O, CFCs, tropospheric O3, BC and other major contributors to climate change. <b>2011</b> , 12, 1-19	141
1950	Photocatalytic reduction of carbon dioxide to methanol by Cu2O/SiC nanocrystallite under visible light irradiation. <b>2011</b> , 20, 145-150	109
1949	Photoreduction of CO2 to methanol over Bi2S3/CdS photocatalyst under visible light irradiation. <b>2011</b> , 20, 413-417	114
1948	Plasmonic enhancement of photocatalytic decomposition of methyl orange under visible light. <b>2011</b> , 277, 149-153	159
1947	Photocatalytic conversion of carbon dioxide into methanol using zinc@opperM(III) (M=aluminum, gallium) layered double hydroxides. <b>2011</b> , 279, 123-135	215
1946	Mechanistic study of hydrocarbon formation in photocatalytic CO2 reduction over Ti-SBA-15. <b>2011</b> , 284, 1-8	107
1945	Enhancement of visible-light photocatalytic efficiency of BiOCl/Bi2O3 by surface modification with WO3. <b>2011</b> , 407, 217-223	47
1944	Solar Fuel Production Based on the Artificial Photosynthesis System. <b>2011</b> , 3, 458-474	94
1943	Role of water and carbonates in photocatalytic transformation of CO2 to CH4 on titania. <b>2011</b> , 133, 3964-71	356
1942	Energetics of the First Life. <b>2011</b> , 3-33	2

1941	Selective CO2 conversion to formate conjugated with H2O oxidation utilizing semiconductor/complex hybrid photocatalysts. <b>2011</b> , 133, 15240-3	405
1940	An Insight into Artificial Leaves for Sustainable Energy Inspired by Natural Photosynthesis. <b>2011</b> , 3, 513-528	55
1939	Mechanistic and Adsorption Studies of Relevance to Photocatalysts on Titanium Grafted Mesoporous Silicalites. <b>2011</b> , 141, 1057-1066	9
1938	Photo-Induced Electron Transfer Between a Reactant Molecule and Semiconductor Photocatalyst: In Situ Doping. <b>2011</b> , 15, 240-258	12
1937	The energy-environment nexus: aerosol science and technology enabling solutions. <b>2011</b> , 5, 299-312	16
1936	Tailoring of Interfaces for the Photoelectrochemical Conversion of Solar Energy. <b>2011</b> , 61-181	4
1935	General synthesis of hybrid TiO2 mesoporous "french fries" toward improved photocatalytic conversion of CO2 into hydrocarbon fuel: a case of TiO2/ZnO. <b>2011</b> , 17, 9057-61	73
1934	Photocatalytic reduction of CO2 in methanol to methyl formate over CuO-TiO2 composite catalysts. <b>2011</b> , 356, 257-61	173
1933	Factors affecting color strength of printing on film-coated tablets by UV laser irradiation: TiO2 particle size, crystal structure, or concentration in the film, and the irradiated UV laser power. <b>2011</b> , 37, 901-6	4
1932	CO2 dissociation activated through electron attachment on the reduced rutile TiO2(110)-1 surface. <b>2011</b> , 84,	59
1931	CO2 adsorption on TiO2(101) anatase: a dispersion-corrected density functional theory study. <b>2011</b> , 135, 124701	100
1930	Photo-induced CO\$_{2}\$ Reduction with GaN Electrode in Aqueous System. <b>2011</b> , 4, 117101	46
1929	Photocatalytic Reduction of CO2 to Methanol Using the InVO4-Based Photocatalysts. <b>2011</b> , 396-398, 2033-2037	4
1928	Incubation Time Free CVD-TiO2 Film Preparation Using Novel Precursor of Ti-DOT. <b>2011</b> , 1288, 1	
1927	Effect of Preparation Condition of Ti Film and Experimental Condition on C Reduction Performance of Ti Photocatalyst Membrane Reactor. <b>2011</b> , 2011, 1-14	3
1926	Degrading Endocrine Disrupting Chemicals from Wastewater by Photocatalysis: A Review. <b>2012</b> , 2012, 1-23	98
1925	Pulsed laser-induced photocatalytic reduction of greenhouse gas CO2 into methanol: A value-added hydrocarbon product over SiC. <b>2012</b> , 47, 1571-6	24
1924	CO\$_{2}\$ Conversion with Light and Water by GaN Photoelectrode. <b>2012</b> , 51, 02BP07	20

1923	Reforming Characteristics under Visible Light Response of Cr- or Ag-Doped Prepared by Sol-Gel and Dip-Coating Process. <b>2012</b> , 2012, 1-12	4
1922	Influence of Reaction Medium on CO2 Photocatalytic Reduction Yields Over Zns-MMT / Vliv Reakfifio Prosten[Na Vff]y Fotokatalytick[Redukce CO2 V Pf]omnosti Zns-MMT. <b>2012</b> , 58, 34-42	13
1921	One-pot synthesis of rutile TiO2 nanoparticle modified anatase TiO2 nanorods toward enhanced photocatalytic reduction of CO2 into hydrocarbon fuels. <b>2012</b> , 29, 185-188	49
1920	Liquid-phase chemical hydrogen storage materials. <b>2012</b> , 5, 9698	620
1919	Synthesis, Characterization, Electronic Structure, and Photocatalytic Behavior of CuGaO2 and CuGa1 $\square$ FexO2 (x = 0.05, 0.10, 0.15, 0.20) Delafossites. <b>2012</b> , 116, 1865-1872	87
1918	Strongly visible-light responsive plasmonic shaped AgX:Ag (X = Cl, Br) nanoparticles for reduction of CO2 to methanol. <b>2012</b> , 4, 5646-50	184
1917	Role of four-fold coordinated titanium and quantum confinement in CO2 reduction at titania surface. <b>2012</b> , 134, 20266-9	39
1916	Photocatalytic Conversion of Diluted CO2 into Light Hydrocarbons Using Periodically Modulated Multiwalled Nanotube Arrays. <b>2012</b> , 124, 12904-12907	23
1915	Photocatalytic conversion of diluted CO2 into light hydrocarbons using periodically modulated multiwalled nanotube arrays. <b>2012</b> , 51, 12732-5	127
1914	Mild reduction of carbon dioxide to methane with tertiary silanes catalyzed by platinum and palladium silyl pincer complexes. <b>2012</b> , 18, 15258-62	133
1913	Visible-Light Photocatalytic Properties of W18O49/TiO2 and WO3/TiO2 Heterocomposites. <b>2012</b> , 142, 1482-1488	23
1912	Selective methanol production from photocatalytic reduction of CO2 on BiVO4 under visible light irradiation. <b>2012</b> , 28, 38-41	111
1911	TiO2 photocatalysis: Design and applications. <b>2012</b> , 13, 169-189	2258
1910	Nanostructured Titania: the current and future promise of Titania nanotubes. <b>2012</b> , 2, 1617	19
1909	Nafion layer-enhanced photosynthetic conversion of CO2 into hydrocarbons on TiO2 nanoparticles. <b>2012</b> , 5, 6066	118
1908	Structure, reactivity, photoactivity and stability of Ti-O based materials: a theoretical comparison. <b>2012</b> , 14, 2333-8	40
1907	Double-heterojunction structure of SbxSn1-xO2/TiO2/CdSe for efficient decomposition of gaseous 2-propanol under visible-light irradiation. <b>2012</b> , 2, 622-630	31
1906	Dynamic emission quenching of a novel ruthenium(II) complex by carbon dioxide in solution. <b>2012</b> , 2, 1296-1298	1

1905	Structure and Dynamics of CO2 on Rutile TiO2(110)-1 <b>1</b> . <b>2012</b> , 116, 26322-26334	55
1904	Photoredox Reactions and the Catalytic Cycle for Carbon Dioxide Fixation and Methanogenesis on Metal Oxides. <b>2012</b> , 116, 9450-9460	104
1903	Surface dependence of CO2 adsorption on Zn2GeO4. <b>2012</b> , 28, 10415-24	58
1902	Heteroatom-Transfer Coupled Photoreduction and Carbon Dioxide Fixation on Metal Oxides. <b>2012</b> , 116, 9461-9471	38
1901	The Effects of Crystal Structure and Electronic Structure on Photocatalytic H2 Evolution and CO2 Reduction over Two Phases of Perovskite-Structured NaNbO3. <b>2012</b> , 116, 7621-7628	213
1900	Size and structure matter: enhanced CO2 photoreduction efficiency by size-resolved ultrafine Pt nanoparticles on TiO2 single crystals. <b>2012</b> , 134, 11276-81	613
1899	Hollow Anatase TiO2 Single Crystals and Mesocrystals with Dominant {101} Facets for Improved Photocatalysis Activity and Tuned Reaction Preference. <b>2012</b> , 2, 1854-1859	162
1898	Ultrathin, single-crystal WO(3) nanosheets by two-dimensional oriented attachment toward enhanced photocatalystic reduction of CO(2) into hydrocarbon fuels under visible light. <b>2012</b> , 4, 3372-7	290
1897	Photocatalytic CO2 reduction by TiO2 and related titanium containing solids. <b>2012</b> , 5, 9217	442
1896	Preparation of tools for lithographically controlled wetting and soft lithography. 2012,	3
1896 1895	Preparation of tools for lithographically controlled wetting and soft lithography. <b>2012</b> ,  Synthesis of TiO2 nanoparticles using novel titanium oxalate complex towards visible light-driven photocatalytic reduction of CO2 to CH3OH. <b>2012</b> , 437-438, 28-35	3 72
	Synthesis of TiO2 nanoparticles using novel titanium oxalate complex towards visible light-driven photocatalytic reduction of CO2 to CH3OH. <b>2012</b> , 437-438, 28-35	
1895	Synthesis of TiO2 nanoparticles using novel titanium oxalate complex towards visible light-driven photocatalytic reduction of CO2 to CH3OH. <b>2012</b> , 437-438, 28-35  Photoelectrochemical degradation of azo dye over pulsed laser deposited nitrogen-doped TiO2	72
1895 1894	Synthesis of TiO2 nanoparticles using novel titanium oxalate complex towards visible light-driven photocatalytic reduction of CO2 to CH3OH. <b>2012</b> , 437-438, 28-35  Photoelectrochemical degradation of azo dye over pulsed laser deposited nitrogen-doped TiO2 thin film. <b>2012</b> , 125, 465-472  Synergy effect over electrodeposited submicron Cu2O films in photocatalytic degradation of	72 38
1895 1894 1893	Synthesis of TiO2 nanoparticles using novel titanium oxalate complex towards visible light-driven photocatalytic reduction of CO2 to CH3OH. <b>2012</b> , 437-438, 28-35  Photoelectrochemical degradation of azo dye over pulsed laser deposited nitrogen-doped TiO2 thin film. <b>2012</b> , 125, 465-472  Synergy effect over electrodeposited submicron Cu2O films in photocatalytic degradation of methylene blue. <b>2012</b> , 258, 4934-4938  Influence of Li-doping on structural characteristics and photocatalytic activity of ZnO nano-powder	7 <sup>2</sup> 3 <sup>8</sup> 4 <sup>8</sup>
1895 1894 1893	Synthesis of TiO2 nanoparticles using novel titanium oxalate complex towards visible light-driven photocatalytic reduction of CO2 to CH3OH. 2012, 437-438, 28-35  Photoelectrochemical degradation of azo dye over pulsed laser deposited nitrogen-doped TiO2 thin film. 2012, 125, 465-472  Synergy effect over electrodeposited submicron Cu2O films in photocatalytic degradation of methylene blue. 2012, 258, 4934-4938  Influence of Li-doping on structural characteristics and photocatalytic activity of ZnO nano-powder formed in a novel solution pyro-hydrolysis route. 2012, 259, 524-537	72 38 48 39
1895 1894 1893 1892	Synthesis of TiO2 nanoparticles using novel titanium oxalate complex towards visible light-driven photocatalytic reduction of CO2 to CH3OH. 2012, 437-438, 28-35  Photoelectrochemical degradation of azo dye over pulsed laser deposited nitrogen-doped TiO2 thin film. 2012, 125, 465-472  Synergy effect over electrodeposited submicron Cu2O films in photocatalytic degradation of methylene blue. 2012, 258, 4934-4938  Influence of Li-doping on structural characteristics and photocatalytic activity of ZnO nano-powder formed in a novel solution pyro-hydrolysis route. 2012, 259, 524-537  On the impact of Cu dispersion on CO2 photoreduction over Cu/TiO2. 2012, 25, 78-82  Generation of fuel from CO2 saturated liquids using a p-Si nanowire? n-TiO2 nanotube array	72 38 48 39

Photocatalytic reduction of CO2 with H2O on various titanium oxide photocatalysts. <b>2012</b> , 2	2,3165 252
Computational screening of dopants for photocatalytic two-electron reduction of CO2 on a (101) surfaces. <b>2012</b> , 5, 6196	natase 106
1885 Engineering TiO2 nanomaterials for CO2 conversion/solar fuels. <b>2012</b> , 105, 53-68	165
Facile fabrication of efficient AgBr-TiO2 nanoheterostructured photocatalyst for degrading pollutants and its photogenerated charge transfer mechanism. <b>2012</b> , 243, 169-78	59
Photocatalytic Reduction of Carbon Dioxide by Water: A Step towards Sustainable Fuels and Chemicals. <b>2012</b> , 734, 1-62	i <sub>17</sub>
Enhanced photocatalytic activity of ZnO microspheres via hybridization with CuInSeland CuI nanocrystals. <b>2012</b> , 4, 4087-92	n <b>S</b> □ 57
1881 Graphene covered SiC powder as advanced photocatalytic material. <b>2012</b> , 100, 023113	61
Enhanced Charge Separation in Nanostructured TiO2 Materials for Photocatalytic and Photocatalytic Applications. <b>2012</b> , 51, 11841-11849	ovoltaic 83
Coadsorption properties of CO2 and H2O on TiO2 rutile (110): a dispersion-corrected DFT st <b>2012</b> , 137, 074704	cudy. 55
$_{f 1878}$ Mesoporous zinc germanium oxynitride for CO2 photoreduction under visible light. <b>2012,</b> 48	3 <b>,</b> 1269-71 94
1877 Photocatalytic Water Splitting and Carbon Dioxide Reduction. <b>2012</b> , 1755-1780	
1877 Photocatalytic Water Splitting and Carbon Dioxide Reduction. <b>2012</b> , 1755-1780	2
Zn2GeO4 crystal splitting toward sheaf-like, hyperbranched nanostructures and photocataly reduction of CO2 into CH4 under visible light after nitridation. <b>2012</b> , 22, 2033-2038	
Zn2GeO4 crystal splitting toward sheaf-like, hyperbranched nanostructures and photocataly	vtic .
Zn2GeO4 crystal splitting toward sheaf-like, hyperbranched nanostructures and photocataly reduction of CO2 into CH4 under visible light after nitridation. <b>2012</b> , 22, 2033-2038  Preparation and Characterization of Li-Doped ZnO Nano-Sized Powders for Photocatalytic	ytic 139
Zn2GeO4 crystal splitting toward sheaf-like, hyperbranched nanostructures and photocataly reduction of CO2 into CH4 under visible light after nitridation. <b>2012</b> , 22, 2033-2038  Preparation and Characterization of Li-Doped ZnO Nano-Sized Powders for Photocatalytic Applications. <b>2012</b> , 734, 90-116	/tic <sub>139</sub>
Zn2GeO4 crystal splitting toward sheaf-like, hyperbranched nanostructures and photocataly reduction of CO2 into CH4 under visible light after nitridation. 2012, 22, 2033-2038  Preparation and Characterization of Li-Doped ZnO Nano-Sized Powders for Photocatalytic Applications. 2012, 734, 90-116  Photocatalysis by Nanostructured TiO2-based Semiconductors. 2012, 89  An anion exchange approach to Bi2WO6 hollow microspheres with efficient visible light	/tic 139
Zn2GeO4 crystal splitting toward sheaf-like, hyperbranched nanostructures and photocataly reduction of CO2 into CH4 under visible light after nitridation. 2012, 22, 2033-2038  Preparation and Characterization of Li-Doped ZnO Nano-Sized Powders for Photocatalytic Applications. 2012, 734, 90-116  Photocatalysis by Nanostructured TiO2-based Semiconductors. 2012, 89  An anion exchange approach to Bi2WO6 hollow microspheres with efficient visible light photocatalytic reduction of CO2 to methanol. 2012, 48, 9729-31	/tic 139 1 248

1869	Artificial Photosynthesis from a Chemical Engineering Perspective. 2012,	О
1868	Recent Advances in Catalytic/Biocatalytic Conversion of Greenhouse Methane and Carbon Dioxide to Methanol and Other Oxygenates. <b>2012</b> ,	1
1867	Concurrent photoelectrochemical reduction of CO2 and oxidation of methyl orange using nitrogen-doped TiO2. <b>2012</b> , 123-124, 414-423	52
1866	Advanced nanoarchitectures for solar photocatalytic applications. <b>2012</b> , 112, 1555-614	1888
1865	The electrochemistry of nanostructured titanium dioxide electrodes. <b>2012</b> , 13, 2824-75	210
1864	Dynamics of Interfacial Charge Transfer to Formic Acid, Formaldehyde, and Methanol on the Surface of TiO2 Nanoparticles and Its Role in Methane Production. <b>2012</b> , 116, 878-885	61
1863	Heteroatom-Modulated Switching of Photocatalytic Hydrogen and Oxygen Evolution Preferences of Anatase TiO2 Microspheres. <b>2012</b> , 22, 3233-3238	114
1862	Hierarchically Structured Porous Materials for Energy Conversion and Storage. <b>2012</b> , 22, 4634-4667	697
1861	Direct growth of TiOIhanosheet arrays on carbon fibers for highly efficient photocatalytic degradation of methyl orange. <b>2012</b> , 24, 4761-4	225
1860	An Amine-Functionalized Titanium Metal®rganic Framework Photocatalyst with Visible-Light-Induced Activity for CO2 Reduction. <b>2012</b> , 124, 3420-3423	300
1859	Photocatalytic Conversion of CO2 in Water over Layered Double Hydroxides. <b>2012</b> , 124, 8132-8135	61
1858	An amine-functionalized titanium metal-organic framework photocatalyst with visible-light-induced activity for CO2 reduction. <b>2012</b> , 51, 3364-7	1100
1857	Photocatalytic conversion of CO2 in water over layered double hydroxides. <b>2012</b> , 51, 8008-11	249
1856	Synthesis of Ag@AgBr/AgCl heterostructured nanocashews with enhanced photocatalytic performance via anion exchange. <b>2012</b> , 22, 13153	84
1855	On the genesis of heterogeneous photocatalysis: a brief historical perspective in the period 1910 to the mid-1980s. <b>2012</b> , 11, 1121-50	68
1854	Novel Ag3PO4/TiO2 composites for efficient decomposition of gaseous 2-propanol under visible-light irradiation. <b>2012</b> , 17, 131-135	150
1853	Photocatalytic reduction of CO2 on FeTiO3/TiO2 photocatalyst. <b>2012</b> , 19, 85-89	94
1852	Adsorption of CO2 on heterostructure CdS(Bi2S3)/TiO2 nanotube photocatalysts and their photocatalytic activities in the reduction of CO2 to methanol under visible light irradiation. <b>2012</b> , 180, 151-158	265

### (2013-2012)

Copper and iodine co-modified TiO2 nanoparticles for improved activity of CO2 photoreduction with water vapor. <b>2012</b> , 123-124, 257-264	107
1850 Photophysical and photocatalytic properties of ANbO3 (A=Na, K) photocatalysts. <b>2012</b> , 73, 788-792	73
An overview of commonly used semiconductor nanoparticles in photocatalysis. <b>2012</b> , 46, 1-9	46
1848 Application of photo catalysis for mitigation of carbon dioxide. <b>2013</b> , 39, 2565-2602	24
1847 STM tip-assisted single molecule chemistry. <b>2013</b> , 15, 12428-41	21
1846 Recent advances in the photocatalytic CO2 reduction over semiconductors. <b>2013</b> , 3, 2481	207
Design of Advanced Photocatalytic Materials for Energy and Environmental Applications. <b>2013</b> ,  A solar cell driven electrochemical process for the concurrent reduction of carbon dioxide and	65
degradation of azo dye in dilute KHCO3 electrolyte. <b>2013</b> , 117, 3-11	18
<sup>1843</sup> recycling. <b>2013</b> , 52, 9620-33	580
1842 Innovative Photocatalysts for Solar Fuel Generation by CO2 Reduction. <b>2013</b> , 219-241	1
Current Development of Photocatalysts for Solar Energy Conversion. <b>2013</b> , 279-304	1
Metal Oxide Nanotube, Nanorod, and Quantum Dot Photocatalysis. <b>2013</b> , 213-244  Self-Ordered Titanium Dioxide Nanotube Arrays: Anodic Synthesis and Their	6
Photo/Electro-Catalytic Applications. <b>2013</b> , 6, 2892-2957	78
Mini review on photocatalysis of titanium dioxide nanoparticles and their solar applications. <b>2013</b> , 2, 1031-1045	269
Photocatalytic Conversion of Carbon Dioxide into Fuels Using Layered Double Hydroxides Coupled with Hydrogen or Water. <b>2013</b> , 589-602	1
Carbon Dioxide Capture and Activation11This chapter was prepared using literature published before April, 2011 <b>2013</b> , 475-504	1
Theoretical understanding and prediction of lithiated sodium hexatitanates. <b>2013</b> , 5, 1108-12	9
Photocatalytic Conversion of Carbon Dioxide with Water into Methane: Platinum and Copper(I) Oxide Co-catalysts with a CoreBhell Structure. <b>2013</b> , 125, 5888-5891	109

1833	Photochemical reduction of carbon dioxide to methanol and formate in a homogeneous system with pyridinium catalysts. <b>2013</b> , 135, 16252-5	128
1832	Ag nanoparticle embedded TiO(2) composite nanorod arrays fabricated by oblique angle deposition: toward plasmonic photocatalysis. <b>2013</b> , 5, 11818-27	68
1831	Status and perspectives of CO2 conversion into fuels and chemicals by catalytic, photocatalytic and electrocatalytic processes. <b>2013</b> , 6, 3112	1184
1830	Origin of photocatalytic activity in continuous gas phase CO(2) reduction over Pt/TiO(2). <b>2013</b> , 6, 2095-102	30
1829	A facile route for the synthesis of ZnS rods with excellent photocatalytic activity. <b>2013</b> , 234, 223-231	58
1828	Fabrication of self-organized TiO2 nanotube arrays for photocatalytic reduction of CO2. <b>2013</b> , 17, 2503-2510	17
1827	Visible-light photoredox catalysis: selective reduction of carbon dioxide to carbon monoxide by a nickel N-heterocyclic carbene-isoquinoline complex. <b>2013</b> , 135, 14413-24	262
1826	ZIF-8/Zn2GeO4 nanorods with an enhanced CO2 adsorption property in an aqueous medium for photocatalytic synthesis of liquid fuel. <b>2013</b> , 1, 11563	208
1825	Advances in visible light responsive titanium oxide-based photocatalysts for CO2 conversion to hydrocarbon fuels. <b>2013</b> , 76, 194-214	235
1824	Photo-conversion of CO2 using titanium dioxide: enhancements by plasmonic and co-catalytic nanoparticles. <b>2013</b> , 24, 405402	36
1823	Photocatalytic reduction of CO2 for fuel production: Possibilities and challenges. 2013, 308, 168-175	227
1822	Direct observation of charge separation on Au localized surface plasmons. <b>2013</b> , 6, 3584	63
1821	Synthesis of Bi6Mo2O15 sub-microwires via a molten salt method and enhancing the photocatalytic reduction of CO2 into solar fuel through tuning the surface oxide vacancies by simple post-heating treatment. <b>2013</b> , 15, 9855	26
1820	Interaction of CO2 with oxygen adatoms on rutile TiO2(110). <b>2013</b> , 15, 6190-5	12
1819	Dual reaction channels for photocatalytic oxidation of phenylmethanol on anatase. 2013, 15, 1082-7	10
1818	Recent advances in the photocatalytic conversion of carbon dioxide to fuels with water and/or hydrogen using solar energy and beyond. <b>2013</b> , 257, 171-186	519
1817	RETRACTED: Heterogeneous photo-enhanced conversion of carbon dioxide to formic acid with copper- and gallium-doped titania nanocomposites. <b>2013</b> , 132-133, 408-415	21
1816	Photocatalytic reduction of CO2: a brief review on product analysis and systematic methods. <b>2013</b> , 5, 1086	150

### (2013-2013)

1815	Anatase TiO2 Single Crystals Exposed with High-Reactive {111} Facets Toward Efficient H2 Evolution. <b>2013</b> , 25, 405-411	222
1814	Graphene oxide as a promising photocatalyst for CO2 to methanol conversion. <b>2013</b> , 5, 262-8	346
1813	High-active anatase TiO[hanosheets exposed with 95% {100} facets toward efficient H[evolution and CO[photoreduction. <b>2013</b> , 5, 1348-54	184
1812	Rational Design of Hybrid Nanostructures for Advanced Photocatalysis. <b>2013</b> , 3, 12-27	126
1811	Mechanisms of Reactions Induced by Photocatalysis of Titanium Dioxide Nanoparticles. 2013, 115-157	2
1810	Shape-controlled solvothermal synthesis of Bi2S3 for photocatalytic reduction of CO2 to methyl formate in methanol. <b>2013</b> , 42, 15133-8	95
1809	A novel twin reactor for CO2 photoreduction to mimic artificial photosynthesis. <b>2013</b> , 132-133, 445-451	70
1808	The new understanding on photocatalytic mechanism of visible-light response NS codoped anatase TiO2 by first-principles. <b>2013</b> , 142-143, 45-53	127
1807	Mesoporous In(OH)3 for photoreduction of CO2 into renewable hydrocarbon fuels. 2013, 280, 418-423	50
1806	Effect of photon irradiation on the adsorption of CO2 on polycrystalline Cu. <b>2013</b> , 34, 865-870	5
1805	An In Situ Simultaneous Reduction-Hydrolysis Technique for Fabrication of TiO2-Graphene 2D Sandwich-Like Hybrid Nanosheets: Graphene-Promoted Selectivity of Photocatalytic-Driven Hydrogenation and Coupling of CO2 into Methane and Ethane. <b>2013</b> , 23, 1743-1749	318
1804	Semiconductor-based nanocomposites for photocatalytic H2 production and CO2 conversion. <b>2013</b> , 15, 2632-49	309
1803	Ultrafast plasmon induced electron injection mechanism in goldIIiO2 nanoparticle system. <b>2013</b> , 15, 21-30	96
1802	Photocatalytic CO(2) reduction using non-titanium metal oxides and sulfides. <b>2013</b> , 6, 562-77	251
1801	Photocatalytic reduction of CO2 with H2O: significant enhancement of the activity of Pt-TiO2 in CH4 formation by addition of MgO. <b>2013</b> , 49, 2451-3	194
1800	A Review of Surface Plasmon Resonance-Enhanced Photocatalysis. <b>2013</b> , 23, 1612-1619	1069
1799	Effect of graphitic carbon nitride microstructures on the activity and selectivity of photocatalytic CO2 reduction under visible light. <b>2013</b> , 3, 1253	384
1798	Recent progress in artificial photosynthesis: CO2 photoreduction to valuable chemicals in a heterogeneous system. <b>2013</b> , 2, 200-206	74

1797	Photocatalytic water splitting to hydrogen production of reduced graphene oxide/SiC under visible light. <b>2013</b> , 102, 083101	41
1796	Photocatalytic conversion of carbon dioxide with water into methane: platinum and copper(I) oxide co-catalysts with a core-shell structure. <b>2013</b> , 52, 5776-9	301
1795	Solar CO2 reduction using H2O by a semiconductor/metal-complex hybrid photocatalyst: enhanced efficiency and demonstration of a wireless system using SrTiO3 photoanodes. <b>2013</b> , 6, 1274	225
1794	Theoretical insights into photoinduced charge transfer and catalysis at oxide interfaces. <b>2013</b> , 113, 4496-565	392
1793	Versatile Graphene-Promoting Photocatalytic Performance of Semiconductors: Basic Principles, Synthesis, Solar Energy Conversion, and Environmental Applications. <b>2013</b> , 23, 4996-5008	309
1792	Photocatalytic reduction of CO2 on TiO2 and other semiconductors. <b>2013</b> , 52, 7372-408	2023
1791	Design of visible-light photocatalysts by coupling of narrow bandgap semiconductors and TiO2: effect of their relative energy band positions on the photocatalytic efficiency. <b>2013</b> , 3, 1822	167
1790	New insight into the enhanced visible-light photocatalytic activities of B-, C- and B/C-doped anatase TiO2 by first-principles. <b>2013</b> , 15, 12040-7	122
1789	Copper(II) imidazolate frameworks as highly efficient photocatalysts for reduction of CO2 into methanol under visible light irradiation. <b>2013</b> , 203, 154-159	58
1788	Characterization of CO2 Behavior on Rutile TiO2 (110) Surface. <b>2013</b> , 51-66	
1787	Enhanced visible-light photocatalytic properties of Fe3+-grafted N-doped TiO2 nanoporous spheres. <b>2013</b> , 142-143, 458-464	21
1786	Leaf-architectured 3D hierarchical artificial photosynthetic system of perovskite titanates towards COIphotoreduction into hydrocarbon fuels. <b>2013</b> , 3, 1667	137
1785	Synthesis of raspberry-like SiO2-TiO2 nanoparticles toward antireflective and self-cleaning coatings. <b>2013</b> , 5, 5282-90	136
1784	Photocatalytic reduction of carbon dioxide with water vapors over montmorillonite modified TiO2 nanocomposites. <b>2013</b> , 142-143, 512-522	135
1783	Metal Doped TiO2 Photocatalysts for CO2 Photoreduction. <b>2013</b> , 757, 243-256	3
1782	Recycling of carbon dioxide to renewable fuels by photocatalysis: Prospects and challenges. <b>2013</b> , 25, 560-579	122
1781	A new heterojunction Ag3PO4/Cr-SrTiO3 photocatalyst towards efficient elimination of gaseous organic pollutants under visible light irradiation. <b>2013</b> , 134-135, 286-292	116
1780	From Melamine-Cyanuric Acid Supramolecular Aggregates to Carbon Nitride Hollow Spheres. <b>2013</b> , 23, 3661-3667	585

1779 Environmental and Societal Applications and Implications. 2013, 19, 481-516

Photochemical reduction of CO2 catalyzed by silicon nanocrystals produced by high energy ball milling. <b>2013</b> , 92, 65-67	18
Studies on photocatalytic CO(2) reduction over NH2 -Uio-66(Zr) and its derivatives: towards a better understanding of photocatalysis on metal-organic frameworks. <b>2013</b> , 19, 14279-85	442
Tuning activities of K1.9Na0.1Ta2O6DH2O nanocrystals in photocatalysis by controlling exposed facets. <b>2013</b> , 5, 10260-5	15
1775 Photocatalytic Reduction of Carbon Dioxide. <b>2013</b> , 764, 83-96	3
1774 Fabrication and characterization of graphene derived from SiC. <b>2013</b> , 56, 2386-2394	4
Recent progress in the development of bimetallic photocatalysts for hydrogen generation. <b>2013</b> , 42, 16243-54	64
Long-lived charge separated states in nanostructured semiconductor photoelectrodes for the production of solar fuels. <b>2013</b> , 42, 2281-93	260
1771 Evaluation of CO2 Absorbent/De-Absorbent by AAO/CaO Membrane. <b>2013</b> , 690-693, 1856-1859	
1770 Photocatalytic Reduction of CO2 Over Sol-Gel Derived Copper-Doped Titania Catalysts. <b>2013</b> , 124	7-1254
Gr	106
Effect of the Nature of the Metal Co-Catalyst on CO2 Photoreduction Using Fast-Grown Periodically Modulated Titanium Dioxide Nanotube Arrays (PMTiNTs). <b>2013</b> , 1578, 1	2
1767 Selectivity Control of CO2Reduction in an Inorganic Artificial Photosynthesis System. <b>2013</b> , 6, 097	102 9
Carbon Mono and Dioxide Hydrogenation over Pure and Metal Oxide Decorated Graphene Oxide Substrates: Insight from DFT. <b>2013</b> , 02, 109-114	2
1765 The Green Materials Fabrication and Advanced Molds Design. <b>2013</b> , 405-408, 2694-2698	
1764 Nanoscale dynamics by short-wavelength four wave mixing experiments. <b>2013</b> , 15, 123023	31
1763 Photokatalytische Reduktion von CO2 an TiO2 und anderen Halbleitern. <b>2013</b> , 125, 7516-7557	164
Visible-Light Photocatalytic Conversion of Carbon Monoxide to Methane by Nickel(II) Oxide. <b>2013</b> , 125, 13221-13225	9

1761	Visible-light photocatalytic conversion of carbon monoxide to methane by nickel(II) oxide. <b>2013</b> , 52, 12983-7	45
1760	Sunlight for fuel generation by way of carbon dioxide recycling. <b>2013</b> , 2, 244-255	2
1759	3.???????????????????????????????.~. <b>2014</b> , 82, 492-496	
1758	. 2014,	56
1757	. 2014,	18
1756	References. <b>2014</b> , 211-244	
1755	Photocatalytic TiO2/Carbon Nanotube Nanocomposites for Environmental Applications: An Overview and Recent Developments. <b>2014</b> , 22, 471-509	37
1754	Fuel Production from Photocatalytic Reduction of CO2 with Water Using TiO2-Based Nanocomposites. <b>2014</b> , 245-267	1
1753	Design and fabrication of semiconductor photocatalyst for photocatalytic reduction of CO2 to solar fuel. <b>2014</b> , 57, 70-100	350
1752	Effect of Ce Doping on RGO-TiO2Nanocomposite for High Photoelectrocatalytic Behavior. <b>2014</b> , 2014, 1-8	9
1751	Reduction of Carbon Dioxide: Photo-Catalytic Route to Solar Fuels. <b>2014</b> , 211-233	1
1750	Greenhouse Effect Mitigation Through Photocatalytic Technology. <b>2014</b> , 375-404	
1749	Carbon dioxide capture with the ozone-like polynitrogen molecule Li3N3. <b>2014</b> , 118, 12256-61	5
1748	Inorganic core-shell assemblies for closing the artificial photosynthetic cycle. <b>2014</b> , 176, 233-49	28
1747	Reprint of <b>P</b> hotocatalytic reduction of CO2 on MgO/TiO2 nanotube films <b>2014</b> , 319, 16-20	26
1746	Preparation and characterization of SrTiO3InTe nanocomposites for the visible-light photoconversion of carbon dioxide to methane. <b>2014</b> , 4, 48411-48418	36
1745	Photocatalytic Reduction of Carbon Dioxide over Self-Assembled Carbon Nitride and Layered Double Hydroxide: The Role of Carbon Dioxide Enrichment. <b>2014</b> , 6, 2315-2321	99
1744	Increasing the visible light absorption of graphitic carbon nitride (melon) photocatalysts by homogeneous self-modification with nitrogen vacancies. <b>2014</b> , 26, 8046-52	521

1743	Sn-Coupled p-Si Nanowire Arrays for Solar Formate Production from CO2. <b>2014</b> , 4, 1301614	66
1742	Selective photoelectrochemical reduction of aqueous COIto CO by solvated electrons. <b>2014</b> , 53, 9746-50	72
1741	Photocatalytic Reduction of CO2 to Hydrocarbons Using Carbon-Based AgBr Nanocomposites Under Visible Light. <b>2014</b> , 269-286	1
1740	Transformation of Carbon Dioxide to Useable Products through Free Radical-Induced Reactions. <b>2014</b> , 25-50	5
1739	Noble metals can have different effects on photocatalysis over metal-organic frameworks (MOFs): a case study on M/NHEMIL-125(Ti) (M=Pt and Au). <b>2014</b> , 20, 4780-8	192
1738	Mechanism of hydrogen production via water splitting on 3C-SiC目 different surfaces: A first-principles study. <b>2014</b> , 95, 451-455	13
1737	White fungus-like mesoporous Bi2S3 ball/TiO2 heterojunction with high photocatalytic efficiency in purifying 2,4-dichlorophenoxyacetic acid/Cr(VI) contaminated water. <b>2014</b> , 156-157, 25-34	70
1736	A critical review of CO2 photoconversion: Catalysts and reactors. <b>2014</b> , 224, 3-12	474
1735	Photocatalytic CO2 reduction in gasBolid regime in the presence of H2O by using GaP/TiO2 composite as photocatalyst under simulated solar light. <b>2014</b> , 53, 38-41	46
1734	Production of H2 by Ethanol Photoreforming on Au/TiO2. <b>2014</b> , 24, 241-248	87
1734 1733	Production of H2 by Ethanol Photoreforming on Au/TiO2. <b>2014</b> , 24, 241-248  Mesoporous materials for clean energy technologies. <b>2014</b> , 43, 7681-717	8 <sub>7</sub> 35 <sup>8</sup>
1733		<i></i>
1733	Mesoporous materials for clean energy technologies. <b>2014</b> , 43, 7681-717	358
1733 1732	Mesoporous materials for clean energy technologies. 2014, 43, 7681-717  Transformation and Utilization of Carbon Dioxide. 2014,  SiO2/carbon nitride composite materials: The role of surfaces for enhanced photocatalysis. 2014,	35 <sup>8</sup>
1733 1732 1731	Mesoporous materials for clean energy technologies. 2014, 43, 7681-717  Transformation and Utilization of Carbon Dioxide. 2014,  SiO2/carbon nitride composite materials: The role of surfaces for enhanced photocatalysis. 2014, 225, 185-190	358 42 51
1733 1732 1731 1730	Mesoporous materials for clean energy technologies. 2014, 43, 7681-717  Transformation and Utilization of Carbon Dioxide. 2014,  SiO2/carbon nitride composite materials: The role of surfaces for enhanced photocatalysis. 2014, 225, 185-190  Morphology®tructure diversity of ZnS nanostructures and their optical properties. 2014, 33, 1-15	358 42 51 30
1733 1732 1731 1730	Mesoporous materials for clean energy technologies. 2014, 43, 7681-717  Transformation and Utilization of Carbon Dioxide. 2014,  SiO2/carbon nitride composite materials: The role of surfaces for enhanced photocatalysis. 2014, 225, 185-190  Morphology®tructure diversity of ZnS nanostructures and their optical properties. 2014, 33, 1-15  Cu2O/reduced graphene oxide composites for the photocatalytic conversion of CO2. 2014, 7, 1086-93  Worm-like InP/TiO2 NTs heterojunction with unmatched energy band photo-enhanced	358 42 51 30 323

1725	Solar Spectrum Photocatalytic Conversion of CO2 and Water Vapor Into Hydrocarbons Using TiO2 Nanoparticle Membranes. <b>2014</b> , 289, 203-208	49
1724	Complete photocatalytic reduction of COIto methane by Hillunder solar light irradiation. <b>2014</b> , 136, 6798-801	201
1723	Preparation by Solvothermal Synthesis, Growth Mechanism, and Photocatalytic Performance of CuS Nanopowders. <b>2014</b> , 2014, 2368-2375	44
1722	Photocatalytic reduction of CO2 over a hybrid photocatalyst composed of WO3 and graphitic carbon nitride (g-C3N4) under visible light. <b>2014</b> , 6, 17-25	163
1721	Facile in situ synthesis of graphitic carbon nitride (g-C3N4)-N-TiO2 heterojunction as an efficient photocatalyst for the selective photoreduction of CO2 to CO. <b>2014</b> , 158-159, 20-29	357
1720	Hierarchical 3C-SiC nanowires as stable photocatalyst for organic dye degradation under visible light irradiation. <b>2014</b> , 179, 6-11	34
1719	Photocatalytic depolymerization of rice husk over TiO2 with H2O2. <b>2014</b> , 117, 8-16	32
1718	Research Advances in the Synthesis of Nanocarbon-Based Photocatalysts and Their Applications for Photocatalytic Conversion of Carbon Dioxide to Hydrocarbon Fuels. <b>2014</b> , 28, 22-36	99
1717	Engineering BiOX (X = Cl, Br, I) nanostructures for highly efficient photocatalytic applications. <b>2014</b> , 6, 2009-26	861
1716	Engineering the TiO2 outermost layers using magnesium for carbon dioxide photoreduction. <b>2014</b> , 150-151, 57-62	51
1715	Conversion of carbon dioxide into methanol (a) potential liquid fuel: Fundamental challenges and opportunities (a review). <b>2014</b> , 31, 221-257	373
1714	Synthesis and photoactivity of nanostructured CdSIIiO2 composite catalysts. <b>2014</b> , 225, 64-73	146
1713	Monodisperse CuS nanodisks: low-temperature solvothermal synthesis and enhanced photocatalytic activity. <b>2014</b> , 4, 59185-59193	17
1712	Silver supported on titania as an active catalyst for electrochemical carbon dioxide reduction. <b>2014</b> , 7, 866-74	155
1711	Highly efficient visible light photocatalytic reduction of CO2 to hydrocarbon fuels by Cu-nanoparticle decorated graphene oxide. <b>2014</b> , 14, 6097-103	254
1710	UV/ozone-assisted low temperature preparation of mesoporous TiO2 with tunable phase composition and enhanced solar light photocatalytic activity. <b>2014</b> , 2, 18791-18795	8
1709	Interfacial charge separation in Cu2O/RuO(x) as a visible light driven CO2 reduction catalyst. <b>2014</b> , 16, 5922-6	46
1708	A noble metal-free reduced graphene oxidetdS nanorod composite for the enhanced visible-light photocatalytic reduction of CO2 to solar fuel. <b>2014</b> , 2, 3407	433

1707	Dye-injected electron trapping in TiO2 determined by broadband transient infrared spectroscopy. <b>2014</b> , 13, 1393-6	4
1706	The photoelectric catalytic reduction of CO2 to methanol on CdSeTe NSs/TiO2 NTs. <b>2014</b> , 4, 1070-1077	38
1705	Fe-Based MOFs for Photocatalytic CO2 Reduction: Role of Coordination Unsaturated Sites and Dual Excitation Pathways. <b>2014</b> , 4, 4254-4260	549
1704	Oxidation of copper nanoparticles in water monitored in situ by localized surface plasmon resonance spectroscopy. <b>2014</b> , 4, 20659	10
1703	Photoactivation of core-shell titania coated upconversion nanoparticles and their effect on cell death. <b>2014</b> , 2, 7017-7026	65
1702	Photocatalytic CO2 reduction using a molecular cobalt complex deposited on TiO2 nanoparticles. <b>2014</b> , 50, 6221-4	48
1701	Enhanced photocatalytic COF eduction activity of electrospun mesoporous TiO hanofibers by solvothermal treatment. <b>2014</b> , 43, 9158-65	97
1700	Photoelectrochemical hydrogen production from biomass derivatives and water. <b>2014</b> , 43, 7581-93	167
1699	TiO 2 nanobelts with a uniform coating of g-C 3 N 4 as a highly effective heterostructure for enhanced photocatalytic activities. <b>2014</b> , 220, 54-59	55
1698	Enhanced photocatalytic performance at a Au/N-TiOIhollow nanowire array by a combination of light scattering and reduced recombination. <b>2014</b> , 16, 17748-55	22
1697	The pH-depending enhancement of electron transfer by {001} facet-dominating TiO2 nanoparticles for photocatalytic H2 evolution under visible irradiation. <b>2014</b> , 4, 871	9
1696	Gold-copper nanoalloys supported on TiO2 as photocatalysts for CO2 reduction by water. <b>2014</b> , 136, 15969-76	430
1695	Photocatalysts of 3D Ordered Macroporous TiO2-Supported CeO2 Nanolayers: Design, Preparation, and Their Catalytic Performances for the Reduction of CO2 with H2O under Simulated Solar Irradiation. <b>2014</b> , 53, 17345-17354	82
1694	CO2 Capture by TiO2 Anatase Surfaces: A Combined DFT and FTIR Study. <b>2014</b> , 118, 25016-25026	152
1693	Visible-light CO2 photocatalytic reduction performance of ball-flower-like Bi2WO6 synthesized without organic precursor: Effect of post-calcination and water vapor. <b>2014</b> , 315, 360-367	67
1692	The roles of surface structure, oxygen defects, and hydration in the adsorption of CO(2) on low-index ZnGa(2)O(4) surfaces: a first-principles investigation. <b>2014</b> , 16, 7538-47	16
1691	Plasmon-enhanced water splitting on TiO2-passivated GaP photocatalysts. <b>2014</b> , 16, 3115-21	46
1690	Enhanced ethylene photodegradation performance of g-C3N4-Ag3PO4 composites with direct Z-scheme configuration. <b>2014</b> , 20, 17590-6	81

1689	Significant enhancement in photocatalytic activity of high quality SiC/graphene coreIhell heterojunction with optimal structural parameters. <b>2014</b> , 4, 46771-46779	24
1688	Photocatalytic reduction of CO2 to CO utilizing a stable and efficient heteroflomogeneous hybrid system. <b>2014</b> , 4, 44991-44995	33
1687	Synthesis and Activity of Plasmonic Photocatalysts. <b>2014</b> , 6, 2456-2476	84
1686	Selective Photoelectrochemical Reduction of Aqueous CO2 to CO by Solvated Electrons. <b>2014</b> , 126, 9904-990	<b>8</b> 16
1685	Improved photoelectrochemical water oxidation using wurtzite ZnO semiconductors synthesized through simple chemical bath reaction. <b>2014</b> , 141, 294-301	19
1684	One-dimensional titanium dioxide nanomaterials: nanotubes. <b>2014</b> , 114, 9385-454	885
1683	Large-scale synthesis of TiO2 microspheres with hierarchical nanostructure for highly efficient photodriven reduction of CO2 to CH4. <b>2014</b> , 6, 15488-98	126
1682	Photocatalytic reduction of CO2 into hydrocarbon solar fuels over g-C3N4-Pt nanocomposite photocatalysts. <b>2014</b> , 16, 11492-501	376
1681	Anodic CuB and CuS nanorod and nanowall arrays: preparation, properties and application in COII photoreduction. <b>2014</b> , 6, 14305-18	107
1680	Polymeric g-C3N4 Coupled with NaNbO3 Nanowires toward Enhanced Photocatalytic Reduction of CO2 into Renewable Fuel. <b>2014</b> , 4, 3637-3643	490
1679	CO2 Reduction to Methanol on TiO2-Passivated GaP Photocatalysts. <b>2014</b> , 4, 3512-3516	96
1678	Efficient CO2 capture and photoreduction by amine-functionalized TiO2. <b>2014</b> , 20, 10220-2	77
1677	Semiconductor-redox catalysis promoted by metal-organic frameworks for CO2 reduction. <b>2014</b> , 16, 14656-60	235
1676	Enhanced photocatalytic H2 evolution over micro-SiC by coupling with CdS under visible light irradiation. <b>2014</b> , 2, 6296-6300	63
1675	New hydrogen-evolution heteronanostructured photocatalysts: Pt-Nb3 O7 (OH) and Cu-Nb3 O7 (OH). <b>2014</b> , 7, 2104-9	17
1674	Integration of an inorganic semiconductor with a metal-organic framework: a platform for enhanced gaseous photocatalytic reactions. <b>2014</b> , 26, 4783-8	310
1673	Photocatalytic generation of solar fuels from the reduction of H2O and CO2: a look at the patent literature. <b>2014</b> , 16, 19790-827	86
1672	Fe2WO6/TiO2, an efficient visible-light photocatalyst driven by hole-transport mechanism. <b>2014</b> , 56, 55-59	16

1671	Photocatalytic reduction of CO2 on MgO/TiO2 nanotube films. <b>2014</b> , 314, 458-463	77
1670	Binuclear ZrOCo Metal-to-Metal Charge-Transfer Unit in Mesoporous Silica for Light-Driven CO2 Reduction to CO and Formate. <b>2014</b> , 118, 7874-7885	37
1669	Titanium dioxide-based nanomaterials for photocatalytic fuel generations. <b>2014</b> , 114, 9987-10043	1794
1668	Enabling silicon for solar-fuel production. <b>2014,</b> 114, 8662-719	274
1667	RETRACTED: Photocatalytic CO2 transformation into fuel: A review on advances in photocatalyst and photoreactor. <b>2014</b> , 39, 765-805	99
1666	The Biophysics of Photosynthesis. 2014,	9
1665	MgO- and Pt-Promoted TiO2 as an Efficient Photocatalyst for the Preferential Reduction of Carbon Dioxide in the Presence of Water. <b>2014</b> , 4, 3644-3653	293
1664	A review on advances in photocatalysts towards CO2 conversion. <b>2014</b> , 4, 20856	123
1663	Facile synthesis of Zn2GeO4 nanorods toward improved photocatalytic reduction of CO2 into renewable hydrocarbon fuel. <b>2014</b> , 21, 2837-2842	8
1662	Switching the selectivity of the photoreduction reaction of carbon dioxide by controlling the band structure of a g-C3N4 photocatalyst. <b>2014</b> , 50, 10837-40	165
1661	Controlled synthesis of cobalt telluride superstructures for the visible light photo-conversion of carbon dioxide into methane. <b>2014</b> , 487, 202-209	43
1660	Light induced carbon dioxide reduction by water at binuclear ZrOCo(II) unit coupled to Ir oxide nanocluster catalyst. <b>2014</b> , 136, 11034-42	67
1659	Understanding TiO2 photocatalysis: mechanisms and materials. <b>2014</b> , 114, 9919-86	3646
1658	Photocatalytic reduction of carbon dioxide to methanol and formic acid by graphene-TiO2. <b>2014</b> , 64, 578-85	32
1657	Single-crystalline, ultrathin ZnGa(2)O(4) nanosheet scaffolds to promote photocatalytic activity in CO(2) reduction into methane. <b>2014</b> , 6, 2356-61	131
1656	Effective visible-light driven CO2 photoreduction via a promising bifunctional iridium coordination polymer. <b>2014</b> , 5, 3808	108
1655	Photocatalytic conversion of CO(2) into renewable hydrocarbon fuels: state-of-the-art accomplishment, challenges, and prospects. <b>2014</b> , 26, 4607-26	1043
1654	Thermodynamics and high-pressure kinetics of a fast carbon dioxide fixation reaction by a (2,6-pyridinedicarboxamidato-hydroxo)nickel(II) complex. <b>2014</b> , 43, 5274-9	11

1653	Plasmonic enhancement of CO2 conversion to methane using sculptured copper thin films grown directly on TiO2. <b>2014</b> , 565, 105-110	12
1652	Surface plasmon-driven water reduction: gold nanoparticle size matters. <b>2014</b> , 136, 9842-5	259
1651	Origin of Catalytic Effect in the Reduction of CO2 at Nanostructured TiO2 Films. <b>2014</b> , 4, 3249-3254	98
1650	Bismuth Oxybromide with Reasonable Photocatalytic Reduction Activity under Visible Light. <b>2014</b> , 4, 954-961	258
1649	Energetics of CO2 and H2O adsorption on zinc oxide. <b>2014</b> , 30, 9091-7	39
1648	Fabrication of unique ribbon-like porous LaFeO3 nanofibers photocatalyst via electrospinning. <b>2014</b> , 117, 1381-1386	10
1647	Reduction of CO2 by adsorption and reaction on surface of TiO2-nitrogen modified photocatalyst. <b>2014</b> , 5, 47-52	61
1646	Electronic and structural properties of highly aluminum ion doped TiO(2) nanoparticles: a combined experimental and theoretical study. <b>2014</b> , 15, 2267-80	24
1645	Photocatalytic reduction of CO2 over exposed-crystal-face-controlled TiO2 nanorod having a brookite phase with co-catalyst loading. <b>2014</b> , 152-153, 309-316	71
1644	Photocatalytic conversion of CO2 to hydrocarbons by light-harvesting complex assisted Rh-doped TiO2 photocatalyst. <b>2014</b> , 5, 33-40	46
1643	The photosynthesis of methanol on 1D ordered Zn:CuInS2 nanoarrays. <b>2014</b> , 45, 1509-1515	8
1642	Green synthesis of methanol by photocatalytic reduction of CO2 under visible light using a graphene and tourmaline co-doped titania nanocomposites. <b>2014</b> , 40, 12431-12438	31
1641	Titanium dioxide nanomaterials: self-structural modifications. <b>2014</b> , 114, 9890-918	391
1640	Photocatalytic Hydrogen Generation from Pure Water using Silicon Carbide Nanoparticles. <b>2014</b> , 2, 183-187	24
1639	Strategies to design efficient silica-supported photocatalysts for reduction of COII2014, 136, 594-7	54
1638	Photochemical Reduction of CO2 by Graphitic Carbon Nitride Polymers. <b>2014</b> , 2, 353-358	312
1637	Turning lipophilic phthalocyanines/TiO2 composites into efficient photocatalysts for the conversion of CO2 into formic acid under UVII is light irradiation. <b>2014</b> , 481, 169-172	36
1636	Use of carbon dioxide as feedstock for chemicals and fuels: homogeneous and heterogeneous catalysis. <b>2014</b> , 89, 334-353	153

1635	A versatile photoanode-driven photoelectrochemical system for conversion of CO2 to fuels with high faradaic efficiencies at low bias potentials. <b>2014</b> , 2, 2044	74
1634	Photocatalytic degradation of ethyl violet dye mediated by TiO2 under an anaerobic condition. <b>2014</b> , 45, 2469-2479	23
1633	CO2 to Fuels. <b>2014</b> , 93-122	
1632	5.???????????????????. <b>2014</b> , 82, 502-506	1
1631	Water bath synthesis and enhanced photocatalytic performances of urchin-like micro/nanostructured FeOOH. <b>2015</b> , 30, 1629-1638	10
1630	Photoelectrochemical reduction of carbon dioxide using Ge doped GaN nanowire photoanodes. <b>2015</b> , 3, 116106	9
1629	Photokatalysatoren auf Graphenbasis fildie Produktion von Solarbrennstoffen. <b>2015</b> , 127, 11508-11524	42
1628	Enhanced Photocatalytic Reduction of CO2 to CO through TiO2 Passivation of InP in Ionic Liquids. <b>2015</b> , 21, 13502-7	41
1627	Bipolar Carrier Transfer Channels in Epitaxial Graphene/SiC Core-Shell Heterojunction for Efficient Photocatalytic Hydrogen Evolution. <b>2015</b> , 27, 7986-91	36
1626	Molecular Catalyst Immobilized Photocathodes for Water/Proton and Carbon Dioxide Reduction. <b>2015</b> , 8, 3746-59	63
1625	An Amorphous Carbon Nitride Photocatalyst with Greatly Extended Visible-Light-Responsive Range for Photocatalytic Hydrogen Generation. <b>2015</b> , 27, 4572-7	599
1624	A Hierarchical Z-Scheme CdS-WO3 Photocatalyst with Enhanced CO2 Reduction Activity. <b>2015</b> , 11, 5262-71	578
1623	Graphene-Based Photocatalysts for Solar-Fuel Generation. <b>2015</b> , 54, 11350-66	604
1622	Photochemical Reduction of Carbon Dioxide to Formic Acid using Ruthenium(II)-Based Catalysts and Visible Light. <b>2015</b> , 7, 3316-3321	23
1621	One-step synthesis of amorphous silver silicates with tunable light absorption spectra and photocatalytic activities in the visible region. <b>2015</b> , 21, 8706-10	14
1620	Active Sites for Adsorption and Reaction of Molecules on Rutile TiO2(110) and Anatase TiO2(001) Surfaces <b>2015</b> , 28, 383-395	9
1619	Photoreduction of carbon dioxide to formic acid in aqueous suspension: a comparison between phthalocyanine/TiO2 and porphyrin/TiO2 catalysed processes. <b>2014</b> , 20, 396-415	41
1618	Amine-Functionalized ZnO Nanosheets for Efficient COlCapture and Photoreduction. <b>2015</b> , 20, 18847-55	36

1617	Visible-light-active oxygen-rich TiO2 decorated 2D graphene oxide with enhanced photocatalytic activity toward carbon dioxide reduction. <b>2015</b> , 179, 160-170	127
1616	A monolithic device for CO2 photoreduction to generate liquid organic substances in a single-compartment reactor. <b>2015</b> , 8, 1998-2002	126
1615	Synthesis of black ultrathin BiOCl nanosheets for efficient photocatalytic H2 production under visible light irradiation. <b>2015</b> , 293, 409-415	104
1614	Nanoporous materials as new engineered catalysts for the synthesis of green fuels. <b>2015</b> , 20, 5638-66	64
1613	Photoelectrocatalytic Reduction of Carbon Dioxide. <b>2015</b> , 211-233	4
1612	Quantum Dots for Visible-Light Photocatalytic CO2 Reduction. <b>2015</b> , 269-295	1
1611	From Molecules to Materials. <b>2015</b> ,	7
1610	Fabrication of inverse opal TiO2-supported Au@CdS coreEhell nanoparticles for efficient photocatalytic CO2 conversion. <b>2015</b> , 179, 422-432	100
1609	Synthetic strategies to nanostructured photocatalysts for CO2 reduction to solar fuels and chemicals. <b>2015</b> , 3, 14487-14516	138
1608	CO2 Capture and Conversion on Rutile TiO2(110) in the Water Environment: Insight by First-Principles Calculations. <b>2015</b> , 6, 2538-45	49
1607	Charge Transport through Organic Molecular Wires Embedded in Ultrathin Insulating Inorganic Layer. <b>2015</b> , 119, 28326-28334	17
1606	Nitrogen-doped TiO2 microsheets with enhanced visible light photocatalytic activity for CO2 reduction. <b>2015</b> , 36, 2127-2134	172
1605	Octahedral Cu2O-modified TiO2 nanotube arrays for efficient photocatalytic reduction of CO2. <b>2015</b> , 36, 2229-2236	86
1604	Calcium titanate photocatalyst prepared by a flux method for reduction of carbon dioxide with water. <b>2015</b> , 251, 132-139	76
1603	Low-Temperature CO2 Hydrogenation to Liquid Products via a Heterogeneous Cascade Catalytic System. <b>2015</b> , 5, 1717-1725	68
1602	Development of a stable MnCo2O4 cocatalyst for photocatalytic CO2 reduction with visible light. <b>2015</b> , 7, 4327-35	212
1601	Deciphering visible light photoreductive conversion of CO2 to formic acid and methanol using waste prepared material. <b>2015</b> , 49, 2405-17	27
1600	Toward Solar-Driven Photocatalytic CO2 Reduction Using Water as an Electron Donor. <b>2015</b> , 54, 5105-13	100

## (2015-2015)

1599	Photocatalytic CO2 reduction with H2 as reductant over copper and indium co-doped TiO2 nanocatalysts in a monolith photoreactor. <b>2015</b> , 493, 90-102	65
1598	Photocatalytic reduction of CO2 with H2O using perovskite CaxTiyO3. <b>2015</b> , 337, 138-144	54
1597	Solar fuels vis-⊕vis electricity generation from sunlight: The current state-of-the-art (a review). <b>2015</b> , 44, 904-932	45
1596	SrNb2O6 nanoplates as efficient photocatalysts for the preferential reduction of CO2 in the presence of H2O. <b>2015</b> , 51, 3430-3	37
1595	Methane formation from photoreduction of CO2 with water using TiO2 including Ni ingredient. <b>2015</b> , 143, 570-576	38
1594	Nanostructured TiO2/KIT-6 catalysts for improved photocatalytic reduction of CO2 to tunable energy products. <b>2015</b> , 170-171, 53-65	36
1593	Photocatalytic carbon dioxide reduction by copper oxide nanocluster-grafted niobate nanosheets. <b>2015</b> , 9, 2111-9	151
1592	Recent development in catalytic technologies for methanol synthesis from renewable sources: A critical review. <b>2015</b> , 44, 508-518	139
1591	Environment, Energy and Climate Change I. <b>2015</b> ,	7
1590	Switching Photocatalytic H2 and O2 Generation Preferences of Rutile TiO2 Microspheres with Dominant Reactive Facets by Boron Doping. <b>2015</b> , 119, 84-89	16
1589	Surface engineered CuO nanowires with ZnO islands for CO2 photoreduction. <b>2015</b> , 7, 5685-92	84
1588	Inverting Transient Absorption Data to Determine Transfer Rates in Quantum DotIIiO2 Heterostructures. <b>2015</b> , 119, 6337-6343	13
1587	Polymeric photocatalysts based on graphitic carbon nitride. <b>2015</b> , 27, 2150-76	2367
1586	Performance analysis of monolith photoreactor for CO2 reduction with H2. <b>2015</b> , 90, 272-281	49
1585	Crucial role of sustainable liquid junction potential for solar-to-carbon monoxide conversion by a photovoltaic photoelectrochemical system. <b>2015</b> , 5, 54246-54252	26
1584	Achievements and Trends in Photoelectrocatalysis: from Environmental to Energy Applications. <b>2015</b> , 6, 415-441	143
1583	Product selectivity of visible-light photocatalytic reduction of carbon dioxide using titanium dioxide doped by different nitrogen-sources. <b>2015</b> , 355, 45-51	44
1582	Enhanced CO2 photoreduction under electrostatic field induction. <b>2015</b> , 143, 275-279	2

1581	Wafer-Level Artificial Photosynthesis for CO2 Reduction into CH4 and CO Using GaN Nanowires. <b>2015</b> , 5, 5342-5348	127
1580	Au@TiOlyolk-shell hollow spheres for plasmon-induced photocatalytic reduction of COlto solar fuel via a local electromagnetic field. <b>2015</b> , 7, 14232-6	127
1579	Carbon Capture and Storage. <b>2015</b> ,	5
1578	Preparation of recyclable CdS photocatalytic and superhydrophobic films with photostability by using a screen-printing technique. <b>2015</b> , 3, 16934-16940	38
1577	Visible light-driven metal-oxide photocatalytic CO2 conversion. <b>2015</b> , 39, 1142-1152	23
1576	Current Challenges of CO2 Photocatalytic Reduction Over Semiconductors Using Sunlight. <b>2015</b> , 171-191	3
1575	Carbon dioxide photoconversion driven by visible-light excitation of small carbon nanoparticles in various configurations. <b>2015</b> , 634, 122-128	16
1574	Probing Ultrafast Photoinduced Electron Transfer to TiO2 from CdS Nanocrystals of Varying Crystallographic Phase Content. <b>2015</b> , 119, 17466-17473	9
1573	CO2 photoreduction with water: Catalyst and process investigation. <b>2015</b> , 12, 86-94	31
1572	Photocatalytic reduction of CO2 coupled with selective alcohol oxidation under ambient conditions. <b>2015</b> , 5, 4800-4805	18
1571	Carbon dioxide-enhanced photosynthesis of methane and hydrogen from carbon dioxide and water over Pt-promoted polyaniline-TiO2 nanocomposites. <b>2015</b> , 51, 13654-7	27
1570	The Carbon Dioxide Molecule and the Effects of Its Interaction with Electrophiles and Nucleophiles. <b>2015</b> , 1-38	9
1569	Photocatalytic reduction of CO2 using molybdenum-doped titanate nanotubes in a MEA solution. <b>2015</b> , 5, 63142-63151	12
1568	Synthesis and characterization of a quaternary nanocomposite based on TiO2/CdS/rGO/Pt and its application in the photoreduction of CO2 to methane under visible light. <b>2015</b> , 5, 33914-33922	38
1567	Carbon Reuses for a Sustainable Future. <b>2015</b> , 195-216	
1566	CdS/Graphene Nanocomposite Photocatalysts. <b>2015</b> , 5, 1500010	584
1565	Octahedral rhenium K4[Re6S8(CN)6] and Cu(OH)2 cluster modified TiO2 for the photoreduction of CO2 under visible light irradiation. <b>2015</b> , 499, 32-38	19
1564	Fabrication and characterization of a p-type Cu3Nb2O8 photocathode toward photoelectrochemical reduction of carbon dioxide. <b>2015</b> , 174-175, 471-476	37

## (2015-2015)

1563	Ultrasonic-assisted facile synthesis of plasmonic Ag@AgCl cuboids with high visible light photocatalytic performance for Rhodamine B degradation. <b>2015</b> , 115, 773-786	9
1562	B-doped 3C-SiC nanowires with a finned microstructure for efficient visible light-driven photocatalytic hydrogen production. <b>2015</b> , 7, 8955-61	62
1561	Photo-enhanced hydrogenation of CO2 to mimic photosynthesis by CO co-feed in a novel twin reactor. <b>2015</b> , 147, 318-324	45
1560	Heterostructured nanocomposite tin phthalocyanine@mesoporous ceria (SnPc@CeO2) for photoreduction of CO2 in visible light. <b>2015</b> , 5, 42414-42421	25
1559	Carbon cycle in advanced coal chemical engineering. <b>2015</b> , 44, 5409-45	100
1558	Arrays of templated TiO2 nanofibres as improved photoanodes for water splitting under visible light. <b>2015</b> , 26, 165402	12
1557	Effect of Gold Nanoclusters on the Production of Ti3+ Defect Sites in Titanium Dioxide Nanoparticles under Ultraviolet and Soft X-ray Radiation. <b>2015</b> , 119, 11171-11177	13
1556	Photocatalytic reduction of CO2 by graphitic carbon nitride polymers derived from urea and barbituric acid. <b>2015</b> , 179, 1-8	287
1555	Surface charge modification via protonation of graphitic carbon nitride (g-C3N4) for electrostatic self-assembly construction of 2D/2D reduced graphene oxide (rGO)/g-C3N4 nanostructures toward enhanced photocatalytic reduction of carbon dioxide to methane. <b>2015</b> , 13, 757-770	577
1554	Synthesis of 3D ordered macroporous TiO2-supported Au nanoparticle photocatalysts and their photocatalytic performances for the reduction of CO2 to methane. <b>2015</b> , 258, 319-326	61
1553	Incorporation of Ag nanowires in CuWO4 for improved visible light-induced photoanode performance. <b>2015</b> , 3, 9638-9644	46
1552	Cubic anatase TiO2 nanocrystals with enhanced photocatalytic CO2 reduction activity. <b>2015</b> , 51, 7950-3	175
1551	Amine-Functionalized Titanate Nanosheet-Assembled Yolk@Shell Microspheres for Efficient Cocatalyst-Free Visible-Light Photocatalytic CO2 Reduction. <b>2015</b> , 7, 8166-75	114
1550	Photocatalytic conversion of CO2 into value-added and renewable fuels. <b>2015</b> , 342, 154-167	309
1549	Enhanced Photoreduction CO[Activity over Direct Z-Scheme FeD]CuD Heterostructures under Visible Light Irradiation. <b>2015</b> , 7, 8631-9	273
1548	Preparation of 2D hydroxyl-rich carbon nitride nanosheets for photocatalytic reduction of CO2. <b>2015</b> , 5, 33254-33261	87
1547	3D ordered macroporous TiO2-supported Pt@CdS coreBhell nanoparticles: design, synthesis and efficient photocatalytic conversion of CO2 with water to methane. <b>2015</b> , 3, 11074-11085	117
1546	Recent Advances (2012 <b>0</b> 015) in the Photocatalytic Conversion of Carbon Dioxide to Fuels Using Solar Energy: Feasibilty for a New Energy. <b>2015</b> , 1-46	13

1545 Conversion of CO2 into renewable fuel over Ptg-C3N4/KNbO3 composite photocatalyst. 2015, 5, 93615-9362279

1544	Photocatalytic Reduction of Carbon Dioxide. <b>2015</b> , 61-98	1
1543	Photocatalytic reduction of CO2 using metal complexes. <b>2015</b> , 25, 106-137	326
1542	Photocatalysis with TiO2 Applied to Organic Synthesis. <b>2015</b> , 68, 1621	44
1541	Photocatalytic reduction of CO2 into methanol and ethanol over conducting polymers modified Bi2WO6 microspheres under visible light. <b>2015</b> , 356, 173-180	90
1540	Artificial Photosynthesis on TiO2-Passivated InP Nanopillars. <b>2015</b> , 15, 6177-81	67
1539	Application of Diverse Hydrogen Sources to Methanol Synthesis from CO2. <b>2015</b> , 109-122	2
1538	Visible-Light Photoreduction of CO2 in a Metal-Organic Framework: Boosting Electron-Hole Separation via Electron Trap States. <b>2015</b> , 137, 13440-3	710
1537	Light-Driven Heterogeneous Reduction of Carbon Dioxide: Photocatalysts and Photoelectrodes. <b>2015</b> , 115, 12888-935	1097
1536	Fabrication of Gold/Titania Photocatalyst for CO2 Reduction Based on Pyrolytic Conversion of the Metal <b>©</b> rganic Framework NH2-MIL-125(Ti) Loaded with Gold Nanoparticles. <b>2015</b> , 27, 7248-7257	119
1535	Heteroatom doped graphene in photocatalysis: A review. <b>2015</b> , 358, 2-14	239
1534	Photoreduction of carbon dioxide using strontium zirconate nanoparticles. <b>2015</b> , 58, 634-639	10
1533	Enhanced photocatalytic activity of g-C3N4 for selective CO2 reduction to CH3OH via facile coupling of ZnO: a direct Z-scheme mechanism. <b>2015</b> , 3, 19936-19947	670
1532	Synthesis of a Bi2S3/CeO2 nanocatalyst and its visible light-driven conversion of CO2 into CH3OH and CH4. <b>2015</b> , 5, 5208-5215	47
1531	A novel Ru/TiO2 hybrid nanocomposite catalyzed photoreduction of CO2 to methanol under visible light. <b>2015</b> , 7, 15258-67	45
1530	Efficient photocatalytic reduction of CO2 by amine-functionalized g-C3N4. <b>2015</b> , 358, 350-355	184
1529	A solgel derived, copper-doped, titanium dioxideleduced graphene oxide nanocomposite electrode for the photoelectrocatalytic reduction of CO2 to methanol and formic acid. <b>2015</b> , 5, 77803-77813	37
1528	Selective CO production by Au coupled ZnTe/ZnO in the photoelectrochemical CO2 reduction system. <b>2015</b> , 8, 3597-3604	122

1527	Conversion. <b>2015</b> , 185, 117-124	39
1526	Visible light driven reduction of carbon dioxide with water on modified Sr3Ti2O7 catalysts. <b>2015</b> , 5, 5958-5960	615
1525	Visible light induced photocatalytic overall water splitting over micro-SiC driven by the Z-scheme system. <b>2015</b> , 61, 53-56	13
1524	Ga doped RGOIIiO2 composite on an ITO surface electrode for investigation of photoelectrocatalytic activity under visible light irradiation. <b>2015</b> , 39, 369-376	34
1523	High-efficiency conversion of CO2 to fuel over ZnO/g-C3N4 photocatalyst. <b>2015</b> , 168-169, 1-8	91
1522	Photocatalytic reduction of CO2 with water vapor on surface La-modified TiO2 nanoparticles with enhanced CH4 selectivity. <b>2015</b> , 168-169, 125-131	77
1521	Fate of methanol under one-pot artificial photosynthesis condition with metal-loaded TiO2 as photocatalysts. <b>2015</b> , 243, 235-250	9
<b>152</b> 0	New application of Z-scheme Ag3PO4/g-C3N4 composite in converting CO2 to fuel. <b>2015</b> , 49, 649-56	694
1519	A stable ZnCo2O4 cocatalyst for photocatalytic CO2 reduction. <b>2015</b> , 51, 1517-9	145
1518	Tailoring the assembly, interfaces, and porosity of nanostructures toward enhanced catalytic activity. <b>2015</b> , 51, 624-35	35
1517	Photoelectrochemical reduction of CO2 on Cu/Cu2O films: Product distribution and pH effects. <b>2015</b> , 264, 302-309	87
1516	In situ synthesis of ZnO/ZnTe common cation heterostructure and its visible-light photocatalytic reduction of CO2 into CH4. <b>2015</b> , 166-167, 345-352	88
1515	Graphene oxide as a structure-directing agent for the two-dimensional interface engineering of sandwich-like graphene-g-C3N4 hybrid nanostructures with enhanced visible-light photoreduction of CO2 to methane. <b>2015</b> , 51, 858-61	328
1514	Photocatalytic conversion of CO2 into value-added hydrocarbon (methanol) with high selectivity over ZnS nanoparticles driven by 355-nm pulsed laser. <b>2015</b> , 41, 739-747	16
1513	Heterojunction engineering of graphitic carbon nitride (g-C3N4) via Pt loading with improved daylight-induced photocatalytic reduction of carbon dioxide to methane. <b>2015</b> , 44, 1249-57	262
1512	A novel visible light-driven Ag3PO4/SBA-15 nanocomposite: Preparation and application in the photo-degradation of pollutants. <b>2015</b> , 324, 212-220	26
1511	Bismuth-rich strategy induced photocatalytic molecular oxygen activation properties of bismuth oxyhalogen: The case of Bi24O31Cl10. <b>2015</b> , 165, 668-675	137
1510	Artificial photosynthesis on tree trunk derived alkaline tantalates with hierarchical anatomy: towards CO2 photo-fixation into CO and CH4. <b>2015</b> , 7, 113-20	52

1509	Efficient photocatalytic reduction of CO2 into liquid products over cerium doped titania nanoparticles synthesized by a solgel auto-ignited method. <b>2015</b> , 135, 6-13	48
1508	Semiconductor-based photocatalysts and photoelectrochemical cells for solar fuel generation: a review. <b>2015</b> , 5, 1360-1384	673
1507	Highly-dispersed boron-doped graphene nanosheets loaded with TiO2 nanoparticles for enhancing CO2 photoreduction. <b>2014</b> , 4, 6341	126
1506	Indium-doped TiO 2 nanoparticles for photocatalytic CO 2 reduction with H 2 O vapors to CH 4. <b>2015</b> , 162, 98-109	222
1505	Photocatalytic conversion of CO2 in water over Ag-modified La2Ti2O7. <b>2015</b> , 163, 241-247	102
1504	A general framework for the assessment of solar fuel technologies. <b>2015</b> , 8, 126-157	242
1503	Effect of Au surface plasmon nanoparticles on the selective CO2 photoreduction to CH4. <b>2015</b> , 178, 177-185	80
1502	Photocatalytic reduction of COIvith SiC recovered from silicon sludge wastes. <b>2015</b> , 36, 2987-90	19
1501	Selective photocatalytic reduction of CO2 to methanol in CuO-loaded NaTaO3 nanocubes in isopropanol. <b>2016</b> , 7, 776-83	28
1500	Controlled Photocatalytic Synthesis of Core-Shell SiC/Polyaniline Hybrid Nanostructures. <b>2016</b> , 9,	15
1499	Typical NonIIiO2-Based Visible-Light Photocatalysts. <b>2016</b> ,	3
1499 1498	Typical NonTiO2-Based Visible-Light Photocatalysts. 2016,  Nanostructured p-Type Semiconductor Electrodes and Photoelectrochemistry of Their Reduction Processes. 2016, 9, 373	3 41
1498	Nanostructured p-Type Semiconductor Electrodes and Photoelectrochemistry of Their Reduction	
1498 1497	Nanostructured p-Type Semiconductor Electrodes and Photoelectrochemistry of Their Reduction Processes. <b>2016</b> , 9, 373	41
1498 1497	Nanostructured p-Type Semiconductor Electrodes and Photoelectrochemistry of Their Reduction Processes. 2016, 9, 373  . 2016,	8
1498 1497 1496	Nanostructured p-Type Semiconductor Electrodes and Photoelectrochemistry of Their Reduction Processes. 2016, 9, 373  . 2016,  Nitrogen-Doped Graphene for Photocatalytic Hydrogen Generation. 2016, 11, 1125-37	41 8 49
1498 1497 1496 1495	Nanostructured p-Type Semiconductor Electrodes and Photoelectrochemistry of Their Reduction Processes. 2016, 9, 373  .2016,  Nitrogen-Doped Graphene for Photocatalytic Hydrogen Generation. 2016, 11, 1125-37  Model-Based Optimization of a Photocatalytic Reactor with Light-Emitting Diodes. 2016, 39, 1946-1954	41 8 49 9

## (2016-2016)

1491	Plasmon-induced water Splitting Using Metallic-Nanoparticle-Loaded Photocatalysts and Photoelectrodes. <b>2016</b> , 17, 199-215	44
1490	Composite Nanostructures of TiO2 and ZnO for Water Splitting Application: Atomic Layer Deposition Growth and Density Functional Theory Investigation. <b>2016</b> , 26, 4882-4889	38
1489	Imidazolium Ionic Liquids, Imidazolylidene Heterocyclic Carbenes, and Zeolitic Imidazolate Frameworks for CO2 Capture and Photochemical Reduction. <b>2016</b> , 55, 2308-20	309
1488	Photocatalytic Reduction of CO2 over Heterostructure Semiconductors into Value-Added Chemicals. <b>2016</b> , 16, 1918-33	43
1487	A Monolithically Integrated Gallium Nitride Nanowire/Silicon Solar Cell Photocathode for Selective Carbon Dioxide Reduction to Methane. <b>2016</b> , 22, 8809-13	38
1486	Imidazolatsysteme zur CO2-Abscheidung und photochemischen Reduktion. <b>2016</b> , 128, 2352-2364	46
1485	The Effect of Excess Electron and hole on CO2 Adsorption and Activation on Rutile (110) surface. <b>2016</b> , 6, 23298	29
1484	Composite photocatalyst CdIn2S4-In(OH)3 reducing carbon dioxide to methyl formate. 2016,	
1483	A perspective on perovskite oxide semiconductor catalysts for gas phase photoreduction of carbon dioxide. <b>2016</b> , 6, 216-225	14
1482	Heterogene molekulare Systeme fileine photokatalytische CO2-Reduktion mit Wasseroxidation. <b>2016</b> , 128, 15146-15174	33
1481	Ru(II) Polypyridyl Complexes-Sensitized TiO2Nanotubes for Photoreduction of CO2Aqueous Solution. <b>2016</b> , 11, 1650134	2
1480	Photoelectrochemical CO2 reduction by a p-type boron-doped g-C3N4 electrode under visible light. <b>2016</b> , 192, 193-198	221
1479	Nitrogen-doped titanium dioxide: An overview of material design and dimensionality effect over modern applications. <b>2016</b> , 27, 1-29	69
1478	Solar Fuels from CO2 Photoreduction over Nano-Structured Catalysts. <b>2016</b> , 855, 1-19	4
1477	Electro- and Photoreduction of Carbon Dioxide: The Twain Shall Meet at Copper Oxide/Copper Interfaces. <b>2016</b> , 1, 332-338	74
1476	Open framework metal chalcogenides as efficient photocatalysts for reduction of CO2 into renewable hydrocarbon fuel. <b>2016</b> , 8, 10913-6	37
1475	Graphitic Carbon Nitride (g-C3N4)-Based Photocatalysts for Artificial Photosynthesis and Environmental Remediation: Are We a Step Closer To Achieving Sustainability?. <b>2016</b> , 116, 7159-329	4018
<sup>1</sup> 474	Photonic nanostructures for solar energy conversion. <b>2016</b> , 9, 2511-2532	109

1473 Metal-Organic Frameworks (MOFs) for Photocatalytic Organic Transformations. **2016**, 523-535

	Nonoclinic Tungsten Oxide with {100} Facet Orientation and Tuned Electronic Band Structure for nhanced Photocatalytic Oxidations. <b>2016</b> , 8, 10367-74	86
	uning of photocatalytic reduction by conduction band engineering of semiconductor quantum ots with experimental evaluation of the band edge potential. <b>2016</b> , 52, 6185-8	12
	l and Li co-doping effects on structural, band-gap, and photocatalytic properties of yro-hydrolyzed ZnO nano-powder. <b>2016</b> , 42, 10410-10421	13
	lanoscale Solvation Leads to Spontaneous Formation of a Bicarbonate Monolayer on Rutile (110) nder Ambient Conditions: Implications for CO2 Photoreduction. <b>2016</b> , 120, 9326-9333	33
116×	eduction of CO2 with Water on Pt-Loaded Rutile TiO2(110) Modeled with Density Functional heory. <b>2016</b> , 120, 9160-9164	24
	oupling carbon dioxide reduction with water oxidation in nanoscale photocatalytic assemblies. <b>016</b> , 45, 3221-43	93
	iomimetic polymeric semiconductor based hybrid nanosystems for artificial photosynthesis owards solar fuels generation via CO2 reduction. <b>2016</b> , 25, 128-135	83
1465 H	ydrogen and CO2 Reduction Reactions: Mechanisms and Catalysts. <b>2016</b> , 105-160	8
	acile One-Step Synthesis of Hybrid Graphitic Carbon Nitride and Carbon Composites as ligh-Performance Catalysts for CO2 Photocatalytic Conversion. <b>2016</b> , 8, 17212-9	109
	isible light driven reduction of CO 2 catalyzed by an abundant manganese catalyst with zinc orphyrin photosensitizer. <b>2016</b> , 522, 145-151	39
1462 P	hotocatalytic CO2 Reduction to CO by ZIF-9/TiO2. <b>2016</b> , 491-506	
	urprisingly advanced CO 2 photocatalytic conversion over thiourea derived g-C 3 N 4 with water apor while introducing 200월20 nm UV light. <b>2016</b> , 14, 143-151	43
1460 H	ow Oxygen Vacancies Activate CO2Dissociation on TiO2Anatase (001). <b>2016</b> , 120, 21659-21669	105
	rapheneßemiconductor Hybrid Photocatalysts and Their Application in Solar Fuel Production. <b>016</b> , 353-386	2
	exygen-Deficient BiOBr as a Highly Stable Photocatalyst for Efficient CO2 Reduction into enewable Carbon-Neutral Fuels. <b>2016</b> , 8, 3074-3081	91
	nvironmental issues regarding CO2 and recent strategies for alternative fuels through hotocatalytic reduction with titania-based materials. <b>2016</b> , 4, 3934-3953	30
	eterogeneous Molecular Systems for Photocatalytic CO Reduction with Water Oxidation. <b>2016</b> , 5, 14924-14950	263

1455	Water-in-Supercritical CO Microemulsion Stabilized by a Metal Complex. <b>2016</b> , 55, 13533-13537	12
1454	Nanostructured hybrid materials based on reduced graphene oxide for solar energy conversion. <b>2016</b> ,	3
1453	MetalBrganic redox vehicles to encapsulate organic dyes for photocatalytic protons and carbon dioxide reduction. <b>2016</b> , 3, 1256-1263	7
1452	[ReCl(CO)3(phen-dione)] as a homogeneous and heterogeneous electrocatalyst for the reduction of carbon dioxide. <b>2016</b> , 16, 354-360	13
1451	Alkaline-earth metal-oxide overlayers on TiO2: application toward CO2 photoreduction. <b>2016</b> , 6, 7885-7895	22
1450	Water-in-Supercritical CO2 Microemulsion Stabilized by a Metal Complex. <b>2016</b> , 128, 13731-13735	5
1449	Simple method for preparing of sulfurdoped graphitic carbon nitride with superior activity in CO2 photoreduction. <b>2016</b> , 1, 4987-4993	36
1448	Recent Advances in Heterogeneous Photocatalytic CO2 Conversion to Solar Fuels. <b>2016</b> , 6, 7485-7527	744
1447	Novel TiO/CN Photocatalysts for Photocatalytic Reduction of CO and for Photocatalytic Decomposition of NO. <b>2016</b> , 120, 8564-8573	127
1446	Status and Perspectives on the Photocatalytic Reduction of CO2. <b>2016</b> , 229-288	
1446	Status and Perspectives on the Photocatalytic Reduction of CO2. <b>2016</b> , 229-288  Zinc-Reduced Mesoporous TiO Li-Ion Battery Anodes with Exceptional Rate Capability and Cycling Stability. <b>2016</b> , 11, 3382-3388	7
	Zinc-Reduced Mesoporous TiO Li-Ion Battery Anodes with Exceptional Rate Capability and Cycling	7 153
1445	Zinc-Reduced Mesoporous TiO Li-Ion Battery Anodes with Exceptional Rate Capability and Cycling Stability. <b>2016</b> , 11, 3382-3388	
1445 1444	Zinc-Reduced Mesoporous TiO Li-Ion Battery Anodes with Exceptional Rate Capability and Cycling Stability. 2016, 11, 3382-3388  On the general mechanism of photocatalytic reduction of CO2. 2016, 16, 194-203  Power-to-Fuel and Artificial Photosynthesis for Chemical Energy Storage. 2016, 493-566	
1445 1444 1443	Zinc-Reduced Mesoporous TiO Li-Ion Battery Anodes with Exceptional Rate Capability and Cycling Stability. 2016, 11, 3382-3388  On the general mechanism of photocatalytic reduction of CO2. 2016, 16, 194-203  Power-to-Fuel and Artificial Photosynthesis for Chemical Energy Storage. 2016, 493-566	153
1445 1444 1443	Zinc-Reduced Mesoporous TiO Li-Ion Battery Anodes with Exceptional Rate Capability and Cycling Stability. 2016, 11, 3382-3388  On the general mechanism of photocatalytic reduction of CO2. 2016, 16, 194-203  Power-to-Fuel and Artificial Photosynthesis for Chemical Energy Storage. 2016, 493-566  Converting carbon dioxide into alkanes via alkane reverse combustion reaction. 2016, 61, 1160-1162  Molecular deposition of a macrocyclic cobalt catalyst on TiO2 nanoparticles. 2016, 423, 293-299  3DOM-LaSrCoFeO6@s a highly active catalyst for the thermal and photothermal reduction of	153
1445 1444 1443 1442 1441	Zinc-Reduced Mesoporous TiO Li-Ion Battery Anodes with Exceptional Rate Capability and Cycling Stability. 2016, 11, 3382-3388  On the general mechanism of photocatalytic reduction of CO2. 2016, 16, 194-203  Power-to-Fuel and Artificial Photosynthesis for Chemical Energy Storage. 2016, 493-566  Converting carbon dioxide into alkanes via alkane reverse combustion reaction. 2016, 61, 1160-1162  Molecular deposition of a macrocyclic cobalt catalyst on TiO2 nanoparticles. 2016, 423, 293-299  3DOM-LaSrCoFeO6las a highly active catalyst for the thermal and photothermal reduction of	153 2 9 83

1437	Photocatalytic CO2reduction by highly dispersed Cu sites on TiO2. <b>2016</b> , 7, 012004	12
1436	High Efficiency Epitaxial-Graphene/Silicon-Carbide Photocatalyst with Tunable Photocatalytic Activity and Bandgap Narrowing. <b>2016</b> , 3, 1600413	5
1435	Optical studies of cobalt implanted rutile TiO2 (110) surfaces. <b>2016</b> , 387, 938-943	8
1434	A computational study of the competing reaction mechanisms of the photo-catalytic reduction of CO on anatase(101). <b>2016</b> , 18, 25010-25021	12
1433	Boron-doped diamond semiconductor electrodes: Efficient photoelectrochemical CO reduction through surface modification. <b>2016</b> , 6, 38010	39
1432	New Mechanism for Photocatalytic Reduction of CO on the Anatase TiO(101) Surface: The Essential Role of Oxygen Vacancy. <b>2016</b> , 138, 15896-15902	180
1431	Electrochemical Production of Oxalate and Formate from CO2by Solvated Electrons Produced Using an Atmospheric-Pressure Plasma. <b>2016</b> , 163, F1157-F1161	26
1430	Charge Transport in Two-Photon Semiconducting Structures for Solar Fuels. <b>2016</b> , 9, 2878-2904	33
1429	Enzyme Mediated Increase in Methanol Production from Photoelectrochemical Cells and CO2. <b>2016</b> , 6, 6982-6986	26
1428	Synthesis of single-crystalline, porous TaON microspheres toward visible-light photocatalytic conversion of CO2 into liquid hydrocarbon fuels. <b>2016</b> , 6, 90792-90796	23
1427	Drastically Improved Durability and Efficiency of Silicon Solar Cells Using Hyper-Stable Lanthanide Coordination Polymer Beads. <b>2016</b> , 89, 103-109	18
1426	Recent advances in non-metal modification of graphitic carbon nitride for photocatalysis: a historic review. <b>2016</b> , 6, 7002-7023	271
1425	Graphene/TiO2 Nanocomposites: Synthesis Routes, Characterization, and Photocatalytic Performance. <b>2016</b> , 481-492	
1424	Thermodynamics of CO2 Electroreduction. <b>2016</b> , 61-116	
1423	Ultrathin TiO2 flakes optimizing solar light driven CO2 reduction. <b>2016</b> , 26, 692-698	83
1422	Nanostructured palladium catalyst poisoning depressed by cobalt phosphide in the electro-oxidation of formic acid for fuel cells. <b>2016</b> , 30, 355-361	86
1421	Heterogeneous reduction of carbon dioxide by hydride-terminated silicon nanocrystals. <b>2016</b> , 7, 12553	73
1420	A porphyrin-based metal organic framework for high rate photoreduction of CO2 to CH4 in gas phase. <b>2016</b> , 16, 450-457	64

1419 Synergistic Electrochemical CO2 Reduction and Water Oxidation with a Bipolar Membrane. **2016**, 1, 1143-114889

1418 Metal-Organic Frameworks for CO Chemical Transf	ormations. <b>2016</b> , 12, 6309-6324	371
1417 Graphene in Photocatalysis: A Review. <b>2016</b> , 12, 664	40-6696	605
Soft template inducted hydrothermal BiYO3 cataly. photocatalytic reduction of carbon dioxide. <b>2016</b> , 6		25
Photocatalytic CO 2 reduction promoted by a CuCo heterogeneous light harvesters. <b>2016</b> , 198, 180-188		69
Synthesis of bionic-macro/microporous MgO-modif hydrocarbon fuels. <b>2016</b> , 37, 863-868	ied TiO2 for enhanced CO2 photoreduction into	28
1413 Photocatalytic reduction of CO2 by Cu O nanoclust	er loaded SrTiO3 nanorod thin film. <b>2016</b> , 658, 309-314	50
ZnO quantum dots decorated 3DOM TiO 2 nanocor 1412 photonic structure for highly enhanced photocataly 199, 187-198		63
ZIF-8 derived bimodal carbon modified ZnO photoc reduction performance. <b>2016</b> , 6, 59998-60006	atalysts with enhanced photocatalytic CO2	51
Thermophysical and Electrophysical Properties of C Carbon Nanotubes and Multilayered Graphene. <b>201</b>		2
Surface heterojunction between (001) and (101) factorized highly efficient photoreduction CO 2 to CH 4. <b>2016</b> ;		92
Ordered mesoporous crystalline titania with high the block copolymers. <b>2016</b> , 6, 55834-55841	nermal stability from comb-like liquid crystal	12
1407 Computational study on oxynitride perovskites for	CO2 photoreduction. <b>2016</b> , 122, 207-214	23
1406 Flower-like CdS/CdV2O6 composite for visible-light	photoconversion of CO2 into CH4. <b>2016</b> , 107, 178-186	15
Recent Advances in Inorganic Heterogeneous Elect <b>2016</b> , 28, 3423-52	rocatalysts for Reduction of Carbon Dioxide.	933
A review of one-dimensional TiO2 nanostructured rapplications. <b>2016</b> , 4, 6772-6801	naterials for environmental and energy	655
Photogalvanics: A sustainable and promising device 59, 662-691	for solar energy conversion and storage. <b>2016</b> ,	13
Electrochemical conversion of carbon dioxide into renamercials and the commercialization. <b>2016</b> , 59		110

1401	Photocatalytic conversion of CO over graphene-based composites: current status and future perspective. <b>2016</b> , 1, 185-200	153
1400	Optofluidic membrane microreactor for photocatalytic reduction of CO2. <b>2016</b> , 41, 2457-2465	56
1399	Indirect Z-Scheme BiOI/g-C3N4 Photocatalysts with Enhanced Photoreduction CO2 Activity under Visible Light Irradiation. <b>2016</b> , 8, 3765-75	457
1398	Highly efficient photocatalytic degradation of methylene blue using carbonaceous WO3/TiO2 composites. <b>2016</b> , 23, 629-637	6
1397	Engineering the electronic structure of two-dimensional subnanopore nanosheets using molecular titanium-oxide incorporation for enhanced photocatalytic activity. <b>2016</b> , 7, 1462-1467	29
1396	Artificial photosynthesis using metal/nonmetal-nitride semiconductors: current status, prospects, and challenges. <b>2016</b> , 4, 2801-2820	95
1395	Metal nanoparticle photocatalysts: emerging processes for green organic synthesis. <b>2016</b> , 6, 320-338	93
1394	Toward the Development and Deployment of Large-Scale Carbon Dioxide Capture and Conversion Processes. <b>2016</b> , 55, 3383-3419	145
1393	Surface State Mediated Electron Transfer Across the N-Type SiC/Electrolyte Interface. <b>2016</b> , 120, 6524-6533	18
1392	Photocatalytic reduction of CO 2 by CO co-feed combined with photocatalytic water splitting in a novel twin reactor. <b>2016</b> , 116, 184-193	21
1391	Enhanced photocatalytic activity of TiO2\(\textstyle{\mathbb{L}}\)u/C with regulation and matching of energy levels by carbon and copper for photoreduction of CO2 into CH4. <b>2016</b> , 18, 2956-2964	31
1390	CO2 photo-reduction: insights into CO2 activation and reaction on surfaces of photocatalysts. <b>2016</b> , 9, 2177-2196	1038
1389	Theoretical Study on the Mechanism of Photoreduction of CO2 to CH4 on the Anatase TiO2(101) Surface. <b>2016</b> , 6, 2018-2025	110
1388	Solar photothermochemical alkane reverse combustion. <b>2016</b> , 113, 2579-84	32
1387	Synthesis, characterization and enhanced photocatalytic CO2 reduction activity of graphene supported TiO2 nanocrystals with coexposed {001} and {101} facets. <b>2016</b> , 18, 13186-95	72
1386	Ultrafast and Efficient Transport of Hot Plasmonic Electrons by Graphene for Pt Free, Highly Efficient Visible-Light Responsive Photocatalyst. <b>2016</b> , 16, 1760-7	100
1385	Facet-dependent photocatalytic reduction of CO2 on BiOI nanosheets. <b>2016</b> , 291, 39-46	139
1384	Au Nanoparticles Supported Nanoporous ZnO Sphere for Enhanced Photocatalytic Activity Under UV-Light Irradiation. <b>2016</b> , 27, 1159-1170	4

## (2016-2016)

1383	Suppression of Photoanodic Surface Oxidation of n-Type 6H-SiC Electrodes in Aqueous Electrolytes. <b>2016</b> , 32, 1637-44	7
1382	CO2 Reduction by Photoelectrochemistry. <b>2016</b> , 281-296	4
1381	Highly efficient visible-light-driven CO2 reduction to formate by a new anthracene-based zirconium MOF via dual catalytic routes. <b>2016</b> , 4, 2657-2662	174
1380	Photocatalytic production of hydrogen from biomass-derived feedstocks. <b>2016</b> , 315, 1-66	238
1379	Photocatalytic reduction of CO2 with H2O on CuO/TiO2 catalysts. <b>2016</b> , 38, 420-426	24
1378	Surface plasmon resonance of gold nanocrystals coupled with slow-photon-effect of biomorphic TiO2 photonic crystals for enhanced photocatalysis under visible-light. <b>2016</b> , 274, 15-21	25
1377	Solution Combustion Synthesis, Characterization, and Photoelectrochemistry of CuNb2O6 and ZnNb2O6 Nanoparticles. <b>2016</b> , 120, 16024-16034	45
1376	Photoelectrochemical oxidation of ibuprofen via Cu2O-doped TiO2 nanotube arrays. <b>2016</b> , 319, 121-9	58
1375	Hierarchical photocatalysts. <b>2016</b> , 45, 2603-36	1216
1374	Carbon-based two-dimensional layered materials for photocatalytic CO 2 reduction to solar fuels. <b>2016</b> , 3, 24-35	146
1373	Photoreactor Design Aspects and Modeling of Light. <b>2016</b> , 211-248	5
1372	Efficient Visible Light Photocatalytic CO2 Reforming of CH4. <b>2016</b> , 6, 494-497	163
1371	The application of a novel fluidised photo reactor under UVIV isible and natural solar irradiation in the photocatalytic generation of hydrogen. <b>2016</b> , 286, 610-621	29
1370	The Carbon Dioxide Molecule. <b>2016</b> , 1-34	2
1369	Enhancement of photocatalytic reduction of CO2 to CH4 over TiO2 nanosheets by modifying with sulfuric acid. <b>2016</b> , 364, 416-427	92
1368	Self-assembled nanoparticle-stabilized photocatalytic reactors. <b>2016</b> , 8, 2107-15	18
1367	Heterogeneous Photocatalysis. <b>2016</b> ,	42
1366	Facile synthesis of anatase-rutile TiO 2 composites with enhanced CO 2 photoreduction activity and the effect of Pt loading on product selectivity. <b>2016</b> , 163, 240-243	23

1365	TiO2/vanadate (Sr10V6O25, Ni3V2O8, Zn2V2O7) heterostructured photocatalysts with enhanced photocatalytic activity for photoreduction of CO2 into CH4. <b>2016</b> , 8, 949-58	39
1364	Photocatalytic transformation of CO2 to CH4 and CO on acidic surface of TiO2 anatase. <b>2016</b> , 56, 80-83	16
1363	Solar CO2 Reduction Using Surface-Immobilized Molecular Catalysts. <b>2016</b> , 36, 38-60	20
1362	Photocatalytic reduction of carbon dioxide in alkaline medium on La modified sodium tantalate with different co-catalysts under UVI/isible radiation. <b>2016</b> , 266, 160-167	31
1361	Photocatalytic and photoelectrocatalytic reduction of CO2 using heterogeneous catalysts with controlled nanostructures. <b>2016</b> , 52, 35-59	383
1360	Photocatalytic water splitting and hydrogenation of CO2 in a novel twin photoreactor with IO3/III shuttle redox mediator. <b>2016</b> , 518, 158-166	20
1359	An artificial photosynthesis system based on CeO2 as light harvester and N-doped graphene Cu(II) complex as artificial metalloenzyme for CO2 reduction to methanol fuel. <b>2016</b> , 73, 7-11	43
1358	Photocatalytic reduction of CO2 with H2O to CH4 over ultrathin SnNb2O6 2D nanosheets under visible light irradiation. <b>2016</b> , 18, 1355-1363	107
1357	Hydrogen energy future with formic acid: a renewable chemical hydrogen storage system. <b>2016</b> , 6, 12-40	333
1356	Tuning the selectivity toward CO evolution in the photocatalytic conversion of CO2 with H2O through the modification of Ag-loaded Ga2O3 with a ZnGa2O4 layer. <b>2016</b> , 6, 1025-1032	73
1355	Recent advances in the photocatalytic reduction of carbon dioxide. <b>2016</b> , 14, 99-112	46
1354	Ag-loading on brookite TiO2 quasi nanocubes with exposed {2 1 0} and {0 0 1} facets: Activity and selectivity of CO2 photoreduction to CO/CH4. <b>2016</b> , 180, 130-138	107
1353	Reduced graphene oxide <b>L</b> uO nanocomposites for photocatalytic conversion of CO2 into methanol under visible light irradiation. <b>2016</b> , 181, 352-362	218
1352	Photocatalytic CO 2 reduction vs. H 2 production: The effects of surface carbon-containing impurities on the performance of TiO 2 -based photocatalysts. <b>2017</b> , 281, 214-220	32
1351	A review on g-C 3 N 4 -based photocatalysts. <b>2017</b> , 391, 72-123	1687
1350	A review on photocatalysis for air treatment: From catalyst development to reactor design. <b>2017</b> , 310, 537-559	335
1349	Alternative photocatalysts to TiO 2 for the photocatalytic reduction of CO 2. <b>2017</b> , 391, 149-174	137
1348	Openmouthed	60

1347	Grain boundary engineered metal nanowire cocatalysts for enhanced photocatalytic reduction of carbon dioxide. <b>2017</b> , 206, 282-292	55
1346	Mechanistic insights into CO reduction on Cu/Mo-loaded two-dimensional g-CN(001). <b>2017</b> , 19, 4405-4410	48
1345	Hierarchical Porous O-Doped g-C N with Enhanced Photocatalytic CO Reduction Activity. <b>2017</b> , 13, 1603938	732
1344	Harnessing VisNIR broad spectrum for photocatalytic CO2 reduction over carbon quantum dots-decorated ultrathin Bi2WO6 nanosheets. <b>2017</b> , 10, 1720-1731	107
1343	Fabrication of Heterostructured g-C3N4/Ag-TiO2 Hybrid Photocatalyst with Enhanced Performance in Photocatalytic Conversion of CO2 Under Simulated Sunlight Irradiation. <b>2017</b> , 402, 198-207	82
1342	Enhanced Photocatalytic Performance toward CO2 Hydrogenation over Nanosized TiO2-Loaded Pd under UV Irradiation. <b>2017</b> , 121, 2923-2932	48
1341	Hierarchical yolkEhell layered potassium niobate for tuned pH-dependent photocatalytic H2 evolution. <b>2017</b> , 7, 1000-1005	24
1340	Electrochemical and Photoelectrochemical Properties of Screen-Printed Nickel Oxide Thin Films Obtained from Precursor Pastes with Different Compositions. <b>2017</b> , 164, H137-H147	35
1339	Flame spray pyrolysis synthesized ZnO/CeO 2 nanocomposites for enhanced CO 2 photocatalytic reduction under UVII is light irradiation. <b>2017</b> , 18, 53-61	73
1338	Tailoring Photoelectrochemical Performance and Stability of Cu(In,Ga)Se Photocathode via TiO-Coupled Buffer Layers. <b>2017</b> , 9, 5279-5287	28
1337	Graphitic C3N4 based noble-metal-free photocatalyst systems: A review. <b>2017</b> , 206, 556-588	451
1336	IR spectroscopic investigations of chemical and photochemical reactions on metal oxides: bridging the materials gap. <b>2017</b> , 46, 1875-1932	120
1335	A quasi-hexagonal prism-shaped carbon nitride for photoreduction of carbon dioxide under visible light. <b>2017</b> , 24, 8219-8229	7
1334	Simultaneous Synthesis of Anatase Colloidal and Multiple-branched Rutile TiO2 Nanostructures. <b>2017</b> , 38, 401-405	1
1333	Graphene-Draped Semiconductors for Enhanced Photocorrosion Resistance and Photocatalytic Properties. <b>2017</b> , 139, 4144-4151	116
1332	Water Oxidation Mechanisms of Metal Oxide Catalysts by Vibrational Spectroscopy of Transient Intermediates. <b>2017</b> , 68, 209-231	25
1331	Unravelling charge carrier dynamics in protonated g-C3N4 interfaced with carbon nanodots as co-catalysts toward enhanced photocatalytic CO2 reduction: A combined experimental and first-principles DFT study. <b>2017</b> , 10, 1673-1696	290
1330	KuQuinones as sensitizers for NiO based p-type dye-sensitized solar cells. <b>2017</b> , 41, 2769-2779	22

1329	Graphene nanobubbles on TiO for in-operando electron spectroscopy of liquid-phase chemistry. <b>2017</b> , 9, 4456-4466	25
1328	AuPd/3DOM-TiO 2 catalysts for photocatalytic reduction of CO 2 : High efficient separation of photogenerated charge carriers. <b>2017</b> , 209, 228-239	116
1327	Ceria and ceria-based nanostructured materials for photoenergy applications. 2017, 34, 313-337	79
1326	Artificial photosynthesis of methanol from carbon dioxide and water via a Nile red-embedded TiO2 photocathode. <b>2017</b> , 5, 5495-5501	34
1325	Unique Zinc Germanium Oxynitride Hyperbranched Nanostructures with Enhanced Visible-Light Photocatalytic Activity for CO2 Reduction. <b>2017</b> , 2017, 2195-2200	18
1324	Which is an Intermediate Species for Photocatalytic Conversion of CO2 by H2O as the Electron Donor: CO2 Molecule, Carbonic Acid, Bicarbonate, or Carbonate Ions?. <b>2017</b> , 121, 8711-8721	43
1323	Retracted Article: Recent advances of metalihetal oxide nanocomposites and their tailored nanostructures in numerous catalytic applications. <b>2017</b> , 5, 9465-9487	233
1322	Laser induced selective photo-catalytic reduction of CO 2 into methanol using In 2 O 3 -WO 3 nano-composite. <b>2017</b> , 343, 40-50	29
1321	A hexanuclear cobalt metal@rganic framework for efficient CO2 reduction under visible light. <b>2017</b> , 5, 12498-12505	82
1320	2D-2D MnO2/g-C3N4 heterojunction photocatalyst: In-situ synthesis and enhanced CO2 reduction activity. <b>2017</b> , 120, 23-31	171
1319	Energy-saving pathway exploration of CCS integrated with solar energy: A review of innovative concepts. <b>2017</b> , 77, 652-669	23
1318	Unraveling the role of surface property in the photoreduction performance of CO 2 and H 2 O catalyzed by the modified ZnO. <b>2017</b> , 436, 19-28	13
1317	Alterations in the surface features of S-doped carbon and g-C3N4 photocatalysts in the presence of CO2 and water upon visible light exposure. <b>2017</b> , 5, 16315-16325	22
1316	Metal nanoparticles induced photocatalysis. <b>2017</b> , 4, 761-780	103
1315	Recent progress and perspectives in the photocatalytic CO2 reduction of Ti-oxide-based nanomaterials. <b>2017</b> , 396, 1696-1711	122
1314	Titania Cowrapped ⊞ulfur Composite as a Visible Light Active Photocatalyst for Hydrogen Evolution Using in Situ Methanol from CO2 as a Sacrificial Agent. <b>2017</b> , 5, 6736-6745	14
1313	Inorganic semiconductors-graphene composites in photo(electro)catalysis: Synthetic strategies, interaction mechanisms and applications. <b>2017</b> , 33, 132-164	43
1312	Hydriding Pd cocatalysts: An approach to giant enhancement on photocatalytic CO2 reduction into CH4. <b>2017</b> , 10, 3396-3406	72

1311	Recent Progress in the Photocatalytic Reduction of Carbon Dioxide. <b>2017</b> , 2, 2740-2748	142
1310	Present Perspectives of Advanced Characterization Techniques in TiO-Based Photocatalysts. <b>2017</b> , 9, 23265-23286	78
1309	Defect-Mediated Electron-Hole Separation in One-Unit-Cell ZnInS Layers for Boosted Solar-Driven CO Reduction. <b>2017</b> , 139, 7586-7594	498
1308	Controlling the shape of anatase nanocrystals for enhanced photocatalytic reduction of CO2 to methanol. <b>2017</b> , 41, 5660-5668	15
1307	Recombinant Light Harvesting Complexes: Views and Perspectives. 2017, 33-49	О
1306	Photo-induced CO2 reduction by CH4/H2O to fuels over Cu-modified g-C3N4 nanorods under simulated solar energy. <b>2017</b> , 419, 875-885	111
1305	Visible-Light Photoreduction of CO to CH over ZnTe-Modified TiO Coral-Like Nanostructures. <b>2017</b> , 18, 3203-3210	11
1304	Greening the Processes of Metal-Organic Framework Synthesis and their Use in Sustainable Catalysis. <b>2017</b> , 10, 3165-3187	97
1303	Heterojunction p-n-p Cu2O/S-TiO2/CuO: Synthesis and application to photocatalytic conversion of CO2 to methane. <b>2017</b> , 20, 91-96	51
1302	Enhanced CO2 photocatalytic reduction on alkali-decorated graphitic carbon nitride. 2017, 216, 146-155	88
1301	Strontium Titanate Based Artificial Leaf Loaded with Reduction and Oxidation Cocatalysts for Selective CO Reduction Using Water as an Electron Donor. <b>2017</b> , 9, 20613-20619	31
1300	Construction of unique two-dimensional MoS-TiO hybrid nanojunctions: MoS as a promising cost-effective cocatalyst toward improved photocatalytic reduction of CO to methanol. <b>2017</b> , 9, 9065-9070	95
1299	Full-Spectrum Solar-Light-Activated Photocatalysts for Light@hemical Energy Conversion. 2017, 7, 1700473	135
1298	Photocatalytic fuel production. <b>2017</b> , 2, 128-135	10
1297	Coordination chemistry in the design of heterogeneous photocatalysts. <b>2017</b> , 46, 2799-2823	305
1296	Ti as Mediator in the Photoinduced Electron Transfer of Mixed-Metal NH2DiO-66(Zr/Ti): Transient Absorption Spectroscopy Study and Application in Photovoltaic Cell. <b>2017</b> , 121, 7015-7024	78
1295	Fabrication of In 2 O 3 -Ag-Ag 3 PO 4 composites with Z-scheme configuration for photocatalytic ethylene degradation under visible light irradiation. <b>2017</b> , 320, 644-652	52
1294	Enriching CO2 Activation Sites on Graphitic Carbon Nitride with Simultaneous Introduction of Electron-Transfer Promoters for Superior Photocatalytic CO2-to-Fuel Conversion. <b>2017</b> , 1, 1700003	50

1293	Enhanced photocatalytic conversion of greenhouse gas CO2 into solar fuels over g-C3N4 nanotubes with decorated transparent ZIF-8 nanoclusters. <b>2017</b> , 211, 1-10	218
1292	Enhanced photo-catalytic activity of ordered mesoporous indium oxide nanocrystals in the conversion of CO into methanol. <b>2017</b> , 52, 785-793	10
1291	Facet effect of Pd cocatalyst on photocatalytic CO 2 reduction over g-C 3 N 4. <b>2017</b> , 349, 208-217	262
1290	Fabrication of branched nanostructures for CNT@Ag nano-hybrids: application in CO2 gas detection. <b>2017</b> , 5, 4226-4235	17
1289	Roles of Two-Dimensional Transition Metal Dichalcogenides as Cocatalysts in Photocatalytic Hydrogen Evolution and Environmental Remediation. <b>2017</b> , 56, 4611-4626	77
1288	A simple ultrasono-synthetic route of PbSe-graphene-TiO2 ternary composites to improve the photocatalytic reduction of CO2. <b>2017</b> , 25, 449-458	13
1287	Nanomaterials for the Conversion of Carbon Dioxide into Renewable Fuels and Value-Added Products. <b>2017</b> , 1107-1138	1
1286	The role of electron interfacial transfer in mesoporous nano-TiO photocatalysis: a combined study of in situ photoconductivity and numerical kinetic simulation. <b>2017</b> , 19, 8866-8873	18
1285	Photocatalysis. <b>2017</b> , 243-268	
1284	CO 2 capture and photocatalytic reduction using bifunctional TiO 2 /MOF nanocomposites under UVIIis irradiation. <b>2017</b> , 210, 131-140	204
1284		204
	UVIIis irradiation. <b>2017</b> , 210, 131-140	·
1283	UV is irradiation. 2017, 210, 131-140  Titanium dioxide nanomaterials for photocatalysis. 2017, 50, 193003  Semiconductor, molecular and hybrid systems for photoelectrochemical solar fuel production. 2017	23
1283	UVII is irradiation. 2017, 210, 131-140  Titanium dioxide nanomaterials for photocatalysis. 2017, 50, 193003  Semiconductor, molecular and hybrid systems for photoelectrochemical solar fuel production. 2017, 26, 219-240  Improving photoreduction of CO 2 with water to CH 4 in a novel concentrated solar reactor. 2017,	23
1283 1282 1281	UVIIis irradiation. 2017, 210, 131-140  Titanium dioxide nanomaterials for photocatalysis. 2017, 50, 193003  Semiconductor, molecular and hybrid systems for photoelectrochemical solar fuel production. 2017, 26, 219-240  Improving photoreduction of CO 2 with water to CH 4 in a novel concentrated solar reactor. 2017, 26, 743-749  Morphological influence of TiO2 nanostructures (nanozigzag, nanohelics and nanorod) on	<ul><li>23</li><li>37</li><li>23</li></ul>
1283 1282 1281 1280	Titanium dioxide nanomaterials for photocatalysis. 2017, 50, 193003  Semiconductor, molecular and hybrid systems for photoelectrochemical solar fuel production. 2017, 26, 219-240  Improving photoreduction of CO 2 with water to CH 4 in a novel concentrated solar reactor. 2017, 26, 743-749  Morphological influence of TiO2 nanostructures (nanozigzag, nanohelics and nanorod) on photocatalytic degradation of organic dyes. 2017, 400, 184-193  Novel photocatalytic activity of Cu@V co-doped TiO2/PU for CO2 reduction with H2O vapor to	<ul><li>23</li><li>37</li><li>23</li><li>71</li></ul>
1283 1282 1281 1280	Titanium dioxide nanomaterials for photocatalysis. 2017, 50, 193003  Semiconductor, molecular and hybrid systems for photoelectrochemical solar fuel production. 2017, 26, 219-240  Improving photoreduction of CO 2 with water to CH 4 in a novel concentrated solar reactor. 2017, 26, 743-749  Morphological influence of TiO2 nanostructures (nanozigzag, nanohelics and nanorod) on photocatalytic degradation of organic dyes. 2017, 400, 184-193  Novel photocatalytic activity of Cu@V co-doped TiO2/PU for CO2 reduction with H2O vapor to produce solar fuels under visible light. 2017, 345, 87-95  Novel visible-light-driven CdIn 2 S 4 /mesoporous g-C 3 N 4 hybrids for efficient photocatalytic	<ul><li>23</li><li>37</li><li>23</li><li>71</li><li>44</li></ul>

1275	Introductory lecture: sunlight-driven water splitting and carbon dioxide reduction by heterogeneous semiconductor systems as key processes in artificial photosynthesis. <b>2017</b> , 198, 11-35	68
1274	Future perspectives for formaldehyde: pathways for reductive synthesis and energy storage. <b>2017</b> , 19, 2347-2355	84
1273	Photoelectrocatalytic reduction of CO2 to methanol over the multi-functionalized TiO2 photocathodes. <b>2017</b> , 205, 254-261	34
1272	Modification of Pd and Mn on the Surface of TiO2 with Enhanced Photocatalytic Activity for Photoreduction of CO2 into CH4. <b>2017</b> , 121, 270-277	17
1271	Liquid Hydrocarbon Production from CO: Recent Development in Metal-Based Electrocatalysis. <b>2017</b> , 10, 4342-4358	41
1270	Visible-Light-Assisted Photocatalytic CO2 Reduction over InTaO4: Selective Methanol Formation. <b>2017</b> , 31, 12434-12438	20
1269	Reaction of CO with Groups 4 and 6 Transition Metal Oxide Clusters. 2017, 121, 8719-8727	8
1268	Modified TiO 2 photocatalyst for CO 2 photocatalytic reduction: An overview. <b>2017</b> , 22, 15-32	162
1267	Modeling of laser-pulse induced water decomposition on two-dimensional materials by simulations based on time-dependent density functional theory. <b>2017</b> , 96,	14
1266	Production of Liquid Solar Fuels and Their Use in Fuel Cells. <b>2017</b> , 1, 689-738	85
1265	Photocatalytic degradation of microcystin-LR with a nanostructured photocatalyst based on upconversion nanoparticles@TiO composite under simulated solar lights. <b>2017</b> , 7, 14435	21
1264	Twin defects engineered Pd cocatalyst on CN nanosheets for enhanced photocatalytic performance in CO reduction reaction. <b>2017</b> , 28, 484003	51
1263	Enhanced Visible Light Photocatalytic Hydrogenation of CO2 into Methane over a Pd/Ce-TiO2 Nanocomposition. <b>2017</b> , 121, 25795-25804	22
1262	Recent Progress in Semiconductor-Based Nanocomposite Photocatalysts for Solar-to-Chemical Energy Conversion. <b>2017</b> , 7, 1700529	139
1261	Radical Behavior of CO versus its Deoxygenation Promoted by Vanadium Aryloxide Complexes: How the Geometry of Intermediate CO -Adducts Determines the Reactivity. <b>2017</b> , 23, 17269-17278	8
1260	Direct Coupling of Thermo- and Photocatalysis for Conversion of CO -H O into Fuels. <b>2017</b> , 10, 4709-4714	40
1259	Electrosynthesis and photoelectrochemical properties of polyaniline/SiC nanohybrid electrodes. <b>2017</b> , 256, 73-80	6
1258	The CO2 dissociation mechanism on the small copper clusters <b>t</b> he influence of geometry. <b>2017</b> , 136, 1	8

1257	Two-dimensional nanomaterials for photocatalytic CO2 reduction to solar fuels. <b>2017</b> , 1, 1875-1898	115
1256	Energy related CO2 conversion and utilization: Advanced materials/nanomaterials, reaction mechanisms and technologies. <b>2017</b> , 40, 512-539	143
1255	Self-assembled bundled TiO nanowire arrays encapsulated with indium tin oxide for broadband absorption in plasmonic photocatalysis. <b>2017</b> , 19, 27059-27064	3
1254	Hydration Structure of Brookite TiO2 (210). <b>2017</b> , 121, 20790-20801	8
1253	Abiotic Synthesis with the C-C Bond Formation in Ethanol from CO over $(Cu,M)(O,S)$ Catalysts with $M = Ni$ , $Sn$ , and $Co.$ <b>2017</b> , 7, 10094	10
1252	Synthesis from C1 Sources. <b>2017</b> , 125-235	
1251	CO Reduction: From the Electrochemical to Photochemical Approach. <b>2017</b> , 4, 1700194	408
1250	Combination of photocatalytic and electrochemical degradation of organic pollutants from water. <b>2017</b> , 6, 78-84	39
1249	Photoassisted methanation using Cu2O nanoparticles supported on graphene as a photocatalyst. <b>2017</b> , 10, 2392-2400	68
1248	Progress in catalyst exploration for heterogeneous CO2 reduction and utilization: a critical review. <b>2017</b> , 5, 21625-21649	244
1247	Identifying the Site-Dependent Photoactivity of Anatase TiO2(001)-(1日) Surface. <b>2017</b> , 121, 19930-19937	14
1246	Bismuth-rich bismuth oxyhalides for environmental and energy photocatalysis. <b>2017</b> , 349, 84-101	227
1245	In situ preparation of Z-scheme MoO3/g-C3N4 composite with high performance in photocatalytic CO2 reduction and RhB degradation. <b>2017</b> , 32, 3660-3668	70
1244	Amino acid-assisted controlling the shapes of rutile, brookite for enhanced photocatalytic CO2 reduction. <b>2017</b> , 19, 4519-4527	9
1243	Perspective: Photocatalytic reduction of CO to solar fuels over semiconductors. 2017, 147, 030901	60
1242	Enhanced carbon dioxide conversion to formate on a multi-functional synergistic photoelectrocatalytic interface. <b>2017</b> , 219, 45-52	24
1241	Photocatalytic CO2 reduction over V and W codoped TiO2 catalyst in an internal-illuminated honeycomb photoreactor under simulated sunlight irradiation. <b>2017</b> , 219, 412-424	56
1240	La2O3-Modified LaTiO2N Photocatalyst with Spatially Separated Active Sites Achieving Enhanced CO2 Reduction. <b>2017</b> , 27, 1702447	66

1239	Reduced Cu/Pt⊞Ca2Ta3O10 Perovskite Nanosheets for Sunlight-Driven Conversion of CO2 into Valuable Fuels. <b>2017</b> , 1, 1700048	10
1238	Modeling photocatalytic conversion of carbon dioxide in bubbling twin reactor. <b>2017</b> , 149, 514-525	17
1237	Photocatalysis: Basic Principles, Diverse Forms of Implementations and Emerging Scientific Opportunities. <b>2017</b> , 7, 1700841	298
1236	In situ chemical transformation synthesis of Bi4Ti3O12/I <b>B</b> iOCl 2D/2D heterojunction systems for water pollution treatment and hydrogen production. <b>2017</b> , 7, 3863-3875	49
1235	Surface modification of layered perovskite SrTiO for improved CO photoreduction with HO to CH. <b>2017</b> , 7, 16370	11
1234	CO adsorption on anatase TiO(101) surfaces: a combination of UHV-FTIRS and first-principles studies. <b>2017</b> , 19, 31267-31273	10
1233	Control of electro-chemical processes using energy harvesting materials and devices. <b>2017</b> , 46, 7757-7786	98
1232	Experimental studies on photocatalytic reduction of CO2 using AgBr decorated g-C3N4 composite in TEA mediated system. <b>2017</b> , 22, 250-261	17
1231	Photocatalytic hydrogen evolution performance of NiS cocatalyst modified LaFeO3/g-C3N4 heterojunctions. <b>2017</b> , 41, 14602-14609	27
1230	Adsorption of Water onto SrTiO from Periodic Mller-Plesset Second-Order Perturbation Theory. <b>2017</b> , 13, 6301-6307	1
1229	Formation of Hierarchical InS-CdInS Heterostructured Nanotubes for Efficient and Stable Visible Light CO Reduction. <b>2017</b> , 139, 17305-17308	418
1228	Metal-Organic Framework-Stabilized CO/Water Interfacial Route for Photocatalytic CO Conversion. <b>2017</b> , 9, 41594-41598	23
1227	Converting of CO into low-molecular-weight organic compounds with the TiO/ZrO composites under solar irradiation. <b>2017</b> , 7, 14446	4
1226	Bionic titania coating carbon multi-layer material derived from natural leaf and its superior photocatalytic performance. <b>2017</b> , 27, 561-565	
1225	Measuring the carrier dynamics of photocatalyst micrograins using the Christiansen effect. <b>2017</b> , 146, 234202	2
1224	Highly selective photocatalytic conversion of CO2 by water over Ag-loaded SrNb2O6 nanorods. <b>2017</b> , 218, 770-778	65
1223	Photocatalytic conversion of CO2 into methanol using graphitic carbon nitride under solar, UV laser and broadband radiations. <b>2017</b> , 41, 2162-2172	19
1222	Investigating the Role of Tunable Nitrogen Vacancies in Graphitic Carbon Nitride Nanosheets for Efficient Visible-Light-Driven H2 Evolution and CO2 Reduction. <b>2017</b> , 5, 7260-7268	224

1221	A review: Effect of nanostructures on photocatalytic CO 2 conversion over metal oxides and compound semiconductors. <b>2017</b> , 20, 163-177	62
1220	Ozone treatment of graphitic carbon nitride with enhanced photocatalytic activity under visible light irradiation. <b>2017</b> , 505, 919-928	21
1219	Highly selective photocatalytic reduction of carbon dioxide with water over silver-loaded calcium titanate. <b>2017</b> , 100, 134-138	45
1218	Ultra-thin nanosheet assemblies of graphitic carbon nitride for enhanced photocatalytic CO2 reduction. <b>2017</b> , 5, 3230-3238	465
1217	Carbon nitride nanodots decorated brookite TiO2 quasi nanocubes for enhanced activity and selectivity of visible-light-driven CO2 reduction. <b>2017</b> , 203, 910-916	67
1216	The effect of rare earth element doping on the microstructural evolution of sol-gel titania powders. <b>2017</b> , 695, 1336-1353	23
1215	Multifunctional metal-organic framework catalysts: synergistic catalysis and tandem reactions. <b>2017</b> , 46, 126-157	1208
1214	Nanoporous Au Thin Films on Si Photoelectrodes for Selective and Efficient Photoelectrochemical CO2 Reduction. <b>2017</b> , 7, 1601103	102
1213	Photocatalytic Water Splitting and Carbon Dioxide Reduction. 2017, 2709-2756	8
1212	A novel reaction mode using H2 produced from solid-liquid reaction to promote CO2 reduction through solid-gas reaction. <b>2017</b> , 89, 4-8	8
1211	Noble metalinetal oxide nanohybrids with tailored nanostructures for efficient solar energy conversion, photocatalysis and environmental remediation. <b>2017</b> , 10, 402-434	638
1210	Enhanced selective photocatalytic CO 2 reduction into CO over Ag/CdS nanocomposites under visible light. <b>2017</b> , 391, 572-579	82
1209	Facile decoration of carbon fibers with Ag nanoparticles for adsorption and photocatalytic reduction of CO2. <b>2017</b> , 202, 314-325	51
1208	Selective photocatalytic reduction of CO2 into CH4 over Pt-Cu2O TiO2 nanocrystals: The interaction between Pt and Cu2O cocatalysts. <b>2017</b> , 202, 695-703	153
1207	Different CdSeTe structure determined photoelectrocatalytic reduction performance for carbon dioxide. <b>2017</b> , 496, 327-333	14
1206	Dynamic Self-Assembly Encodes A Tri-stable Au-TiO Photocatalyst. <b>2017</b> , 29, 1604948	46
1205	Surface modification and enhanced photocatalytic CO2 reduction performance of TiO2: a review. <b>2017</b> , 392, 658-686	782
1204	A Microfluidic Reactor for Solar Fuel Production from Photocatalytic CO 2 Reduction. <b>2017</b> , 142, 501-506	2

1203	Photodriven CO2 Reduction Assisted by Surface Plasmon Resonance of Nanometals. 2017, 38, 280-285	1
1202	Synthesis and Catalytic Applications of Non-Metal Doped Mesoporous Titania. <b>2017</b> , 5, 15	50
1201	Advances in Photocatalytic COIReduction with Water: A Review. 2017, 10,	124
1200	2D Transition Metal Dichalcogenides and Graphene-Based Ternary Composites for Photocatalytic Hydrogen Evolution and Pollutants Degradation. <b>2017</b> , 7,	26
1199	Reactor Design for CO2 Photo-Hydrogenation toward Solar Fuels under Ambient Temperature and Pressure. <b>2017</b> , 7, 63	13
1198	Liquid vs. Gas Phase CO2 Photoreduction Process: Which Is the Effect of the Reaction Medium?. <b>2017</b> , 10, 1394	35
1197	2D/2D Graphitic Carbon Nitride (g-C3N4) Heterojunction Nanocomposites for Photocatalysis: Why Does Face-to-Face Interface Matter?. <b>2017</b> , 4,	178
1196	Nanostructured Semiconductor Materials for Dye-Sensitized Solar Cells. <b>2017</b> , 2017, 1-31	71
1195	Effective Charge Carrier Utilization in Visible-Light-Driven CO2 Conversion. 2017, 97, 429-467	3
1194	Plasmonics Devoted to Photocatalytic Applications in Liquid, Gas, and Biological Environments. <b>2017</b> ,	1
1193	Photoredox catalysis over graphene aerogel-supported composites. <b>2018</b> , 6, 4590-4604	149
1192	Dramatic Enhancement of CO2 Photoreduction by Biodegradable Light-Management Paper. <b>2018</b> , 8, 1703136	24
1191	1D carbon nanofibers@TiO2 core-shell nanocomposites with enhanced photocatalytic activity toward CO2 reduction. <b>2018</b> , 746, 168-176	32
1190	Necessary and sufficient conditions for the successful three-phase photocatalytic reduction of CO by HO over heterogeneous photocatalysts. <b>2018</b> , 20, 8423-8431	31
1189	Photocatalytic reduction of CO2 using CdS nanorods on porous anodic alumina support. <b>2018</b> , 102, 440-449	32
1188	Imaging Catalytic Activation of CO on CuO (110): A First-Principles Study. <b>2018</b> , 30,	35
1187	Research Frontiers in Solar Light Harvesting. <b>2018</b> , 1-26	
1186	Recent Advances on Photocatalysis for Water Detoxification and CO2 Reduction. <b>2018</b> , 27-51	

1185	Solvent Effects on the Photoelectrochemical Water Oxidation Behaviour of TiO2 Semiconductors. <b>2018</b> , 5, 10161-10168	3
1184	Novel and simple process for the photocatalytic reduction of CO2 with ternary Bi2O3graphene <b>I</b> nO nanocomposite. <b>2018</b> , 29, 10222-10233	10
1183	Visible-Light-Driven Photoreduction of CO2 to CH4 over N,O,P-Containing Covalent Organic Polymer Submicrospheres. <b>2018</b> , 8, 4576-4581	71
1182	Artificial Photosynthesis of Methanol by Mn:CdS and CdSeTe Quantum Dot Cosensitized Titania Photocathode in Imine-Based Ionic Liquid Aqueous Solution. <b>2018</b> , 10, 3342-3350	12
1181	Recent Advances in Photocatalytic CO2 Reduction Using Earth-Abundant Metal Complexes-Derived Photocatalysts. <b>2018</b> , 36, 455-460	27
1180	Preparation of Cu2O modified TiO2 nanopowder and its application to the visible light photoelectrocatalytic reduction of CO2 to CH3OH. <b>2018</b> , 700, 57-63	14
1179	A direct Z-scheme plasmonic AgCl@g-C3N4 heterojunction photocatalyst with superior visible light CO2 reduction in aqueous medium. <b>2018</b> , 450, 516-526	71
1178	Visible-Light Heterogeneous Catalysts for Photocatalytic CO2 Reduction. <b>2018</b> , 421-446	5
1177	Excess electrons in reduced rutile and anatase TiO2. <b>2018</b> , 73, 58-82	75
1176	Recent progress on advanced design for photoelectrochemical reduction of CO2 to fuels. <b>2018</b> , 61, 771-805	115
1176	Recent progress on advanced design for photoelectrochemical reduction of CO2 to fuels. <b>2018</b> , 61, 771-805  Tailoring performance of La-modified TiO 2 nanocatalyst for continuous photocatalytic CO 2 reforming of CH 4 to fuels in the presence of H 2 O. <b>2018</b> , 159, 284-298	<ul><li>115</li><li>60</li></ul>
•	Tailoring performance of La-modified TiO 2 nanocatalyst for continuous photocatalytic CO 2	Ĭ
1175	Tailoring performance of La-modified TiO 2 nanocatalyst for continuous photocatalytic CO 2 reforming of CH 4 to fuels in the presence of H 2 O. <b>2018</b> , 159, 284-298  Fabrication of nano copper oxide evenly patched on cubic sodium tantalate for oriented	60
1175 1174	Tailoring performance of La-modified TiO 2 nanocatalyst for continuous photocatalytic CO 2 reforming of CH 4 to fuels in the presence of H 2 O. <b>2018</b> , 159, 284-298  Fabrication of nano copper oxide evenly patched on cubic sodium tantalate for oriented photocatalytic reduction of carbon dioxide. <b>2018</b> , 518, 34-40	60
1175 1174 1173	Tailoring performance of La-modified TiO 2 nanocatalyst for continuous photocatalytic CO 2 reforming of CH 4 to fuels in the presence of H 2 O. <b>2018</b> , 159, 284-298  Fabrication of nano copper oxide evenly patched on cubic sodium tantalate for oriented photocatalytic reduction of carbon dioxide. <b>2018</b> , 518, 34-40  Recent developments of metallic nanoparticle-graphene nanocatalysts. <b>2018</b> , 94, 306-383  Photocatalytic synthesis of Schiff base compounds in the coupled system of aromatic alcohols and	60 15 72
1175 1174 1173 1172 1171	Tailoring performance of La-modified TiO 2 nanocatalyst for continuous photocatalytic CO 2 reforming of CH 4 to fuels in the presence of H 2 O. 2018, 159, 284-298  Fabrication of nano copper oxide evenly patched on cubic sodium tantalate for oriented photocatalytic reduction of carbon dioxide. 2018, 518, 34-40  Recent developments of metallic nanoparticle-graphene nanocatalysts. 2018, 94, 306-383  Photocatalytic synthesis of Schiff base compounds in the coupled system of aromatic alcohols and nitrobenzene using CdXZn1kS photocatalysts. 2018, 359, 151-160  Self-assembled hierarchical direct Z-scheme g-C3N4/ZnO microspheres with enhanced	60 15 72 35
1175 1174 1173 1172 1171	Tailoring performance of La-modified TiO 2 nanocatalyst for continuous photocatalytic CO 2 reforming of CH 4 to fuels in the presence of H 2 O. 2018, 159, 284-298  Fabrication of nano copper oxide evenly patched on cubic sodium tantalate for oriented photocatalytic reduction of carbon dioxide. 2018, 518, 34-40  Recent developments of metallic nanoparticle-graphene nanocatalysts. 2018, 94, 306-383  Photocatalytic synthesis of Schiff base compounds in the coupled system of aromatic alcohols and nitrobenzene using CdXZn1RS photocatalysts. 2018, 359, 151-160  Self-assembled hierarchical direct Z-scheme g-C3N4/ZnO microspheres with enhanced photocatalytic CO2 reduction performance. 2018, 441, 12-22	60 15 72 35 256

1167	Recent Progress on Photo-Electrocatalytic Reduction of Carbon Dioxide. 2018, 35, 1700371	59
1166	Plasmonic Control of Multi-Electron Transfer and C-C Coupling in Visible-Light-Driven CO Reduction on Au Nanoparticles. <b>2018</b> , 18, 2189-2194	238
1165	Robust and selective electrochemical reduction of CO2: the case of integrated 3D TiO2@MoS2 architectures and TiB bonding effects. <b>2018</b> , 6, 4706-4713	49
1164	Atomic-Scale Understanding of Catalyst Activation: Carboxylic Acid Solutions, but Not the Acid Itself, Increase the Reactivity of Anatase (001) Faceted Nanocatalysts. <b>2018</b> , 122, 4307-4314	11
1163	The effect of carbon nanotubes functionalization on the band-gap energy of TiO2-CNT nanocomposite. <b>2018</b> ,	1
1162	Gold nanoparticle-functionalized niobium oxide perovskites as photocatalysts for visible light-induced aromatic alcohol oxidations. <b>2018</b> , 96, 664-671	8
1161	Rational Design of Multifunctional Fe@IFe O @H-TiO Nanocomposites with Enhanced Magnetic and Photoconversion Effects for Wide Applications: From Photocatalysis to Imaging-Guided Photothermal Cancer Therapy. <b>2018</b> , 30, e1706747	79
1160	Scalable fabrication of SnO2/eo-GO nanocomposites for the photoreduction of CO2 to CH4. <b>2018</b> , 11, 4049-4061	17
1159	Which Future Route in the Methanol Synthesis? Photocatalytic Reduction of CO2, the New Challenge in the Solar Energy Exploitation. <b>2018</b> , 429-472	4
1158	Z-scheme g-C3N4@CsxWO3 heterostructure as smart window coating for UV isolating, Vis penetrating, NIR shielding and full spectrum photocatalytic decomposing VOCs. <b>2018</b> , 229, 218-226	124
1157	High-efficiency photocatalytic CO reduction in organic-aqueous system: a new insight into the role of water <b>2018</b> , 8, 3798-3802	12
1156	g-CN/NiAl-LDH 2D/2D Hybrid Heterojunction for High-Performance Photocatalytic Reduction of CO into Renewable Fuels. <b>2018</b> , 10, 2667-2678	298
1155	A bridged ruthenium dimer (Ru <b>R</b> u) for photoreduction of CO2 under visible light irradiation. <b>2018</b> , 61, 381-387	11
1154	Graphene-wrapped Pt/TiO2 photocatalysts with enhanced photogenerated charges separation and reactant adsorption for high selective photoreduction of CO2 to CH4. <b>2018</b> , 226, 360-372	164
1153	Zn Cd S tunable band structure-directing photocatalytic activity and selectivity of visible-light reduction of CO into liquid solar fuels. <b>2018</b> , 29, 064003	21
1152	Carbon-doped SnS nanostructure as a high-efficiency solar fuel catalyst under visible light. <b>2018</b> , 9, 169	219
1151	Reduced Graphene Oxide-Cadmium Sulfide Nanorods Decorated with Silver Nanoparticles for Efficient Photocatalytic Reduction Carbon Dioxide Under Visible Light. <b>2018</b> , 10, 1627-1634	55
1150	Cocatalysts in Semiconductor-based Photocatalytic CO Reduction: Achievements, Challenges, and Opportunities. <b>2018</b> , 30, 1704649	614

1149	Synthesis and characterization of Zn2GeO4/Mg-MOF-74 composites with enhanced photocatalytic activity for CO2 reduction. <b>2018</b> , 8, 1288-1295	64
1148	Promoting Charge Separation in Semiconductor Nanocrystal Superstructures for Enhanced Photocatalytic Activity. <b>2018</b> , 5, 1701694	25
1147	An Exceptionally Efficient Co-Co P@N, P-Codoped Carbon Hybrid Catalyst for Visible Light-Driven CO -to-CO Conversion. <b>2018</b> , 24, 8596-8602	16
1146	Photocatalytic conversion of CO2 over C3N4-based catalysts. <b>2018</b> , 316, 149-154	13
1145	Direct experimental evidence and low reduction potentials for the electrochemical reduction of CO2 on fluorine doped tin oxide semiconductor. <b>2018</b> , 820, 1-8	10
1144	Ultrathin WOID.33HO Nanotubes for CO Photoreduction to Acetate with High Selectivity. <b>2018</b> , 140, 6474-6482	148
1143	Iron Oxide Nanostructures for the Reduction of Bicarbonate to Solar Fuels. <b>2018</b> , 61, 601-609	8
1142	Heterogeneous catalysis: Powdered photocatalysts split carbon dioxide. <b>2018</b> , 2,	1
1141	The Photoelectrochemical Activity of Titanium Dioxide Nanosized Films in the Visible Spectral Region. <b>2018</b> , 54, 51-57	5
1140	Electrocatalytic Reduction of Carbon Dioxide on Nanosized Fluorine Doped Tin Oxide in the Solution of Extremely Low Supporting Electrolyte Concentration: Low Reduction Potentials. <b>2018</b> , 1, 1680-1687	10
1139	A novel hollow-hierarchical structured BiWO with enhanced photocatalytic activity for CO photoreduction. <b>2018</b> , 523, 151-158	69
1138	Highly efficient CuO loaded TiO2 nanotube photocatalyst for CO2 photoconversion. 2018, 221, 168-171	23
1137	Highly efficient CO2 reduction on ordered porous Cu electrode derived from Cu2O inverse opals. <b>2018</b> , 48, 93-100	34
1136	Insights into Elevated-Temperature Photocatalytic Reduction of CO2 by H2O. <b>2018</b> , 122, 8045-8057	26
1135	Enhanced CO2 photocatalytic reduction through simultaneously accelerated H2 evolution and CO2 hydrogenation in a twin photoreactor. <b>2018</b> , 24, 500-508	16
1134	BiOX (X = Cl, Br, I) photocatalytic nanomaterials: Applications for fuels and environmental management. <b>2018</b> , 254, 76-93	288
1133	Principles of Photochemical Activation Toward Artificial Photosynthesis and Organic Transformations. <b>2018</b> , 729-752	3
1132	Coupling photocatalytic CO2 reduction with benzyl alcohol oxidation to produce benzyl acetate over Cu2O/Cu. <b>2018</b> , 8, 2218-2223	27

1131	Facile microwave assisted synthesis of N-rich carbon quantum dots/dual-phase TiO2 heterostructured nanocomposites with high activity in CO2 photoreduction. <b>2018</b> , 231, 269-276	80
1130	An overview of the reaction conditions for an efficient photoconversion of CO2. <b>2018</b> , 34, 409-425	14
1129	g-C3N4 based composite photocatalysts for photocatalytic CO2 reduction. <b>2018</b> , 300, 160-172	176
1128	Electrodeposition of Cu-doped p-type ZnO nanorods; effect of Cu doping on structural, optical and photoelectrocatalytic property of ZnO nanostructure. <b>2018</b> , 114, 1-14	50
1127	A review on adsorption-enhanced photoreduction of carbon dioxide by nanocomposite materials. <b>2018</b> , 1, 6-31	42
1126	Nanoheterostructures of potassium tantalate and nickel oxide for photocatalytic reduction of carbon dioxide to methanol in isopropanol. <b>2018</b> , 512, 466-473	15
1125	Photocatalytic reduction of CO2 by employing ZnO/Ag1-xCux/CdS and related heterostructures. <b>2018</b> , 691, 28-32	18
1124	Comparative SIFT-MS, GCMS and FTIR analysis of methane fuel produced in biogas stations and in artificial photosynthesis over acidic anatase TiO2 and montmorillonite. <b>2018</b> , 348, 152-160	11
1123	Study on deactivation and reaction mechanism of Co thiolate complexes in photocatalytic hydrogen production system. <b>2018</b> , 42, 977-984	2
1122	Photocatalytic reduction of CO2 to CO over copper decorated g-C3N4 nanosheets with enhanced yield and selectivity. <b>2018</b> , 427, 1165-1173	97
1121	g-C3N4-Based Heterostructured Photocatalysts. <b>2018</b> , 8, 1701503	1245
1120	Light-Driven Carbon Dioxide Reduction Devices. <b>2018</b> , 259-280	2
1119	Highly efficient visible-light driven photocatalytic reduction of CO2 over g-C3N4 nanosheets/tetra(4-carboxyphenyl)porphyrin iron(III) chloride heterogeneous catalysts. <b>2018</b> , 221, 312-319	132
1118	ZnO2-promoted ZnO as an efficient photocatalyst for the photoreduction of carbon dioxide in the presence of water. <b>2018</b> , 103, 24-28	24
1117	Effect of solvents on photocatalytic reduction of CO2 mediated by cobalt complex. <b>2018</b> , 354, 181-186	14
1116	Sodium hexatitanate photocatalysts prepared by a flux method for reduction of carbon dioxide with water. <b>2018</b> , 303, 296-304	19
1115	The enhancement of CdS photocatalytic activity for water splitting via anti-photocorrosion by coating Ni2P shell and removing nascent formed oxygen with artificial gill. <b>2018</b> , 221, 243-257	270
1114	Positive shift in the potential of photo-electrochemical CO2 reduction to CO on Ag-loaded boron-doped diamond electrode by an electrochemical pre-treatment. <b>2018</b> , 48, 61-73	13

1113	Metal oxides as photo catalysts: Modified sodium tantalate as catalyst for photo reduction of carbon dioxide. <b>2018</b> , 451, 105-113	12
1112	Artificial Photosynthesis: Learning from Nature. <b>2018</b> , 2, 148-160	33
1111	Katalyse der Kohlenstoffdioxid-Photoreduktion an Nanoschichten: Grundlagen und Herausforderungen. <b>2018</b> , 130, 7734-7752	19
1110	SOFT X-RAY SPECTROSCOPY ON PHOTOCATALYSIS. <b>2018</b> , 343-360	
1109	Nanoparticles based on copper deposited on carbon spheres. Preparation, characterization and application for CO2 photo-electrochemical reduction. <b>2018</b> , 809, 80-87	7
1108	Modification of GaO by an Ag-Cr core-shell cocatalyst enhances photocatalytic CO evolution for the conversion of CO by HO. <b>2018</b> , 54, 1053-1056	35
1107	Catalysis of Carbon Dioxide Photoreduction on Nanosheets: Fundamentals and Challenges. <b>2018</b> , 57, 7610-7627	242
1106	A review on photocatalytic CO reduction using perovskite oxide nanomaterials. <b>2018</b> , 29, 052001	140
1105	Recent developments in the design of photoreactors for solar energy conversion from water splitting and CO2 reduction. <b>2018</b> , 550, 122-141	68
1104	Epigrammatic status and perspective of sequestration of carbon dioxide: Role of TiO2 as photocatalyst. <b>2018</b> , 159, 423-433	6
1103	Photocatalytic activity of erbium-doped CeO2 enhanced by reduced graphene Oxide/CuO cocatalyst for the reduction of CO2 to methanol. <b>2018</b> , 37, 655-662	11
1102	TiO2-based heterojunction photocatalysts for photocatalytic reduction of CO2 into solar fuels. <b>2018</b> , 6, 22411-22436	129
1101	C-O bond activation and splitting behaviours of CO on a 4H-SiC surface: a DFT study. <b>2018</b> , 20, 26846-26852	2
1100	Z-Scheme MoS/g-CN heterojunction for efficient visible light photocatalytic CO reduction. <b>2018</b> , 47, 15155-15	5163
1099	Ultrasmall C-TiO2⊠ nanoparticle/g-C3N4 composite for CO2 photoreduction with high efficiency and selectivity. <b>2018</b> , 6, 21596-21604	34
1098	Ag-Cu nanoparticles supported on N-doped TiO2 nanowire arrays for efficient photocatalytic CO2 reduction. <b>2018</b> , 31, 695-700	2
1097	. 2018,	9
1096	Requirements for efficient metal oxide photocatalysts for CO2 reduction. <b>2018</b> , 275-301	2

1095	Graphene-Based Nanocomposites for Efficient Photocatalytic Hydrogen Evolution: Insight into the Interface toward Separation of Photogenerated Charges. <b>2018</b> , 10, 43760-43767	35
1094	Turning Au Nanoclusters Catalytically Active for Visible-Light-Driven CO Reduction through Bridging Ligands. <b>2018</b> , 140, 16514-16520	134
1093	Photocatalytic CO2 Valorization by Using TiO2, ZrO2 and Graphitic Based Semiconductors. 2018,	
1092	Photoreduction of Carbon Dioxide to Methanol over Copper Based Zeolitic Imidazolate Framework-8: A New Generation Photocatalyst. <b>2018</b> , 8, 581	22
1091	3DOM-NiFe2O4 as an effective catalyst for turning CO2 and H2O into fuel (CH4). <b>2018</b> , 88, 489-496	2
1090	Energy band engineering of metal oxide for enhanced visible light absorption. 2018, 49-78	7
1089	Mechanistic View of the Main Current Issues in Photocatalytic CO Reduction. 2018, 9, 7192-7204	48
1088	In Situ-Fabricated 2D/2D Heterojunctions of Ultrathin SiC/Reduced Graphene Oxide Nanosheets for Efficient CO Photoreduction with High CH Selectivity. <b>2018</b> , 11, 4237-4245	30
1087	Fluorine Modified Boron Carbon Nitride Semiconductors for Improved Photocatalytic CO2 Reduction under Visible Light. <b>2018</b> , 10, 5270-5279	43
1086	Design, modification and application of semiconductor photocatalysts. <b>2018</b> , 93, 590-602	49
1085	Self-organized copper impregnation and doping in TiO2 with enhanced photocatalytic conversion of H2O and CO2 to fuel. <b>2018</b> , 43, 19468-19480	18
1084	Ultrathin-Film Titania Photocatalyst on Nanocavity for CO Reduction with Boosted Catalytic Efficiencies. <b>2018</b> , 2, 1800032	5
1083	Synergy between Defects, Photoexcited Electrons, and Supported Single Atom Catalysts for CO2 Reduction. <b>2018</b> , 8, 10464-10478	60
1082	Insight into the enhanced CO2 photocatalytic reduction performance over hollow-structured Bi-decorated g-C3N4 nanohybrid under visible-light irradiation. <b>2018</b> , 28, 126-136	49
1081	The effect of powder preparation method on the artificial photosynthesis activities of neodymium doped titania powders. <b>2018</b> , 43, 20162-20175	4
1080	Solar Fuels by Heterogeneous Photocatalysis: From Understanding Chemical Bases to Process Development. <b>2018</b> , 2, 42	8
1079	Enabling Visible-Light-Driven Selective CO2 Reduction by Doping Quantum Dots: Trapping Electrons and Suppressing H2 Evolution. <b>2018</b> , 130, 16685-16689	18
1078	Enabling Visible-Light-Driven Selective CO Reduction by Doping Quantum Dots: Trapping Electrons and Suppressing H Evolution. <b>2018</b> , 57, 16447-16451	153

1077	Visible-Light Driven Overall Conversion of CO and HO to CH and O on 3D-SiC@2D-MoS Heterostructure. <b>2018</b> , 140, 14595-14598	246
1076	Influence of composition grafit oxide, irradiation-time variation analyzes on reduced graphene oxide [copper oxide (rGO/CuO) composite toward photocatalytic conversion of CO2 to methanol. 2018,	
1075	2D Covalent Organic Frameworks as Intrinsic Photocatalysts for Visible Light-Driven CO Reduction. <b>2018</b> , 140, 14614-14618	263
1074	Carbon-nitride-based coreBhell nanomaterials: synthesis and applications. 2018, 29, 20280-20301	9
1073	Hydrothermally Synthesizing Nanospheres of Pd Loaded TiO2 for Photocatalytically Reducing CO2 in Isopropanol to Isopropyl Formate. <b>2018</b> , 33, 1046-1050	
1072	Heterostructured d-Ti C /TiO g-C N Nanocomposites with Enhanced Visible-Light Photocatalytic Hydrogen Production Activity. <b>2018</b> , 11, 4226-4236	84
1071	Hydroxyapatite decorated TiO2 as efficient photocatalyst for selective reduction of CO2 with H2O into CH4. <b>2018</b> , 43, 22329-22339	27
1070	Photoelectrochemical Reactors for CO2 Utilization. <b>2018</b> , 6, 15877-15894	41
1069	Facile synthesis of MnO2/TiO2 core-shell nanorods from aqueous solution and their photoelectrochemical behaviors. <b>2018</b> , 220, 383-394	2
1068	Optical properties of anatase TiO: synergy between transition metal doping and oxygen vacancies. <b>2018</b> , 24, 276	4
1067	The effects of subsurface Ov and Tiint of anatase (1 0 1) surface on CO2 conversion: A first-principles study. <b>2018</b> , 155, 424-430	6
1066	Visible-Light-Induced Photocatalytic Degradation of Textile Dyes over Plasmonic Silver-Modified TiO2. <b>2018</b> , 389-418	7
1065	Photocatalytic CO2 Reduction Using a Pristine Cu2ZnSnS4 Film Electrode under Visible Light Irradiation. <b>2018</b> , 122, 21695-21702	18
1064	Development of Rh-Doped Ga2O3 Photocatalysts for Reduction of CO2 by H2O as an Electron Donor at a More than 300 nm Wavelength. <b>2018</b> , 122, 21132-21139	11
1063	CO2 to Liquid Fuels: Photocatalytic Conversion in a Continuous Membrane Reactor. <b>2018</b> , 6, 8743-8753	41
1062	Robust Multimetallic Plasmonic CoreBatellite Nanodendrites: Highly Effective Visible-Light-Induced Colloidal CO2 Photoconversion System. <b>2018</b> , 6, 8604-8614	13
1061	Nano-designed semiconductors for electro- and photoelectro-catalytic conversion of carbon dioxide. <b>2018</b> , 47, 5423-5443	119
1060	Efficient photocatalysts of TiO2 nanocrystals-supported PtRu alloy nanoparticles for CO2 reduction with H2O: Synergistic effect of Pt-Ru. <b>2018</b> , 236, 445-457	91

1059	Hierarchically nanostructured porous TiO2(B) with superior photocatalytic CO2 reduction activity. <b>2018</b> , 61, 344-350	60
1058	Photocatalytic Conversion of Carbon Dioxide over A2BTa5O15 (A = Sr, Ba; B = K, Na) Using Ammonia as an Efficient Sacrificial Reagent. <b>2018</b> , 6, 8247-8255	7
1057	Carbon Dioxide as Building Block in the Synthesis of the Anti-Infective Agent Hexamine. 2018, 3, 7178-7183	
1056	C-, N-, S-, and F-Doped Anatase TiO2 (101) with Oxygen Vacancies: Photocatalysts Active in the Visible Region. <b>2018</b> , 2018, 1-12	14
1055	Morphology controlled synthesis of CeTiO4 using molten salts and enhanced photocatalytic activity for CO2 reduction. <b>2018</b> , 456, 360-368	9
1054	Reliable and computationally affordable prediction of the energy gap of (TiO) (10 ៤ 563) nanoparticles from density functional theory. <b>2018</b> , 20, 18907-18911	11
1053	Preparation of CdS/BiOCl/Bi2O3 double composite system for visible light active photocatalytic applications. <b>2018</b> , 364, 159-168	13
1052	Photocatalytic Reduction of CO2 to CH3OH Coupling with the Oxidation of Amine to Imine. <b>2018</b> , 148, 2382-2390	15
1051	Efficient Photocatalytic Reduction of CO2 Present in Seawater into Methanol over Cu/C-Co-Doped TiO2 Nanocatalyst Under UV and Natural Sunlight. <b>2018</b> , 229, 1	8
1050	Photoelectrochemical Reduction of CO 2. <b>2018</b> , 437-474	
1049	Titanium glycolate-derived TiO2 nanomaterials: Synthesis and applications. 2018, 29, 2289-2311	32
1048	Synthetic Mechanism Discovery of Monophase Cuprous Oxide for Record High Photoelectrochemical Conversion of CO to Methanol in Water. <b>2018</b> , 12, 8187-8196	24
1047	Haloid acid induced carbon nitride semiconductors for enhanced photocatalytic H2 evolution and reduction of CO2 under visible light. <b>2018</b> , 138, 465-474	29
1046	The photoelectrocatalytic CO2 reduction on TiO2@ZnO heterojunction by tuning the conduction band potential. <b>2018</b> , 285, 23-29	25
1045	Emerging Applications of Plasmons in Driving CO Reduction and N Fixation. <b>2018</b> , 30, e1802227	107
1044	The Electrochemical Conversion of Carbon Dioxide to Carbon Monoxide Over Nanomaterial Based Cathodic Systems: Measures to Take to Apply This Laboratory Process Industrially. <b>2018</b> , 83-131	1
1043	Graphene photocatalysts. <b>2018</b> , 79-101	4
1042	A review on modification of facet-engineered TiO2 for photocatalytic CO2 reduction. <b>2018</b> , 36, 24-47	87

1041	Highly efficient visible-light driven solar-fuel production over tetra(4-carboxyphenyl)porphyrin iron(III) chloride using CdS/Bi2S3 heterostructure as photosensitizer. <b>2018</b> , 238, 656-663	53
1040	On the selectivity of CO2 photoreduction towards CH4 using Pt/TiO2 catalysts supported on mesoporous silica. <b>2018</b> , 239, 68-76	69
1039	Azine-based covalent organic frameworks as metal-free visible light photocatalysts for CO2 reduction with H2O. <b>2018</b> , 239, 46-51	125
1038	Sustainable Carbon Dioxide Photoreduction by a Cooperative Effect of Reactor Design and Titania Metal Promotion. <b>2018</b> , 8, 41	15
1037	g-C3N4-Based Nanomaterials for Visible Light-Driven Photocatalysis. <b>2018</b> , 8, 74	141
1036	The Pros and Cons of Polydopamine-Sensitized Titanium Oxide for the Photoreduction of CO2. <b>2018</b> , 8, 215	10
1035	Direct Z-scheme PDA-modified ZnO hierarchical microspheres with enhanced photocatalytic CO2 reduction performance. <b>2018</b> , 457, 1096-1102	46
1034	TiO@PEI-Grafted-MWCNTs Hybrids Nanocomposites Catalysts for COIPhotoreduction. 2018, 11,	7
1033	Origin and Perspectives of the Photochemical Activity of Nanoporous Carbons. <b>2018</b> , 5, 1800293	37
1032	Review on fabrication of graphitic carbon nitride based efficient nanocomposites for photodegradation of aqueous phase organic pollutants. <b>2018</b> , 67, 28-51	204
1031	Lattice Engineering on Metal Cocatalysts for Enhanced Photocatalytic Reduction of CO into CH. <b>2018</b> , 11, 3524-3533	36
1030	Converting CO into fuels by graphitic carbon nitride-based photocatalysts. <b>2018</b> , 29, 412001	40
1029	Mechanisms for [[Formula: see text] and [OH Production on Flowerlike BiVO Photocatalysis Based on Electron Spin Resonance. <b>2018</b> , 6, 64	32
1028	A critical review on TiO2 based photocatalytic CO2 reduction system: Strategies to improve efficiency. <b>2018</b> , 26, 98-122	179
1027	Contribution of thin films of ZrO2 on TiO2 nanotubes electrodes applied in the photoelectrocatalytic CO2 conversion. <b>2018</b> , 25, 254-263	20
1026	Order engineering on the lattice of intermetallic PdCu co-catalysts for boosting the photocatalytic conversion of CO2 into CH4. <b>2018</b> , 6, 17444-17456	27
1025	Recent progress on band and surface engineering of graphitic carbon nitride for artificial photosynthesis. <b>2018</b> , 462, 693-712	35
1024	Construction of Bi2WO6/RGO/g-C3N4 2D/2D/2D hybrid Z-scheme heterojunctions with large interfacial contact area for efficient charge separation and high-performance photoreduction of CO2 and H2O into solar fuels. <b>2018</b> , 239, 586-598	189

Reinforced photocatalytic reduction of CO2 to fuel by efficient S-TiO2: Significance of sulfur doping. <b>2018</b> , 43, 17682-17695	26
Modification of porphyrin/dipyridine metal complexes on the surface of TiO2 nanotubes with enhanced photocatalytic activity for photoreduction of CO2 into methanol. <b>2018</b> , 33, 2612-2620	18
Enhanced Solar-Driven Gaseous CO2 Conversion by CsPbBr3 Nanocrystal/Pd Nanosheet Schottky-Junction Photocatalyst. <b>2018</b> , 1, 5083-5089	87
Synergistic interplay of Zn and Rh-Cr promoters on GaO based photocatalysts for water splitting. <b>2018</b> , 20, 23515-23521	3
Carbothermal activation synthesis of 3D porous g-C3N4/carbon nanosheets composite with superior performance for CO2 photoreduction. <b>2018</b> , 239, 196-203	92
Watching Visible Light-Driven CO Reduction on a Plasmonic Nanoparticle Catalyst. <b>2018</b> , 12, 8330-8340	104
Interactions of Molecular Titanium Oxides TiO ( $x$ = 1-3) with Carbon Dioxide in Cluster Anions. <b>2018</b> , 122, 6909-6917	11
Photo-generated dinuclear {Eu(II)} active sites for selective CO reduction in a photosensitizing metal-organic framework. <b>2018</b> , 9, 3353	118
A SiDBi bridge assembled from 3-mercaptopropyltrimethoxysilane and silicon carbide for effective charge transfer in photocatalysis. <b>2018</b> , 53, 12432-12440	8
Size-Dependent Visible Light Photocatalytic Performance of Cu2O Nanocubes. <b>2018</b> , 10, 3554-3563	33
Sunfuels from CO2 exhaust emissions: Insights into the role of photoreactor configuration by the study in laboratory and industrial environment. <b>2018</b> , 26, 445-453	9
Metal-Organic-Framework-Based Catalysts for Photoreduction of CO. <b>2018</b> , 30, e1705512	265
Photochemical Reduction of CO2. <b>2018</b> , 373-436	
Modeling of 2-D hydrogen-edge capped defected & boron-doped defected graphene sheets for the adsorption of CO2, SO2 towards energy harvesting applications. <b>2019</b> , 463, 596-609	25
Photocatalysis for Hydrogen Production and CO2 Reduction: The Case of Copper-Catalysts. <b>2019</b> , 11, 368-382	82
Photo-Functional Applications of Semiconductor Nanomaterials. <b>2019</b> , 135-164	
Simultaneous SO2 removal and CO2 reduction in a nano-BiVO4 Cu-In nanoalloy photoelectrochemical cell. <b>2019</b> , 355, 11-21	26
Multifunctional photocatalysts of Pt-decorated 3DOM perovskite-type SrTiO3 with enhanced CO2 adsorption and photoelectron enrichment for selective CO2 reduction with H2O to CH4. <b>2019</b> , 377, 309-321	74
	doping. 2018, 43, 17682-17695  Modification of porphyrin/dipyridine metal complexes on the surface of TiO2 nanotubes with enhanced photocatalytic activity for photoreduction of CO2 into methanol. 2018, 33, 2612-2620  Enhanced Solar-Driven Gaseous CO2 Conversion by CSPbBr3 Nanocrystal/Pd Nanosheet Schottky-Junction Photocatalyst. 2018, 1, 5083-5089  Synergistic interplay of Zn and Rh-Cr promoters on GaO based photocatalysts for water splitting. 2018, 20, 23515-23521  Carbothermal activation synthesis of 3D porous g-C3N4/carbon nanosheets composite with superior performance for CO2 photoreduction. 2018, 239, 196-203  Watching Visible Light-Driven CO Reduction on a Plasmonic Nanoparticle Catalyst. 2018, 12, 8330-8340  Interactions of Molecular Titanium Oxides TiO (x = 1-3) with Carbon Dioxide in Cluster Anions. 2018, 122, 6909-6917  Photo-generated dinuclear (Eu(III)) active sites for selective CO reduction in a photosensitizing metal-organic framework. 2018, 9, 3353  A SiDSi bridge assembled from 3-mercaptopropyltrimethoxysilane and silicon carbide for effective charge transfer in photocatalysis. 2018, 53, 12432-12440  Size-Dependent Visible Light Photocatalytic Performance of Cu2O Nanocubes. 2018, 10, 3554-3563  Sunfuels from CO2 exhaust emissions: Insights into the role of photoreactor configuration by the study in laboratory and industrial environment. 2018, 26, 445-453  Metal-Organic-Framework-Based Catalysts for Photoreduction of CO. 2018, 30, e1705512  Photochemical Reduction of CO2. 2018, 373-436  Modeling of 2-D hydrogen-edge capped defected & boron-doped defected graphene sheets for the adsorption of CO2, SO2 towards energy harvesting applications. 2019, 463, 596-609  Photocatalysis for Hydrogen Production and CO2 Reduction: The Case of Copper-Catalysts. 2019, 11, 368-382  Photo-Functional Applications of Semiconductor Nanomaterials. 2019, 135-164  Simultaneous SO2 removal and CO2 reduction in a nano-BiVO4 Cu-In nanoalloy photoelectrochemical cell. 2019, 355, 11-21

1005	Surface modified C, O co-doped polymeric g-C3N4 as an efficient photocatalyst for visible light assisted CO2 reduction and H2O2 production. <b>2019</b> , 259, 118054	82
1004	Diamond surface functionalization: from gemstone to photoelectrochemical applications. <b>2019</b> , 7, 10134-1010	<b>55</b> 0
1003	Modeling of Si-B-N Sheets and Derivatives as a Potential Sorbent Material for the Adsorption of Li Ion and CO Gas Molecule. <b>2019</b> , 4, 13808-13823	6
1002	Rational Design of Novel Catalysts with Atomic Layer Deposition for the Reduction of Carbon Dioxide. <b>2019</b> , 9, 1900889	33
1001	Fundamentals of TiO Photocatalysis: Concepts, Mechanisms, and Challenges. <b>2019</b> , 31, e1901997	403
1000	Photoelectrocatalytic Oxidation of Formic Acid in the Visible Spectral Region on Films of Nanocrystalline Titanium Oxide Doped by Bismuth. <b>2019</b> , 55, 637-645	3
999	Excitation-current-density and temperature dependences of deep UV cathodoluminescence in rocksalt-structured MgxZn1-xO films. <b>2019</b> , 125, 225108	4
998	A Covalent Triazine-Based Framework Consisting of Donor-Acceptor Dyads for Visible-Light-Driven Photocatalytic CO Reduction. <b>2019</b> , 12, 4493-4499	55
997	Synthesis of Cu/TiO2 catalysts by reactive magnetron sputtering deposition and its application for photocatalytic reduction of CO2 and H2O to CH4. <b>2019</b> , 45, 22961-22971	21
996	In situ synthesis of Cu3P/g-C3N4 heterojunction with superior photocatalytic hydrogen evolution. <b>2019</b> , 52, 465106	12
995	Review on photocatalytic conversion of carbon dioxide to value-added compounds and renewable fuels by graphitic carbon nitride-based photocatalysts. <b>2019</b> , 61, 595-628	291
994	One-pot sonochemical synthesis of 3D flower-like hierarchical AgCl microsphere with enhanced photocatalytic activity. <b>2019</b> , 26, 26883-26892	8
993	Photoelectrochemical Activity of Nanosized Titania, Doped with Bismuth and Lead, in Visible Light Region. <b>2019</b> , 55, 55-64	3
992	Photocatalytic conversion of CO2 using earth-abundant catalysts: A review on mechanism and catalytic performance. <b>2019</b> , 113, 109246	76
991	sp2/sp3 Framework from Diamond Nanocrystals: A Key Bridge of Carbonaceous Structure to Carbocatalysis. <b>2019</b> , 9, 7494-7519	50
990	Active Materials for Photocatalytic Reduction of Carbon Dioxide. <b>2019</b> , 343-372	1
989	Glucose precursor carbon-doped TiO2 heterojunctions for enhanced efficiency in photocatalytic reduction of carbon dioxide to methanol. <b>2019</b> , 33, 372-383	13
988	Photocatalytic Activation and Reduction of CO2 to CH4 over Single Phase Nano Cu3SnS4: A Combined Experimental and Theoretical Study. <b>2019</b> , 2, 5677-5685	31

987	Preparation of Zn(FexGa1-x)2O4 Solid Solutions as Photocatalyst for CO2 Reduction under Simulated Solar-Light Irradiation. <b>2019</b> , 2019, 3476-3480	4
986	Efficient and Selective CO2 Reduction Integrated with Organic Synthesis by Solar Energy. <b>2019</b> , 5, 2605-2616	102
985	Control of Selectivity through a New Hydrogen-Transfer Mechanism in Photocatalytic Reduction Reactions: Electronically Relaxed Neutral H and the Role of Electron-Phonon Coupling. <b>2019</b> , 10, 4603-4608	O
984	Simultaneous Phosphorylation and Bi Modification of BiOBr for Promoting Photocatalytic CO2 Reduction. <b>2019</b> , 7, 14953-14961	36
983	Rational design of photoelectrodes for photoelectrochemical water splitting and CO2 reduction. <b>2019</b> , 14, 1	10
982	Ultra-fine size-controlled Pt (111) nanoparticles supported on mesoporous titania as an efficient photoelectrocatalyst for hydrogen evolution. <b>2019</b> , 495, 143525	6
981	N-doped C dot/CoAl-layered double hydroxide/g-C3N4 hybrid composites for efficient and selective solar-driven conversion of CO2 into CH4. <b>2019</b> , 176, 107212	47
980	Porous boron nitride for combined CO2 capture and photoreduction. <b>2019</b> , 7, 23931-23940	33
979	The Chemistry of CO2 and TiO2. <b>2019</b> ,	2
978	Plasmonic [email/protected]2 CoreBhell Nanoparticles for Enhanced CO2 Photoconversion to CH4. <b>2019</b> , 7, 18955-18964	49
977	Study of PdO species on surface of TiO2 for photoreduction of CO2 into CH4. <b>2019</b> , 384, 112032	8
976	An overview of photocatalysis facilitated by 2D heterojunctions. <b>2019</b> , 30, 502002	37
975	. 2019,	2
974	Polyoxometalate-based materials for sustainable and clean energy conversion and storage. <b>2019</b> , 1, 100021	109
973	Selectivity Modulated by Surface Ligands on Cu2O/TiO2 Catalysts for Gas-Phase Photocatalytic Reduction of Carbon Dioxide. <b>2019</b> , 123, 29184-29191	14
972	A Highly Efficient Composite Catalyst Constructed From NH-MIL-125(Ti) and Reduced Graphene Oxide for CO Photoreduction. <b>2019</b> , 7, 789	21
971	A mini-review on the synthesis and structural modification of g-C3N4-based materials, and their applications in solar energy conversion and environmental remediation. <b>2019</b> , 3, 2907-2925	78
970	B80 Fullerene: A Promising Metal-Free Photocatalyst for Efficient Conversion of CO2 to HCOOH. <b>2019</b> , 123, 24193-24199	10

969	A conducting polymer coated perovskite supported on glass fiber substrate for gas-phase CO2 conversion to methane. <b>2019</b> , 158, 534-540	2
968	Enhanced photocatalytic reduction activity of BiOCl nanosheets loaded on Bi2O3. 2019, 30, 17956-17962	4
967	Enhanced CH4 selectivity in CO2 photocatalytic reduction over carbon quantum dots decorated and oxygen doping g-C3N4. <b>2019</b> , 12, 2749-2759	63
966	Photocatalytic coupling of methane and CO2 into C2-hydrocarbons over Zn doped g-C3N4 catalysts. <b>2019</b> , 498, 143861	28
965	Study of the photocatalytic performance and carrier migration of reduced graphene oxide-modified infrared-responsive photocatalyst NaYF4:Yb3+, Er3+@BiOCl-rGO. <b>2019</b> , 96, 109312	7
964	Recent trends in photocatalytic materials for reduction of carbon dioxide to methanol. <b>2019</b> , 116, 109389	37
963	Covalent Organic Frameworks for the Capture, Fixation, or Reduction of CO2. <b>2019</b> , 7,	55
962	In situ hydrothermal etching fabrication of CaTiO3 on TiO2 nanosheets with heterojunction effects to enhance CO2 adsorption and photocatalytic reduction. <b>2019</b> , 9, 336-346	33
961	Photo-induced Au <b>P</b> d alloying at TiO2 {101} facets enables robust CO2 photocatalytic reduction into hydrocarbon fuels. <b>2019</b> , 7, 1334-1340	51
960	Recent progress in visible light photocatalytic conversion of carbon dioxide. <b>2019</b> , 7, 865-887	131
959	From CO methanation to ambitious long-chain hydrocarbons: alternative fuels paving the path to sustainability. <b>2019</b> , 48, 205-259	131
958	Synthesis of CdZnS photocatalysts for gas-phase CO reduction under visible light. <b>2019</b> , 18, 871-877	22
957	Photocatalytic CO2 reduction by H2O: insights from modeling electronically relaxed mechanisms. <b>2019</b> , 9, 1048-1059	17
956	Plasmon-Assisted Photothermal Catalysis of Low-Pressure CO2 Hydrogenation to Methanol over Pd/ZnO Catalyst. <b>2019</b> , 11, 1598-1601	33
955	Defects Promote Ultrafast Charge Separation in Graphitic Carbon Nitride for Enhanced Visible-Light-Driven CO Reduction Activity. <b>2019</b> , 25, 5028-5035	62
954	SrCO3-modified brookite/anatase TiO2 heterophase junctions with enhanced activity and selectivity of CO2 photoreduction to CH4. <b>2019</b> , 476, 937-947	20
953	TiO2Surface Engineering to Improve Nanostability: The Role of Interface Segregation. <b>2019</b> , 123, 4949-4960	14
952	Insights into the role of CuO in the CO photoreduction process. <b>2019</b> , 9, 1316	31

951	Effect of Cr Species on Photocatalytic Stability during the Conversion of CO2 by H2O. <b>2019</b> , 123, 2894-2899	4
950	The functionality of surface hydroxyls on selective CH generation from photoreduction of CO over SiC nanosheets. <b>2019</b> , 55, 1572-1575	13
949	Hetero-metallic active sites coupled with strongly reductive polyoxometalate for selective photocatalytic CO-to-CH conversion in water. <b>2019</b> , 10, 185-190	59
948	Recent advances in 3D g-C3N4 composite photocatalysts for photocatalytic water splitting, degradation of pollutants and CO2 reduction. <b>2019</b> , 802, 196-209	151
947	Artificial photosynthesis - concluding remarks. <b>2019</b> , 215, 439-451	10
946	Hydrophobic Polyoxometalate-Based Metal-Organic Framework for Efficient CO Photoconversion. <b>2019</b> , 11, 25790-25795	49
945	Role of Bicarbonate Ions in Aqueous Solution as a Carbon Source for Photocatalytic Conversion of CO2 into CO. <b>2019</b> , 2, 5397-5405	9
944	Judging the feasibility of TiO as photocatalyst for chemical energy conversion by quantitative reactivity determinants. <b>2019</b> , 21, 13144-13150	11
943	Photocatalytic conversion of carbon dioxide: From products to design the catalysts. <b>2019</b> , 34, 63-73	40
942	Novel ZnFe2O4/WO3, a highly efficient visible-light photocatalytic system operated by a Z-scheme mechanism. <b>2019</b> , 256, 117856	21
941	Selective photocatalytic CO reduction on copper-titanium dioxide: a study of the relationship between CO production and H suppression. <b>2019</b> , 55, 8068-8071	30
940	Polyoxometalate-Based Catalysts for CO Conversion. <b>2019</b> , 24,	17
939	Synergistic effect of N-Ho on photocatalytic CO2 reduction for N/Ho co-doped TiO2 nanorods. <b>2019</b> , 118, 110502	9
938	An overview of semiconductors/layered double hydroxides composites: Properties, synthesis, photocatalytic and photoelectrochemical applications. <b>2019</b> , 289, 111114	49
937	Construction of spindle structured CeO2 modified with rod-like attapulgite as a high-performance photocatalyst for CO2 reduction. <b>2019</b> , 9, 3788-3799	11
936	Improved CO2 photocatalytic reduction using a novel 3-component heterojunction. <b>2019</b> , 62, 426-433	37
935	Interaction between InP and SnO2 on TiO2 nanotubes for photoelectrocatalytic reduction of CO2. <b>2019</b> , 575, 329-335	5
934	Design of atomically dispersed catalytic sites for photocatalytic CO reduction. <b>2019</b> , 11, 11064-11070	44

933	Critical Aspects and Recent Advances in Structural Engineering of Photocatalysts for Sunlight-Driven Photocatalytic Reduction of CO2 into Fuels. <b>2019</b> , 29, 1901825	173
932	Photocatalytic reduction of carbon dioxide by titanium oxide-based semiconductors to produce fuels. <b>2019</b> , 13, 207-220	13
931	Tuning the density distribution of deep localized states of TiO2 nanotube arrays through decoration with Pt and Pt@DLC. <b>2019</b> , 380, 111858	3
930	Realization of red shift of absorption spectra using optical near-field effect. <b>2019</b> , 30, 34LT02	1
929	Photoconversion of carbon dioxide into fuels using semiconductors. <b>2019</b> , 33, 72-82	14
928	An overview on nitride and nitrogen-doped photocatalysts for energy and environmental applications. <b>2019</b> , 172, 704-723	41
927	Photophysical and Catalytic Properties of Silica Supported Early Transition Metal Oxides Relevant for Photocatalytic Applications. <b>2019</b> , 149, 2291-2306	2
926	Boosting CO2 photoreduction activity by large Fresnel lens concentrated solar light. <b>2019</b> , 125, 48-51	8
925	Hydrogenated nanotubes/nanowires assembled from TiO2 nanoflakes with exposed {111} facets: excellent photo-catalytic CO2 reduction activity and charge separation mechanism between (111) and () polar surfaces. <b>2019</b> , 7, 14761-14775	26
924	Hierarchical Nanostructured Photocatalysts for CO2 Photoreduction. <b>2019</b> , 9, 370	34
923	Emerging approach in semiconductor photocatalysis: Towards 3D architectures for efficient solar fuels generation in semi-artificial photosynthetic systems. <b>2019</b> , 39, 142-160	27
922	Thermally oxidized CdS as a photoactive material. <b>2019</b> , 43, 8892-8902	8
921	From molecular metal complex to metal-organic framework: The CO2 reduction photocatalysts with clear and tunable structure. <b>2019</b> , 390, 86-126	111
920	Material design at nano and atomic scale for electrocatalytic CO2 reduction. <b>2019</b> , 1, 60-69	41
919	A Covalent Organic Framework Bearing Single Ni Sites as a Synergistic Photocatalyst for Selective Photoreduction of CO to CO. <b>2019</b> , 141, 7615-7621	289
918	The MoS2/TiO2 heterojunction composites with enhanced activity for CO2 photocatalytic reduction under visible light irradiation. <b>2019</b> , 570, 306-316	40
917	Exploitation of Nanoparticles as Photocatalysts for Clean and Environmental Applications. 2019, 279-319	1
916	Solid state synthesis of cadmium doped ZnS with excellent photocatalytic activity and enhanced visible light emission. <b>2019</b> , 30, 7916-7927	7

## (2019-2019)

915	The effect of excitation wavelength on the photodeposition of Pt on polyhedron BiVO4 with exposing {010} and {110} facets for photocatalytic performance. <b>2019</b> , 123, 100-104	6
914	Catalysts in electro-, photo- and photoelectrocatalytic CO2 reduction reactions. <b>2019</b> , 40, 117-149	49
913	Photocatalytic CO Conversion of MWO Directly from the Air with High Selectivity: Insight into Full Spectrum-Induced Reaction Mechanism. <b>2019</b> , 141, 5267-5274	146
912	Titanium-Dioxide-Based Visible-Light-Sensitive Photocatalysis: Mechanistic Insight and Applications. <b>2019</b> , 9, 201	47
911	Photoresponsive nanostructure assisted green synthesis of organics and polymers. <b>2019</b> , 249, 172-210	25
910	Controlled addition of Cu/Zn in hierarchical CuO/ZnO p-n heterojunction photocatalyst for high photoreduction of CO2 to MeOH. <b>2019</b> , 31, 207-214	47
909	Catalytic Properties of Selected Transition Metal Oxides@omputational Studies. 2019, 345-408	1
908	General Review on the Components and Parameters of Photoelectrochemical System for CO2 Reduction with in Situ Analysis. <b>2019</b> , 7, 7431-7455	47
907	Photo-Reduction of COIby VIS Light on Polythiophene-ZSM-5 Zeolite Hybrid Photo-Catalyst. <b>2019</b> , 24,	4
906	Novelty in Designing of Photocatalysts for Water Splitting and CO2 Reduction. <b>2019</b> , 41-65	
905	Photocatalytic CO2 reduction activity of Z-scheme CdS/CdWO4 catalysts constructed by surface charge directed selective deposition of CdS. <b>2019</b> , 483, 442-452	30
904	A Novel Ag2O/FeIIiO2 Photocatalyst for CO2 Conversion into Methane Under Visible Light. <b>2019</b> , 29, 1288-1296	10
903	Reaction Selectivity for Plasmon-Driven Carbon Dioxide Reduction on Silver Clusters: A Theoretical Prediction. <b>2019</b> , 123, 11101-11108	17
902	Synthesis and optimization of the trimesic acid modified polymeric carbon nitride for enhanced photocatalytic reduction of CO. <b>2019</b> , 548, 197-205	43
901	Nanophotocatalysis and Environmental Applications. 2019,	3
900	Z-Scheme Photocatalysts for the Reduction of Carbon Dioxide: Recent Advances and Perspectives. <b>2019</b> , 67-102	2
899	Low-temperature CO oxidation at persistent low-valent Cu nanoparticles on TiO2 aerogels. <b>2019</b> , 252, 205-213	32
898	A review of nanostructured non-titania photocatalysts and hole scavenging agents for CO2 photoreduction processes. <b>2019</b> , 7, 9368-9385	29

897	Enhanced photocatalytic reduction of CO2 using CdS/Mn2O3 nanocomposite photocatalysts on porous anodic alumina support with solar concentrators. <b>2019</b> , 139, 915-923	15
896	Oxygen Vacancy Engineering of Bi O Cl for Boosted Photocatalytic CO Conversion. <b>2019</b> , 12, 2740-2747	48
895	Preparation and properties of a new porous ceramic material used in clean energy field. <b>2019</b> , 35, 1255-1260	2
894	Ultrathin SiC Nanosheets with High Reduction Potential for Improved CH4 Generation from Photocatalytic Reduction of CO2. <b>2019</b> , 4, 2211-2217	10
893	Visible light photocatalytic conversion of CO2 in aqueous solution using 2D-structured carbon-based catalyst-coated <b>#</b> AgI nanocomposite. <b>2019</b> , 54, 7798-7810	5
892	Metal (oxide) modified (M= Pd, Ag, Au and Cu) H2SrTa2O7 for photocatalytic CO2 reduction with H2O: The effect of cocatalysts on promoting activity toward CO and H2 evolution. <b>2019</b> , 44, 4123-4132	37
891	Recent Progress of Carbon Dioxide Conversion into Renewable Fuels and Chemicals Using Nanomaterials. <b>2019</b> , 271-293	3
890	Enhancing the photocatalytic reduction of CO2 with undoped and Cu-doped TiO2 nanofibers synthesized in supercritical medium. <b>2019</b> , 147, 70-80	10
889	Rhenium-Metalated Polypyridine-Based Porous Polycarbazoles for Visible-Light CO2 Photoreduction. <b>2019</b> , 9, 3959-3968	76
888	Graphene and its Hybrids for Photocatalysis. <b>2019</b> , 2, 79-96	1
887	Quantification of the Photocatalytic Self-Cleaning Ability of Non-Transparent Materials. 2019, 12,	7
886	Nanostructured Materials for Energy Related Applications. <b>2019</b> ,	5
885	The regulation of reaction processes and rate-limiting steps for efficient photocatalytic CO2 reduction into methane over the tailored facets of TiO2. <b>2019</b> , 9, 1451-1456	4
884	Solid-Gas Phase Photo-Catalytic Behaviour of Rutile and TiO (1 2019, 12,	6
883	Design of doped cesium lead halide perovskite as a photo-catalytic CO2 reduction catalyst. <b>2019</b> , 7, 6911-6919	939
882	Toward ideal carbon dioxide functionalization. <b>2019</b> , 10, 3905-3926	91
881	Artificial Z-scheme photocatalytic system: What have been done and where to go?. <b>2019</b> , 385, 44-80	169
880	Cocatalysts for Selective Photoreduction of CO into Solar Fuels. <b>2019</b> , 119, 3962-4179	965

## (2019-2019)

879	BMIMBF4 Mediated Electrochemical CO2 Reduction to CO Is a Reverse Reaction of CO Oxidation in AirExperimental Evidence. <b>2019</b> , 123, 30198-30212	3
878	Reduction of carbon dioxide with mesoporous SnO2 nanoparticles as active photocatalysts under visible light in water. <b>2019</b> , 9, 6566-6569	14
877	Triphenylamine based conjugated microporous polymers for selective photoreduction of CO2 to CO under visible light. <b>2019</b> , 21, 6606-6610	32
876	Highly selective conversion of CO to CH on graphene modified chlorophyll Cu through multi-electron process for artificial photosynthesis. <b>2019</b> , 11, 22980-22988	13
875	Computational Simulation of Trapped Charge Carriers in TiO2 and Their Impacts on Photocatalytic Water Splitting. <b>2019</b> , 67-100	1
874	In Situ Infrared Observation of a Photo-Decomposition Process of Organic Contaminants on a TiO2 Nanotube Film Surface. <b>2019</b> , 166, H842-H848	2
873	Surface strategies for catalytic CO reduction: from two-dimensional materials to nanoclusters to single atoms. <b>2019</b> , 48, 5310-5349	365
872	Photocatalytic Reactions on Transition Metal-Oxide Single Site Heterogeneous Catalysts Constructed Within Silica-Networks of MCM-41. <b>2019</b> , 105-120	
871	STM and DFT studies of CO2 adsorption on O-Cu(100) surface. <b>2019</b> , 679, 50-55	6
870	Efficient utilization of photogenerated electrons and holes for photocatalytic redox reactions using visible light-driven Au/ZnInS hybrid. <b>2019</b> , 367, 277-285	58
869	Two-step catalytic dehydrogenation of formic acid to CO2 via formaldehyde. <b>2019</b> , 44, 1534-1543	3
868	Formation of Methane and (Per)Chlorates on Mars. <b>2019</b> , 3, 221-232	18
867	Photoelectrochemical Hydrogen Evolution Driven by Visible-to-Ultraviolet Photon Upconversion. <b>2019</b> , 2, 207-211	26
866	Theoretical Insights into Heterogeneous (Photo)electrochemical CO Reduction. <b>2019</b> , 119, 6631-6669	238
865	Polydopamine and Barbituric Acid Co-Modified Carbon Nitride Nanospheres for Highly Active and Selective Photocatalytic CO2 Reduction. <b>2019</b> , 2019, 2058-2064	10
864	Construction of a Two-Dimensional Composite Derived from TiO2 and SnS2 for Enhanced Photocatalytic Reduction of CO2 into CH4. <b>2019</b> , 7, 650-659	82
863	Improved photocatalytic reduction of Cr(VI) by molybdenum disulfide modified with conjugated polyvinyl alcohol. <b>2019</b> , 359, 1205-1214	28
862	Enhanced activity of 暇a2O3 by substitution with transition metal for CO2 photoreduction under visible light irradiation. <b>2019</b> , 120, 23-27	9

861	Recent advances in emerging single atom confined two-dimensional materials for water splitting applications. <b>2019</b> , 11, 1-23	137
860	Selective and Low Overpotential Electrochemical CO2 Reduction to Formate on CuS Decorated CuO Heterostructure. <b>2019</b> , 149, 860-869	17
859	Monolithic g-C3N4/reduced graphene oxide aerogel with in situ embedding of Pd nanoparticles for hydrogenation of CO2 to CH4. <b>2019</b> , 475, 953-960	50
858	Hydrogenated Titanium Oxide Decorated Upconversion Nanoparticles: Facile Laser Modified Synthesis and 808 nm Near-Infrared Light Triggered Phototherapy. <b>2019</b> , 31, 774-784	68
857	Enhanced Bio-Electrochemical Reduction of Carbon Dioxide by Using Neutral Red as a Redox Mediator. <b>2019</b> , 20, 1196-1205	19
856	Noble-metal-free molybdenum phosphide co-catalyst loaded graphitic carbon nitride for efficient photocatalysis under simulated irradiation. <b>2019</b> , 370, 79-87	50
855	Creating Well-Defined Hexabenzocoronene in Zirconium Metal-Organic Framework by Postsynthetic Annulation. <b>2019</b> , 141, 2054-2060	83
854	Recent Improvements in the Production of Solar Fuels: From CO2 Reduction to Water Splitting and Artificial Photosynthesis. <b>2019</b> , 92, 178-192	132
853	Direct Donation of Protons from H2O to CO2 in Artificial Photosynthesis on the Anatase TiO2(101) Surface. <b>2019</b> , 123, 3019-3023	7
852	Zinc rhodium oxide and its possibility as a constituent photocatalyst for carbon dioxide reduction using water as an electron source. <b>2019</b> , 335, 402-408	1
851	Mechanism of CO2 Photocatalytic Reduction to Methane and Methanol on Defected Anatase TiO2 (101): A Density Functional Theory Study. <b>2019</b> , 123, 3505-3511	36
850	Recent advances in TiO2 nanoarrays/graphene for water treatment and energy conversion/storage. <b>2019</b> , 62, 325-340	12
849	In Situ Irradiated X-Ray Photoelectron Spectroscopy Investigation on a Direct Z-Scheme TiO /CdS Composite Film Photocatalyst. <b>2019</b> , 31, e1802981	462
848	Perovskite-type CsPbBr3 quantum dots/UiO-66(NH2) nanojunction as efficient visible-light-driven photocatalyst for CO2 reduction. <b>2019</b> , 358, 1287-1295	171
847	Visible light activated photocatalytic behaviour of Eu (III) modified g-C3N4 for CO2 reduction and H2 evolution. <b>2019</b> , 467-468, 206-212	48
846	Z-Scheme Photocatalytic CO Reduction on a Heterostructure of Oxygen-Defective ZnO/Reduced Graphene Oxide/UiO-66-NH under Visible Light. <b>2019</b> , 11, 550-562	120
845	Role of Solar Energy Applications for Environmental Sustainability. <b>2019</b> , 341-374	1
844	Effect of Thickness of Chromium Hydroxide Layer on Ag Cocatalyst Surface for Highly Selective Photocatalytic Conversion of CO2 by H2O. <b>2019</b> , 7, 2083-2090	15

# (2020-2019)

843	Fabrication of CdS hierarchical multi-cavity hollow particles for efficient visible light CO2 reduction. <b>2019</b> , 12, 164-168	156
842	Recent Developments in Graphitic Carbon Nitride Based Hydrogels as Photocatalysts. <b>2019</b> , 12, 1794-1806	70
841	A computational study on linear and bent adsorption of CO2 on different surfaces for its photoreduction. <b>2019</b> , 335, 278-285	10
840	A solid-state chemical reduction approach to synthesize graphitic carbon nitride with tunable nitrogen defects for efficient visible-light photocatalytic hydrogen evolution. <b>2019</b> , 535, 331-340	53
839	Graphene oxide wrapped CH3NH3PbBr3 perovskite quantum dots hybrid for photoelectrochemical CO2 reduction in organic solvents. <b>2019</b> , 465, 607-613	60
838	Foundations of Photocatalytic. <b>2019</b> , 1-11	
837	Well-designed ZnV2O6/g-C3N4 2D/2D nanosheets heterojunction with faster charges separation via pCN as mediator towards enhanced photocatalytic reduction of CO2 to fuels. <b>2019</b> , 242, 312-326	125
836	Can the photocatalyst TiO2 be incorporated into a wastewater treatment method? Background and prospects. <b>2020</b> , 340, 334-346	62
835	Coating solution with high photocatalytic activity on ceramic surfaces at low temperature. <b>2020</b> , 56, 59-66	2
834	TiO -Based Photocatalysis at the Interface with Biology and Biomedicine. <b>2020</b> , 21, 294-309	13
833	State of the Art and Prospects in Metal-Organic Framework (MOF)-Based and MOF-Derived Nanocatalysis. <b>2020</b> , 120, 1438-1511	727
832	Recent development of covalent organic frameworks (COFs): synthesis and catalytic (organic-electro-photo) applications. <b>2020</b> , 7, 411-454	153
831	Enhanced Photocatalytic Reduction of CO2 on Rutile TiO2/MgAl Layered Double Oxides with H2O Under Ambient Temperature. <b>2020</b> , 150, 1061-1071	5
830	Efficient Z-scheme photocatalysts of ultrathin g-C3N4-wrapped Au/TiO2-nanocrystals for enhanced visible-light-driven conversion of CO2 with H2O. <b>2020</b> , 263, 118314	140
829	Recent Progress and Development in Inorganic Halide Perovskite Quantum Dots for Photoelectrochemical Applications. <b>2020</b> , 16, e1903398	69
828	An overview of graphene oxide supported semiconductors based photocatalysts: Properties, synthesis and photocatalytic applications. <b>2020</b> , 297, 111826	43
827	Recent developments on AgI based heterojunction photocatalytic systems in photocatalytic application. <b>2020</b> , 383, 123083	74
826	Product selectivity of photocatalytic CO2 reduction reactions. <b>2020</b> , 32, 222-243	306

825	Multielectron transportation of polyoxometalate-grafted metalloporphyrin coordination frameworks for selective CO-to-CH photoconversion. <b>2020</b> , 7, 53-63	67
824	Green Photocatalysts for Energy and Environmental Process. 2020,	3
823	A review on the synthesis of the various types of anatase TiO2 facets and their applications for photocatalysis. <b>2020</b> , 384, 123384	100
822	Rational Design of Ag-Based Catalysts for the Electrochemical CO Reduction to CO: A Review. <b>2020</b> , 13, 39-58	55
821	Preparation and Enhanced Photo-/Electro-Catalytic Activities of Polypyrrole Coating [CuMo12O40]6[POM Based MOF Composite. <b>2020</b> , 31, 1051-1059	3
820	One-pot hydrothermal preparation of PbO-decorated brookite/anatase TiO2 composites with remarkably enhanced CO2 photoreduction activity. <b>2020</b> , 263, 118353	29
819	Photocatalytic conversion of CO2 into light olefins over TiO2 nanotube confined Cu clusters with high ratio of Cu+. <b>2020</b> , 263, 118133	33
818	Revolutionary Times. <b>2020</b> , 26, 14-18	5
817	Remarkable photocatalytic activity enhancement of CO2 conversion over 2D/2D g-C3N4/BiVO4 Z-scheme heterojunction promoted by efficient interfacial charge transfer. <b>2020</b> , 160, 342-352	90
816	Carbon-based photocatalysts for enhanced photocatalytic reduction of CO2 to solar fuels. <b>2020</b> , 4, 469-484	47
815	Two-dimensional materials and metal-organic frameworks for the CO2 reduction reaction. <b>2020</b> , 5, 100038	29
814	Synergetic effect between adsorption and photodegradation on rGO/TiO/ACF composites for dynamic toluene gaseous removal. <b>2020</b> , 27, 9866-9881	4
813	Boosting visible-light driven solar-fuel production over g-C3N4/tetra(4-carboxyphenyl)porphyrin iron(III) chloride hybrid photocatalyst via incorporation with carbon dots. <b>2020</b> , 265, 118595	18
812	Organic-inorganic hybrids for CO sensing, separation and conversion. <b>2020</b> , 5, 431-453	15
811	Immobilization of catalytic sites on quantum dots by ligand bridging for photocatalytic CO reduction. <b>2020</b> , 12, 2507-2514	13
810	Incorporating highly dispersed and stable Cu+ into TiO2 lattice for enhanced photocatalytic CO2 reduction with water. <b>2020</b> , 507, 145095	14
809	Facile in situ fabrication of Cu2O@Cu metal-semiconductor heterostructured nanorods for efficient visible-light driven CO2 reduction. <b>2020</b> , 385, 123940	48
808	TiO2 modified g-C3N4 with enhanced photocatalytic CO2 reduction performance. <b>2020</b> , 100, 106099	28

807	Co-MOF as an electron donor for promoting visible-light photoactivities of g-C3N4 nanosheets for CO2 reduction. <b>2020</b> , 41, 514-523	47
806	Highly Efficient Hydrogen and Electricity Production Combined with Degradation of Organics Based on a Novel Solar Water-Energy Nexus System. <b>2020</b> , 12, 2505-2515	8
805	Conversion of Carbon Dioxide into Hydrocarbons Vol. 1 Catalysis. <b>2020</b> ,	2
804	Solar-Inspired Water Purification Based on Emerging 2D Materials: Status and Challenges. <b>2020</b> , 4, 1900400	81
803	Perspective and status of polymeric graphitic carbon nitride based Z-scheme photocatalytic systems for sustainable photocatalytic water purification. <b>2020</b> , 391, 123496	182
802	Development of an efficient catalyst with controlled sulfur vacancies and high pyridine nitrogen content for the photoelectrochemical reduction of CO into methanol. <b>2020</b> , 702, 134981	8
801	On engineering strategies for photoselective CO2 reduction [A thorough review. <b>2020</b> , 18, 100499	11
800	Graphitic Carbon Nitride-Based Low-Dimensional Heterostructures for Photocatalytic Applications. <b>2020</b> , 4, 1900435	40
799	Continuous conversion of CO2 to alcohols in a TiO2 photoanode-driven photoelectrochemical system. <b>2020</b> , 95, 1876-1882	5
798	Fabricated g-C3N4/Ag/m-CeO2 composite photocatalyst for enhanced photoconversion of CO2. <b>2020</b> , 506, 144931	32
797	Strategies for Designing Nanoparticles for Electro- and Photocatalytic CO Reduction. 2020, 15, 253-265	4
796	A stable covalent organic framework for photocatalytic carbon dioxide reduction. <b>2020</b> , 11, 543-550	133
795	Solar-heating boosted catalytic reduction of CO2 under full-solar spectrum. 2020, 41, 131-139	34
794	Photo/Electrochemical Applications of Metal Sulfide/TiO2 Heterostructures. <b>2020</b> , 10, 1902355	133
793	Graphene-Zn0.5Cd0.5S nanocomposite with enhanced visible-light photocatalytic CO2 reduction activity. <b>2020</b> , 506, 144683	33
79 <sup>2</sup>	Low-cost visible-light photosynthesis of water and adsorbed carbon dioxide into long-chain hydrocarbons. <b>2020</b> , 739, 136985	5
791	Photoactivated Graphene Oxide to Enhance Photocatalytic Reduction of CO. <b>2020</b> , 12, 3580-3591	49
79°	Electrochemical preparation of Cu/Cu2O-Cu(BDC) metal-organic framework electrodes for photoelectrocatalytic reduction of CO2. <b>2020</b> , 42, 101299	16

789	Covalent Organic Framework Nanosheets Embedding Single Cobalt Sites for Photocatalytic Reduction of Carbon Dioxide. <b>2020</b> , 32, 9107-9114	32
788	Interfaces of graphitic carbon nitride-based composite photocatalysts. <b>2020</b> , 7, 4754-4793	16
787	Carbon dioxide utilization: A paradigm shift with CO2 economy. <b>2020</b> , 3, 100013	22
786	Cu2O@Cu@UiO-66-NH2 Ternary Nanocubes for Photocatalytic CO2 Reduction. <b>2020</b> , 3, 10437-10445	30
7 <sup>8</sup> 5	Enhanced CO evolution for photocatalytic conversion of CO2 by H2O over Ca modified Ga2O3. <b>2020</b> , 3,	9
7 <sup>8</sup> 4	Integrated nano-architectured photocatalysts for photochemical CO reduction. <b>2020</b> , 12, 23301-23332	30
783	What is the better choice for Pd cocatalysts for photocatalytic reduction of CO2 to renewable fuels: high-crystallinity or amorphous?. <b>2020</b> , 8, 21208-21218	11
782	Synergetic effect of hollowrization and sulfonation on improving the photocatalytic performance of covalent porphyrin polymers in the reduction of CO2. <b>2020</b> , 4, 2754-2761	5
781	Engineering Heterostructured Nanocatalysts for CO Transformation Reactions: Advances and Perspectives. <b>2020</b> , 13, 6090-6123	6
78o	Electrocatalytic conversion of CO2 to hydrocarbon and alcohol products: Realities and prospects of Cu-based materials. <b>2020</b> , 25, e00200	9
779	Design of efficient photocatalysts through band gap engineering. 2020, 1-18	1
778	Synthesis and Characterization of N-Doped SiC Powder with Enhanced Photocatalytic and Photoelectrochemical Performance. <b>2020</b> , 10, 769	6
777	Metal oxide- and metal sulfide-based nanomaterials as photocatalysts. 2020, 77-96	3
776	Selective Photocatalytic Reduction of CO to CH Modulated by Chloride Modification on BiWO Nanosheets. <b>2020</b> , 12, 54507-54516	23
775	Construction of a Highly Efficient and Durable 1D Ternary CdS/ZnS/Pt Nanohybrid Catalyst for Photocatalytic CO2 Reduction into Chemical Fuels under Solar Light Irradiation. <b>2020</b> , 3, 10533-10540	9
774	Photocatalytic nanomaterials for CO2 photoreduction and disinfection of bacteria. <b>2020</b> , 159-189	1
773	Two-dimensional semiconducting covalent organic frameworks for photocatalytic solar fuel production. <b>2020</b> , 40, 160-172	19
772	Construction of Highly Active and Selective Polydopamine Modified Hollow ZnO/Co3O4 p-n Heterojunction Catalyst for Photocatalytic CO2 Reduction. <b>2020</b> , 8, 11465-11476	38

771	Z-scheme heterojunction of SnS2-decorated 3DOM-SrTiO3 for selectively photocatalytic CO2 reduction into CH4. <b>2020</b> , 31, 2774-2778	36
770	A review of recent catalyst advances in CO2 methanation processes. <b>2020</b> , 356, 471-489	77
769	BMIM-BF4 RTIL: Synthesis, Characterization and Performance Evaluation for Electrochemical CO2 Reduction to CO over Sn and MoSi2 Cathodes. <b>2020</b> , 6, 47	2
768	Crystalline Carbon Nitride Supported Copper Single Atoms for Photocatalytic CO Reduction with Nearly 100% CO Selectivity. <b>2020</b> , 14, 10552-10561	155
767	Photocatalytic CO2 reduction over postcalcinated atomically thin TiO2 nanosheets: Residual carbon removal and structure transformation. <b>2020</b> , 41, 101262	1
766	Regulation of intrinsic physicochemical properties of metal oxide nanomaterials for energy conversion and environmental detection applications. <b>2020</b> , 8, 17326-17359	11
765	Optimized Synthesis of Ag-Modified Al-Doped SrTiO3 Photocatalyst for the Conversion of CO2 Using H2O as an Electron Donor. <b>2020</b> , 5, 8779-8786	9
764	CuO Decoration Controls Nb2O5 Photocatalyst Selectivity in CO2 Reduction. <b>2020</b> , 3, 7629-7636	13
763	A review on graphitic carbon nitride (g-C3N4) based nanocomposites: Synthesis, categories, and their application in photocatalysis. <b>2020</b> , 846, 156446	128
762	Halide Perovskite Nanocrystal Photocatalysts for CO Reduction: Successes and Challenges. <b>2020</b> , 11, 6921-6934	40
761	Fundamentals and challenges of ultrathin 2D photocatalysts in boosting CO photoreduction. <b>2020</b> , 49, 6592-6604	101
760	Recent advancements in g-CN-based photocatalysts for photocatalytic CO reduction: a mini review <b>2020</b> , 10, 29408-29418	30
759	Defect-promoted visible light-driven C C coupling reactions pairing with CO2 reduction. <b>2020</b> , 390, 244-250	26
758	2D PbS Nanosheets with Zigzag Edges for Efficient CO Photoconversion. <b>2020</b> , 26, 13601-13605	4
757	Photothermal Conversion of CO2 with Tunable Selectivity Using Fe-Based Catalysts: From Oxide to Carbide. <b>2020</b> , 10, 10364-10374	43
756	Layered Double Hydroxide (LDH) Based Photocatalysts: An Outstanding Strategy for Efficient Photocatalytic CO2 Conversion. <b>2020</b> , 10, 1185	22
755	CO2 and H2O Coadsorption and Reaction on the Low-Index Surfaces of Tantalum Nitride: A First-Principles DFT-D3 Investigation. <b>2020</b> , 10, 1217	5
754	Synthesis and Characterization of p-n Junction Ternary Mixed Oxides for Photocatalytic Coprocessing of CO2 and H2O. <b>2020</b> , 10, 980	5

753	Formation of a mixed-valence Cu(i)/Cu(ii) metal-organic framework with the full light spectrum and high selectivity of CO photoreduction into CH. <b>2020</b> , 11, 10143-10148	18
752	Mechanism of visible photon absorption: unveiling of the C3N4InO photoactive interface by means of EPR spectroscopy. <b>2020</b> , 1, 2357-2367	7
751	Activity and selectivity of CO photoreduction on catalytic materials. <b>2020</b> , 49, 12918-12928	7
75°	UV-NIR Dual-Responsive Nanocomposite Coatings with Healable, Superhydrophobic, and Contaminant-Resistant Properties. <b>2020</b> , 12, 48101-48108	15
749	Synthesized Z-scheme photocatalyst ZnO/g-C3N4 for enhanced photocatalytic reduction of CO2. <b>2020</b> , 44, 16390-16399	14
748	Recent advances in two-dimensional nanomaterials for photocatalytic reduction of CO2: insights into performance, theories and perspective. <b>2020</b> , 8, 19156-19195	53
747	Recent Advances on Metalloporphyrin-Based Materials for Visible-Light-Driven CO Reduction. <b>2020</b> , 13, 6124-6140	17
746	Emerging Metal Single Atoms in Electrocatalysts and Batteries. <b>2020</b> , 30, 2003870	25
745	Reverse Semi-Combustion Driven by Titanium Dioxide-Ionic Liquid Hybrid Photocatalyst. <b>2020</b> , 13, 5580-5585	Ο
744	Photons to Formate-A Review on Photocatalytic Reduction of CO to Formic Acid. <b>2020</b> , 10,	14
743	Recent progresses on improving CO2 adsorption and proton production for enhancing efficiency of photocatalytic CO2 reduction by H2O. <b>2020</b> , 1, 33-39	6
742	{001}/{101} facets co-exposed TiO2 microsheet arrays with Lanthanum doping for enhancing photocatalytic CO2 reduction. <b>2020</b> , 31, 19464-19474	O
741	Phosphorus-doped inverse opal g-C3N4 for efficient and selective CO generation from photocatalytic reduction of CO2. <b>2020</b> , 10, 3694-3700	17
740	Synthesis of hydroxide nanoparticles of Co/Cu on carbon nitride surface via galvanic exchange method for electrocatalytic CO2 reduction into formate. <b>2020</b> , 598, 124835	9
739	Cobalt Plasmonic Superstructures Enable Almost 100% Broadband Photon Efficient CO Photocatalysis. <b>2020</b> , 32, e2000014	55
738	Photoelectrocatalytic Reduction of CO2 over CuBi2O4/TiO2-NTs under Simulated Solar Irradiation. <b>2020</b> , 5, 5137-5145	3
737	Plasmonic nanocatalysis for solar energy harvesting and sustainable chemistry. <b>2020</b> , 8, 10074-10095	24
736	Recent advances in engineering active sites for photocatalytic CO reduction. <b>2020</b> , 12, 12196-12209	37

735	Reticulation All-Solid-State Direct Z-Scheme Photocatalysts for Photocatalytic Reduction of Carbon Dioxide. <b>2020</b> , 10, 6367-6376	61
734	CO2 photocatalytic reduction with CNT/TiO2 based nanocomposites prepared by high-pressure technology. <b>2020</b> , 163, 104876	17
733	A synergy of CdSe sensitization and exposure of TiO2 (0 $\circ$ 1) facet in CdSe-TiO2 nanostructures for photoreduction of bicarbonate. <b>2020</b> , 118, 107992	3
732	Multi-Structure Hollow Nanofibers: Controlled Synthesis and Photocatalytic Applications. <b>2020</b> , 6, 1149-1163	6
731	The effects of morphologies on photoreduction of carbon dioxide to gaseous fuel over tin disulfide under visible light irradiation. <b>2020</b> , 31, 2505-2512	5
730	Synergistic effects of PdAg bimetals and g-C3N4 photocatalysts for selective and efficient conversion of gaseous CO2. <b>2020</b> , 466, 228306	15
729	Unique hole-accepting carbon-dots promoting selective carbon dioxide reduction nearly 100% to methanol by pure water. <b>2020</b> , 11, 2531	78
728	2D/2D Heterostructured Photocatalysts: An Emerging Platform for Artificial Photosynthesis. <b>2020</b> , 4, 2000132	70
727	Direct and indirect Z-scheme heterostructure-coupled photosystem enabling cooperation of CO reduction and HO oxidation. <b>2020</b> , 11, 3043	93
726	An oriented built-in electric field induced by cobalt surface gradient diffused doping in MgInS for enhanced photocatalytic CH evolution. <b>2020</b> , 49, 9213-9217	15
725	Catalytic conversion of CO2 to chemicals and fuels: the collective thermocatalytic/photocatalytic/electrocatalytic approach with graphitic carbon nitride. <b>2020</b> , 1, 1506-1545	44
724	Direct Z-Scheme 0D/2D Heterojunction of CsPbBr Quantum Dots/BiWO Nanosheets for Efficient Photocatalytic CO Reduction. <b>2020</b> , 12, 31477-31485	111
723	Different Carbonate Isomers Formed by the Addition of CO to MO for M = Ti, Zr, and Hf. <b>2020</b> , 124, 5402-5407	<b>'</b> o
722	Degenerated TiO2 Semiconductor Modified with Ni and Zn as Efficient Photocatalysts for the Water Splitting Reaction. <b>2020</b> , 12, 4642-4651	6
721	Influence of doped silver nanoparticles on the photocatalytic performance of ZnMn2O4 in the production of methanol from CO2 photocatalytic reduction. <b>2020</b> , 10, 3865-3874	10
720	Emerging 2D pnictogens for catalytic applications: status and challenges. <b>2020</b> , 8, 12887-12927	17
719	Functionalized Graphene Derivatives and TiO for High Visible Light Photodegradation of Azo Dyes. <b>2020</b> , 10,	7
718	Construction of 2D/2D Bi2Se3/g-C3N4 nanocomposite with High interfacial charge separation and photo-heat conversion efficiency for selective photocatalytic CO2 reduction. <b>2020</b> , 277, 119232	77

717	Rational Design of Carbon-Based 2D Nanostructures for Enhanced Photocatalytic CO Reduction: A Dimensionality Perspective. <b>2020</b> , 26, 9710-9748	83
716	Construction of netlike 3D Z-scheme photoelectrodes with improved photocatalytic performance based on g-C3N4 nanosheets modified TiO2 nanobelt-tubes. <b>2020</b> , 226, 115844	12
715	Emerging applications of porous organic polymers in visible-light photocatalysis. <b>2020</b> , 8, 7003-7034	94
714	Photocatalytic CO2 reduction over metal-organic framework-based materials. <b>2020</b> , 412, 213262	182
713	600 nm Irradiation-Induced Efficient Photocatalytic CO2 Reduction by Ultrathin Layered Double Hydroxide Nanosheets. <b>2020</b> , 59, 5848-5857	26
712	CdS/ZnO: A Multipronged Approach for Efficient Reduction of Carbon Dioxide under Visible Light Irradiation. <b>2020</b> , 8, 5270-5277	31
711	Synergism of surface strain and interfacial polarization on Pd@Au corelhell cocatalysts for highly efficient photocatalytic CO2 reduction over TiO2. <b>2020</b> , 8, 7350-7359	26
710	Recent progress on photocatalytic heterostructures with full solar spectral responses. <b>2020</b> , 393, 124719	56
709	Thermo-photo catalytic CO2 hydrogenation over Ru/TiO2. <b>2020</b> , 8, 7390-7394	35
708	Selective synthesis of methanol by photoelectrocatalytic reduction of CO2 over PANI-CuFe2O4 hybrid catalyst. <b>2020</b> , 736, 042020	О
707	Photocatalytic conversion of CO2 by H2O over heterogeneous photocatalysts. <b>2020</b> , 179-190	1
706	Photoelectrochemical solar fuels from carbon dioxide, water and sunlight. <b>2020</b> , 10, 1967-1974	16
705	Covalent organic frameworks: emerging high-performance platforms for efficient photocatalytic applications. <b>2020</b> , 8, 6957-6983	91
704	Boosting Visible-Light Photocatalytic Performance for CO2 Reduction via Hydroxylated Graphene Quantum Dots Sensitized MIL-101(Fe). <b>2020</b> , 7, 2000468	7
703	A first-principles study of electronic structure and photocatalytic performance of GaN-MX (M = Mo, W; X= S, Se) van der Waals heterostructures <b>2020</b> , 10, 24683-24690	9
702	An efficient visible-light photocatalyst for CO2 reduction fabricated by cobalt porphyrin and graphitic carbon nitride via covalent bonding. <b>2020</b> , 13, 2665-2672	28
701	Acidic Hydrogen Enhanced Photocatalytic Reduction of CO2 on Planetary Surfaces. 2020, 4, 1001-1009	2
700	Visible light assisted photocatalytic reduction of CO2 to methanol using Fe3O4@N-C/Cu2O nanostructure photocatalyst. <b>2020</b> , 401, 112763	9

699	Towards artificial photosynthesis: Sustainable hydrogen utilization for photocatalytic reduction of CO2 to high-value renewable fuels. <b>2020</b> , 402, 126184	55
698	Photo-sensitive 2D Arrangement of DH/H2O on Brookite TiO2(210). <b>2020</b> , 124, 19091-19100	2
697	Modelling of TiO2-based packing bed photocatalytic reactor with Raschig rings for phenol degradation by coupled CFD and DEM. <b>2020</b> , 400, 125988	9
696	Monitoring Local Electric Fields using Stark Shifts on Napthyl Nitrile-Functionalized Silicon Photoelectrodes. <b>2020</b> , 124, 17000-17005	3
695	Modified Nano-TiO2 Based Composites for Environmental Photocatalytic Applications. <b>2020</b> , 10, 759	16
694	Development of photocatalysts and system optimization for CO2 photoreduction. <b>2020</b> , 39-73	1
693	Review of modeling and simulation strategies for unstructured packing bed photoreactors with CFD method. <b>2020</b> , 131, 109986	4
692	Recent advances in visible-light-driven conversion of CO2 by photocatalysts into fuels or value-added chemicals. <b>2020</b> , 3, 46-59	33
691	In situ self-assembly of zirconium metal <b>ö</b> rganic frameworks onto ultrathin carbon nitride for enhanced visible light-driven conversion of CO2 to CO. <b>2020</b> , 8, 6034-6040	32
690	Solvent selection and Pt decoration towards enhanced photocatalytic CO2 reduction over CsPbBr3 perovskite single crystals. <b>2020</b> , 4, 2249-2255	27
689	Recent Advances in TiO-Based Photocatalysts for Reduction of CO to Fuels. <b>2020</b> , 10,	65
688	Non-precious molybdenum nanospheres as a novel cocatalyst for full-spectrum-driven photocatalytic CO reforming to CH. <b>2020</b> , 393, 122324	24
687	Photoelectrochemical investigation of the role of surface-modified Yb species in the photocatalytic conversion of CO2 by H2O over Ga2O3 photocatalysts. <b>2020</b> , 352, 18-26	4
686	Controlled synthesis of novel Z-scheme iron phthalocyanine/porous WO3 nanocomposites as efficient photocatalysts for CO2 reduction. <b>2020</b> , 270, 118849	47
685	Synthesis of three-component C3N4/rGO/C-TiO2 photocatalyst with enhanced visible-light responsive photocatalytic deNO activity. <b>2020</b> , 390, 124616	27
684	Simple photoreduction of carbon dioxide to formic acid and true quantum yield. <b>2020</b> , 22, 4632-4639	О
683	Photocatalytic CO2 reduction catalyzed by metalloporphyrin: Understanding of cobalt and nickel sites in activity and adsorption. <b>2020</b> , 513, 145801	20
682	Mesoporous covalent organic framework: An active photo-catalyst for formic acid synthesis through carbon dioxide reduction under visible light. <b>2020</b> , 484, 110730	28

681	Optical control of selectivity of high rate CO2 photoreduction via interband- or hot electron Z-scheme reaction pathways in Au-TiO2 plasmonic photonic crystal photocatalyst. <b>2020</b> , 267, 118644	56
680	Graphene nanocrystals in CO2 photoreduction with H2O for fuel production. <b>2020</b> , 2, 991-1006	4
679	Two-dimensional materials for energy conversion and storage. <b>2020</b> , 111, 100637	73
678	Micro-kinetic modelling of photocatalytic CO2 reduction over undoped and N-doped TiO2. <b>2020</b> , 10, 1688-1698	12
677	Boosting Photocatalytic CO2 Reduction on CsPbBr3 Perovskite Nanocrystals by Immobilizing Metal Complexes. <b>2020</b> , 32, 1517-1525	112
676	Recent advances in MXenes supported semiconductors based photocatalysts: Properties, synthesis and photocatalytic applications. <b>2020</b> , 85, 1-33	46
675	Recent Advances in Niobium-Based Materials for Photocatalytic Solar Fuel Production. <b>2020</b> , 10, 126	30
674	Synthesis of Zn(In Ga1)2O4 solid-solutions with tunable band-gaps for enhanced photocatalytic hydrogen evolution under solar-light irradiation. <b>2020</b> , 45, 6621-6628	8
673	Visible light-assisted reduction of CO2 into formaldehyde by heteroleptic ruthenium metal complex <b>T</b> iO2 hybrids in an aqueous medium. <b>2020</b> , 22, 1650-1661	12
672	A Metal-Free Donor-Acceptor Covalent Organic Framework Photocatalyst for Visible-Light-Driven Reduction of CO with H O. <b>2020</b> , 13, 1725-1729	80
671	Morphological Influence of TiO2 Nanostructures on Charge Transfer and Tetracycline Degradation Under LED Light. <b>2020</b> , 5, 1037-1040	3
670	MetalBrganic frameworks for the chemical fixation of CO2 into cyclic carbonates. <b>2020</b> , 408, 213173	139
669	Highly efficient binary copper-iron catalyst for photoelectrochemical carbon dioxide reduction toward methane. <b>2020</b> , 117, 1330-1338	47
668	Photocatalytic Reduction of CO2 by Metal-Free-Based Materials: Recent Advances and Future Perspective. <b>2020</b> , 4, 1900546	90
667	The main factor to improve the performance of CoSe2 for photocatalytic CO2 reduction: element doping or phase transformation. <b>2020</b> , 8, 4457-4463	9
666	In-situ/operando soft x-ray spectroscopy characterization of energy and catalytic materials. <b>2020</b> , 208, 110432	4
665	Influence of oxygen vacancies on the performance of ZnO nanoparticles towards CO2 photoreduction in different aqueous solutions. <b>2020</b> , 8, 103887	16
664	2D Titanium/Niobium Metal Oxide-Based Materials for Photocatalytic Application. <b>2020</b> , 4, 2000070	21

663	Cu@porphyrin-COFs nanorods for efficiently photoelectrocatalytic reduction of CO2. <b>2020</b> , 396, 125255	18
662	Nanostructured TiO2 for light-driven CO2 conversion into solar fuels. <b>2020</b> , 8, 040914	15
661	Carbon Gels-Modified TiO: Promising Materials for Photocatalysis Applications. 2020, 13,	9
660	2-Aminobenzenethiol-Functionalized Silver-Decorated Nanoporous Silicon Photoelectrodes for Selective CO2 Reduction. <b>2020</b> , 132, 11559-11566	4
659	2-Aminobenzenethiol-Functionalized Silver-Decorated Nanoporous Silicon Photoelectrodes for Selective CO Reduction. <b>2020</b> , 59, 11462-11469	11
658	2D/2D heterostructured photocatalyst: Rational design for energy and environmental applications. <b>2020</b> , 63, 2119-2152	33
657	Principle and surface science of photocatalysis. <b>2020</b> , 31, 1-38	7
656	A green approach to the fabrication of a TiO2/NiAl-LDH coreEhell hybrid photocatalyst for efficient and selective solar-powered reduction of CO2 into value-added fuels. <b>2020</b> , 8, 8020-8032	31
655	Photocatalytic Conversion of Lignin into Chemicals and Fuels. <b>2020</b> , 13, 4199-4213	28
654	Photocatalytic conversion of CO2 to methanol using membrane-integrated Green approach: A review on capture, conversion and purification. <b>2020</b> , 8, 103935	19
653	Selective photocatalytic CO2 reduction over Zn-based layered double hydroxides containing tri or tetravalent metals. <b>2020</b> , 65, 987-994	86
652	Efficient reduction of CO2 to CO by Ag3PO4/TiO2 photocatalyst under ultraviolet and visible light irradiation. <b>2020</b> , 15, e2499	2
651	A Review of Recent Progress on Silicon Carbide for Photoelectrochemical Water Splitting. <b>2020</b> , 4, 2000111	14
650	Degradation of environmental contaminants by topical heterogeneous photocatalysts. <b>2020</b> , 151-182	2
649	Controlled nanostructured morphology of BiVO4 photoanodes for efficient on-demand catalysis in solar water-splitting and sustainable water-treatment. <b>2020</b> , 514, 146075	13
648	Recent progress in two-dimensional nanomaterials for photocatalytic carbon dioxide transformation into solar fuels. <b>2020</b> , 9, 100037	21
647	Light-Driven Hydrogenation of Bicarbonate into Formate over Nano-Pd/TiO2. <b>2020</b> , 8, 6798-6805	7
646	Highly efficient and selective photocatalytic CO2 reduction based on water-soluble CdS QDs modified by the mixed ligands in one pot. <b>2020</b> , 10, 2821-2829	10

645	Facile Synthesis of Zn Doped g-C3N4 for Enhanced Visible Light Driven Photocatalytic Hydrogen Production. <b>2021</b> , 64, 65-72	6
644	Glycine-Functionalized CsPbBr Nanocrystals for Efficient Visible-Light Photocatalysis of CO Reduction. <b>2021</b> , 27, 2305-2309	14
643	Graphitic Carbon Nitride-Based Z-Scheme Structure for Photocatalytic CO2 Reduction. <b>2021</b> , 35, 7-24	42
642	Investigations on effect of graphitic carbon nitride loading on the properties and electrochemical performance of g-C3N4/TiO2 nanocomposites for energy storage device applications. <b>2021</b> , 121, 105328	17
641	Selective photocatalytic reduction of CO2 to CO mediated by a [FeFe]-hydrogenase model with a 1,2-phenylene S-to-S bridge. <b>2021</b> , 42, 310-319	5
640	Engineering photocatalytic and photoelectrocatalytic CO2 reduction reactions: Mechanisms, intrinsic kinetics, mass transfer resistances, reactors and multi-scale modelling simulations. <b>2021</b> , 407, 126799	33
639	Boosting photocatalytic CO2 reduction over a covalent organic framework decorated with ruthenium nanoparticles. <b>2021</b> , 405, 127011	39
638	Localized surface plasmonic resonance role of silver nanoparticles in the enhancement of long-chain hydrocarbons of the CO2 reduction over Ag-gC3N4/ZnO nanorods photocatalysts. <b>2021</b> , 229, 116049	15
637	Ferrites as solar photocatalytic materials and their activities in solar energy conversion and environmental protection: A review. <b>2021</b> , 219, 110786	17
636	Microwave-assisted synthesis of Ca1-xMnxMoO4 ( $x = 0, 0.2, 0.7, and 1$ ) and its application in artificial photosynthesis. <b>2021</b> , 47, 5388-5398	4
635	The sources of hydrogen affect the productivity and selectivity of CO2 photoreduction on SiC. <b>2021</b> , 538, 148010	3
634	Recent Progress on Carbon Nitride and Its Hybrid Photocatalysts for CO2 Reduction. <b>2021</b> , 5, 2000478	16
633	Recent advances in photocatalytic multivariate metal organic frameworks-based nanostructures toward renewable energy and the removal of environmental pollutants. <b>2021</b> , 19, 100589	38
632	Recent advances in and comprehensive consideration of the oxidation half reaction in photocatalytic CO2 conversion. <b>2021</b> , 9, 87-110	11
631	Efficient Visible-Light Driven Photothermal Conversion of CO2 to Methane by Nickel Nanoparticles Supported on Barium Titanate. <b>2021</b> , 31, 2008244	22
630	Development of proficient photocatalytic systems for enhanced photocatalytic reduction of carbon dioxide. <b>2021</b> , 5, 12-33	16
629	Critical Aspects of Metal-Organic Framework-Based Materials for Solar-Driven CO Reduction into Valuable Fuels. <b>2021</b> , 5, 2000082	4
628	New heterojunctions of CN/TiO2 with different band structure as highly efficient catalysts for artificial photosynthesis. <b>2021</b> , 285, 119781	8

# (2021-2021)

627	Zirconium doping in calcium titanate perovskite oxides with surface nanostep structure for promoting photocatalytic hydrogen evolution. <b>2021</b> , 542, 148544	3
626	Reduction of carbon dioxide (CO2) using DR dblock electro-catalysts: A review. <b>2021</b> , 9, 104798	7
625	Fundamentals and applications of photo-thermal catalysis. <b>2021</b> , 50, 2173-2210	91
624	In-situ growth of ultrafine ZnO on g-C3N4 layer for highly active and selective CO2 photoreduction to CH4 under visible light. <b>2021</b> , 137, 111177	13
623	A closer look inside TiO2 (P25) photocatalytic CO2/HCO3I reduction with water. Methane rate and selectivity enhancements. <b>2021</b> , 409, 128141	5
622	Photocatalytic and electrocatalytic transformations of C1 molecules involving CII coupling. <b>2021</b> , 14, 37-89	29
621	Photocatalytic CO2 reduction over g-C3N4 based heterostructures: Recent progress and prospects. <b>2021</b> , 9, 104631	19
620	An overview on polymeric carbon nitride assisted photocatalytic CO2 reduction: Strategically manoeuvring solar to fuel conversion efficiency. <b>2021</b> , 230, 116219	37
619	Anchoring Single-Atom Ru on CdS with Enhanced CO2 Capture and Charge Accumulation for High Selectivity of Photothermocatalytic CO2 Reduction to Solar Fuels. <b>2021</b> , 5, 2000313	19
618	Challenges and implication of full solar spectrum-driven photocatalyst. <b>2021</b> , 37, 533-560	6
618	Challenges and implication of full solar spectrum-driven photocatalyst. <b>2021</b> , 37, 533-560  CHAPTER 8:Emerging Applications for Graphitic Carbon Nitride-based Materials: CO2 Reduction as a Case Study. <b>2021</b> , 295-317	6
	CHAPTER 8:Emerging Applications for Graphitic Carbon Nitride-based Materials: CO2 Reduction as	6 59
617	CHAPTER 8:Emerging Applications for Graphitic Carbon Nitride-based Materials: CO2 Reduction as a Case Study. <b>2021</b> , 295-317  Green sonochemical synthesis of BaDyNiO/DyO and BaDyNiO/NiO nanocomposites in the presence of core almond as a capping agent and their application as photocatalysts for the removal of	
617 616	CHAPTER 8:Emerging Applications for Graphitic Carbon Nitride-based Materials: CO2 Reduction as a Case Study. <b>2021</b> , 295-317  Green sonochemical synthesis of BaDyNiO/DyO and BaDyNiO/NiO nanocomposites in the presence of core almond as a capping agent and their application as photocatalysts for the removal of organic dyes in water <b>2021</b> , 11, 11500-11512	59
617 616 615	CHAPTER 8:Emerging Applications for Graphitic Carbon Nitride-based Materials: CO2 Reduction as a Case Study. 2021, 295-317  Green sonochemical synthesis of BaDyNiO/DyO and BaDyNiO/NiO nanocomposites in the presence of core almond as a capping agent and their application as photocatalysts for the removal of organic dyes in water 2021, 11, 11500-11512  Shedding light on CO2: Catalytic synthesis of solar methanol. 2021, 3, e12078  A mathematical analysis of carbon fixing materials that grow, reinforce, and self-heal from	59 6
617 616 615	CHAPTER 8:Emerging Applications for Graphitic Carbon Nitride-based Materials: CO2 Reduction as a Case Study. 2021, 295-317  Green sonochemical synthesis of BaDyNiO/DyO and BaDyNiO/NiO nanocomposites in the presence of core almond as a capping agent and their application as photocatalysts for the removal of organic dyes in water 2021, 11, 11500-11512  Shedding light on CO2: Catalytic synthesis of solar methanol. 2021, 3, e12078  A mathematical analysis of carbon fixing materials that grow, reinforce, and self-heal from atmospheric carbon dioxide. 2021, 23, 5556-5570	59 6 0
617 616 615 614	CHAPTER 8:Emerging Applications for Graphitic Carbon Nitride-based Materials: CO2 Reduction as a Case Study. 2021, 295-317  Green sonochemical synthesis of BaDyNiO/DyO and BaDyNiO/NiO nanocomposites in the presence of core almond as a capping agent and their application as photocatalysts for the removal of organic dyes in water 2021, 11, 11500-11512  Shedding light on CO2: Catalytic synthesis of solar methanol. 2021, 3, e12078  A mathematical analysis of carbon fixing materials that grow, reinforce, and self-heal from atmospheric carbon dioxide. 2021, 23, 5556-5570  Perspectives and state of the art in producing solar fuels and chemicals from CO2. 2021, 181-219  FeO-based nanocomposites: synthesis, characterization, and photocatalytic response towards	59 6 0

609	Engineered tungsten oxide-based photocatalysts for CO2 reduction: categories and roles.	8
608	Coupling CsPbBr Quantum Dots with Covalent Triazine Frameworks for Visible-Light-Driven CO Reduction. <b>2021</b> , 14, 1131-1139	20
607	Electrocatalysis for CO conversion: from fundamentals to value-added products. <b>2021</b> , 50, 4993-5061	157
606	Semiconductor @ sensitizer composites for enhanced photoinduced processes. 2021, 183-209	O
605	Metal-organic framework photocatalysts for carbon dioxide reduction. <b>2021</b> , 389-420	
604	A direct Z-scheme mechanism for selective hydrogenation of aromatic nitro compounds over a hybrid photocatalyst composed of ZnIn2S4 and WO3 nanorods. <b>2021</b> , 45, 3298-3310	1
603	Perspectives in Carbon Oxides Conversion to Methanol/Dimethyl Ether: Distinctive Contribution of Heterogeneous and Photocatalysis. <b>2021</b> , 557-597	
602	Conversion of carbon dioxide to valuable compounds. <b>2021</b> , 307-352	
601	Nanocatalyst for CO2 hydrogenation. <b>2021</b> , 87-109	
600	Cellulose Photocatalysis for Renewable Energy Production. <b>2021</b> , 1-34	O
600 599	Cellulose Photocatalysis for Renewable Energy Production. 2021, 1-34  Application of metalBrganic frameworks as an alternative to metal oxide-based photocatalysts for the production of industrially important organic chemicals. 2021, 23, 6172-6204	9
	Application of metal Brganic frameworks as an alternative to metal oxide-based photocatalysts for	
599	Application of metal organic frameworks as an alternative to metal oxide-based photocatalysts for the production of industrially important organic chemicals. <b>2021</b> , 23, 6172-6204	
599 598	Application of metalorganic frameworks as an alternative to metal oxide-based photocatalysts for the production of industrially important organic chemicals. 2021, 23, 6172-6204  CoreShell Materials for Photocatalytic CO2 Reduction. 2021, 201-214  Fly ash-, foundry sand-, clay-, and pumice-based metal oxide nanocomposites as green	9
599 598 597	Application of metalliganic frameworks as an alternative to metal oxide-based photocatalysts for the production of industrially important organic chemicals. 2021, 23, 6172-6204  CoreBhell Materials for Photocatalytic CO2 Reduction. 2021, 201-214  Fly ash-, foundry sand-, clay-, and pumice-based metal oxide nanocomposites as green photocatalysts 2021, 11, 30805-30826  Mechanistic insight into photocatalytic CO2 reduction by a Z-scheme g-C3N4/TiO2 heterostructure.	2
599 598 597 596	Application of metalBrganic frameworks as an alternative to metal oxide-based photocatalysts for the production of industrially important organic chemicals. 2021, 23, 6172-6204  CoreBhell Materials for Photocatalytic CO2 Reduction. 2021, 201-214  Fly ash-, foundry sand-, clay-, and pumice-based metal oxide nanocomposites as green photocatalysts 2021, 11, 30805-30826  Mechanistic insight into photocatalytic CO2 reduction by a Z-scheme g-C3N4/TiO2 heterostructure. 2021, 45, 11474-11480  Semiconductor photocatalysts and mechanisms of the carbon dioxide reduction and molecular	2 3
599 598 597 596	Application of metalBrganic frameworks as an alternative to metal oxide-based photocatalysts for the production of industrially important organic chemicals. 2021, 23, 6172-6204  CoreBhell Materials for Photocatalytic CO2 Reduction. 2021, 201-214  Fly ash-, foundry sand-, clay-, and pumice-based metal oxide nanocomposites as green photocatalysts 2021, 11, 30805-30826  Mechanistic insight into photocatalytic CO2 reduction by a Z-scheme g-C3N4/TiO2 heterostructure. 2021, 45, 11474-11480  Semiconductor photocatalysts and mechanisms of the carbon dioxide reduction and molecular nitrogen fixation under UV- and visible light irradiation. 2021, 90,	9 2 3

# (2021-2021)

591	Regulating morphological and electronic structures of polymeric carbon nitrides by successive copolymerization and stream reforming for photocatalytic CO2 reduction. <b>2021</b> , 11, 2570-2576	4
590	2D Materials for electrochemical carbon dioxide reduction. <b>2021</b> , 183-196	O
589	Photo-driven selective CO2 reduction by H2O into ethanol over Pd/MnIIiO2: suitable synergistic effect between Pd and Mn sites. <b>2021</b> , 11, 2261-2272	2
588	Preparation and characterization of boron doped CNB/MnO2 and its photocatalytic application of dye degradation. <b>2021</b> , 42, 1506-1512	3
587	Direct Z-scheme copper cobaltite/covalent triazine-based framework heterojunction for efficient photocatalytic CO2 reduction under visible light. <b>2021</b> , 5, 732-739	7
586	A review on g-C3N4 incorporated with organics for enhanced photocatalytic water splitting. <b>2021</b> , 9, 12898-12922	26
585	Graphene-based frustrated Lewis pairs as bifunctional catalysts for CO2 reduction via the dissociative chemisorption of molecular H2: a periodic density functional perspective. <b>2021</b> , 45, 9959-9966	1
584	Graphitic carbon nitride-based metal-free photocatalyst. <b>2021</b> , 449-484	O
583	Strategic design and evaluation of metal oxides for photocatalytic CO2 reduction. 2021, 255-265	
582	Fundamentals of photocatalysis: The role of the photocatalysts in heterogeneous photo-assisted reactions. <b>2021</b> , 3-9	1
581	A butterfly shaped organic heterojunction photocatalyst for effective photocatalytic CO2 reduction. <b>2021</b> , 23, 4963-4974	3
580	Recent Progress in Plasmonic Hybrid Photocatalysis for CO2 Photoreduction and CI Coupling Reactions. <b>2021</b> , 11, 155	2
579	Impact of structure, doping and defect-engineering in 2D materials on CO2 capture and conversion. <b>2021</b> , 6, 1701-1738	5
578	Design, Fabrication, and Mechanism of Nitrogen-Doped Graphene-Based Photocatalyst. <b>2021</b> , 33, e2003521	114
577	Photocatalytic heterostructured materials for air decontamination and solar fuels production. <b>2021</b> , 593-636	0
576	Artificial photosynthesis system for the reduction of carbon dioxide to value-added fuels. <b>2021</b> , 917-938	
575	In Situ Construction of Lead-Free Perovskite Direct Z-Scheme Heterojunction Cs3Bi2I9/Bi2WO6 for Efficient Photocatalysis of CO2 Reduction. <b>2021</b> , 5, 2000691	25
574	Nanostructured Semiconductors for Photocatalytic CO2 Reduction. <b>2021</b> , 2839-2874	

573	Au clusters-based visible light photocatalysis. <b>2021</b> , 47, 29-50	4
572	Near-Infrared-Responsive Photocatalysts <b>2021</b> , 5, e2001042	30
571	Research Progress of Graphitic Nitride Hydrogels for Photocatalytic Water Splitting. <b>2021</b> , 11, 305-314	
570	Engineering 2D Photocatalysts toward Carbon Dioxide Reduction. <b>2021</b> , 11, 2003159	41
569	Synthesis and CO2 photoreduction of two 3dlf heterometal Brganic frameworks.	0
568	Nanomaterials for photocatalytic and cold plasma-catalytic hydrogenation of CO2 to CO, CH4, and CH3OH. <b>2021</b> , 353-373	
567	Nanomaterials for photocatalytic reduction of carbon dioxide. <b>2021</b> , 211-238	
566	Nanostructured Photocatalysts for Degradation of Environmental Pollutants. <b>2021</b> , 823-863	
565	Nanomaterials for CO2 capture. <b>2021</b> , 21-30	0
564	Asymmetric Multipole Plasmon-Mediated Catalysis Shifts the Product Selectivity of CO Photoreduction toward C Products. <b>2021</b> , 13, 7248-7258	16
563	Inorganic Frustrated Lewis Pairs in Photocatalytic CO2 Reduction. <b>2021</b> , 5, 495-501	6
562	Recent Progress on Catalyst Development for CO2 Conversion into Value-Added Chemicals by Photo- and Electroreduction. <b>2021</b> , 335-360	O
561	Ultrafast Spectroscopic Techniques in Photocatalysis. <b>2021</b> , 377-397	
560	Quasi-1D Aligned Nanostructures for Solar-Driven Water Splitting Applications: Challenges, Promises, and Perspectives. <b>2021</b> , 5, 2000741	4
559	Recent advances in g-C3N4-based photocatalysts for reduction of CO2. <b>2021</b> , 675, 012181	
558	Biphasic Titania Derivatives of Titanium Metal-Organic Framework Nanoplates for High-Efficiency Photoreduction of Diluted CO2 to Methane. <b>2021</b> , 13, 2215-2221	8
557	Integrated S-Scheme Heterojunction of Amine-Functionalized 1D CdSe Nanorods Anchoring on Ultrathin 2D SnNb2O6 Nanosheets for Robust Solar-Driven CO2 Conversion. <b>2021</b> , 5, 2000805	88
556	Photophysical Properties and Redox Potentials of Photosensitizers for Organic Photoredox Transformations.	16

## (2021-2021)

555	Fabricating 2D/2D/2D heterojunction of graphene oxide mediated g-C3N4 and ZnV2O6 composite with kinetic modelling for photocatalytic CO2 reduction to fuels under UV and visible light. <b>2021</b> , 56, 9985-10007	6
554	High selective photocatalytic CO conversion into liquid solar fuel over a cobalt porphyrin-based metal-organic framework. <b>2021</b> , 20, 391-399	3
553	Engineering approach toward catalyst design for solar photocatalytic CO2 reduction: A critical review. <b>2021</b> , 45, 9895-9913	7
552	Surface Plasmonic Resonance and Z-Scheme Charge Transport Synergy in Three-Dimensional Flower-like AgteO2InO Heterostructures for Highly Improved Photocatalytic CO2 Reduction. <b>2021</b> , 4, 3544-3554	16
551	Low-Dimensional Nanostructured Photocatalysts for Efficient CO2 Conversion into Solar Fuels. <b>2021</b> , 11, 418	5
550	Photocatalytic CO2 Reduction. <b>2021</b> , 243-267	
549	Artificial Photosynthesis and Solar Fuels. <b>2021</b> , 7-39	
548	Reactors, Fundamentals, and Engineering Aspects for Photocatalytic and Photoelectrochemical Systems. <b>2021</b> , 419-447	
547	In2O3/In2S3 Heterostructures Derived from In-MOFs with Enhanced Visible Light Photocatalytic Performance for CO2 Reduction. <b>2021</b> , 6, 2508-2515	5
546	BiVO4 Microplates with Oxygen Vacancies Decorated with Metallic Cu and Bi Nanoparticles for CO2 Photoreduction. <b>2021</b> , 4, 3576-3585	8
545	Polymeric Carbon Nitride-Derived Photocatalysts for Water Splitting and Nitrogen Fixation. <b>2021</b> , 17, e2005149	15
544	Enhanced Photocatalytic CO Reduction with Photothermal Effect by Cooperative Effect of Oxygen Vacancy and Au Cocatalyst. <b>2021</b> , 13, 14221-14229	13
543	Efficient CO2 to X Transformation with Metal Organic Framework Catalysts. <b>2021</b> , 24, 67-95	
542	Marigold shaped mesoporous composites Bi2S3/Ni(OH)2 with n-n heterojunction for high efficiency photocatalytic hydrogen production from water decomposition. <b>2021</b> , 766, 138337	10
541	Bifunctional Ag-Decorated CeO Nanorods Catalysts for Promoted Photodegradation of Methyl Orange and Photocatalytic Hydrogen Evolution. <b>2021</b> , 11,	4
540	The Roles of Polyoxometalates in Photocatalytic Reduction of CO2. <b>2021</b> , 21, 100760	4
539	Verification of impurity-related photocatalytic activity of insulating oxide supports. <b>2021</b> , 152, 106286	0
538	Engineered Graphitic Carbon Nitride-Based Photocatalysts for Visible-Light-Driven Water Splitting: A Review. <b>2021</b> , 35, 6504-6526	46

537	Highly oriented MoS2@CdIn2S4 nanostructures for efficient solar fuel generation. 2021, 26, 100682	2
536	An Overview of the Recent Progress in Polymeric Carbon Nitride Based Photocatalysis. <b>2021</b> , 21, 1811-1844	15
535	Recent Advances in TiO-Based Heterojunctions for Photocatalytic CO Reduction With Water Oxidation: A Review. <b>2021</b> , 9, 637501	9
534	Highly efficient and selective photoreduction of CO to CO with nanosheet g-CN as compared with its bulk counterpart. <b>2021</b> , 195, 110880	3
533	Facile Construction of a Hollow In2S3/Polymeric Carbon Nitride Heterojunction for Efficient Visible-Light-Driven CO2 Reduction. <b>2021</b> , 9, 5942-5951	10
532	Toward efficient photocatalysts for light-driven CO2 reduction: TiO2 nanostructures decorated with perovskite quantum dots. <b>2021</b> , 2, 020003	Ο
531	Ni-based catalysts derived from layered-double-hydroxide nanosheets for efficient photothermal CO2 reduction under flow-type system. 1	15
530	Defect engineering of photocatalysts for solar-driven conversion of CO2 into valuable fuels. <b>2021</b> , 50, 358-358	10
529	Two-Dimensional Metal Halide Perovskite Nanosheets for Efficient Photocatalytic CO2 Reduction. <b>2021</b> , 5, 2100263	11
528	Interplay Between Charge Accumulation and Oxygen Reduction Catalysis in Nanostructured TiO2 Electrodes Functionalized with a Molecular Catalyst. <b>2021</b> , 8, 2640-2648	1
527	A step-by-step synergistic stripping approach toward ultra-thin porous g-CN nanosheets with high conduction band position for photocatalystic CO reduction. <b>2021</b> , 589, 179-186	16
526	Rational Design of Cobaltate MCo2O4[Hierarchical Nanomicrostructures with Bunch of Oxygen Vacancies toward Highly Efficient Photocatalytic Fixing of Carbon Dioxide. <b>2021</b> , 125, 9782-9794	5
525	Surface Defect Engineering of CsPbBr3 Nanocrystals for High Efficient Photocatalytic CO2 Reduction. <b>2021</b> , 5, 2100154	14
524	Modeling Adsorption and Optical Properties for the Design of CO Photocatalytic Metal-Organic Frameworks. <b>2021</b> , 26,	1
523	Noble-Metal-Free Bi/g-C3N4 Nanohybrids for Efficient Photocatalytic CO2 Reduction under Simulated Irradiation. <b>2021</b> , 35, 10102-10112	13
522	Construction of columnar cactus-like 2D/1D CdxCu1-xS@CuO shell-core structure photocatalyst for the reduction of CO2 to methanol. <b>2021</b> , 115, 111016	3
521	Enhanced photocatalytic CO2 reduction over direct Z-scheme NiTiO3/g-C3N4 nanocomposite promoted by efficient interfacial charge transfer. <b>2021</b> , 412, 128646	35
520	Efficient Photocatalytic CO2 Reformation of Methane on Ru/La-g-C3N4 by Promoting Charge Transfer and CO2 Activation**. <b>2021</b> , 5, 748-757	2

519	Review on Bismuth-Based Photocatalyst for CO2 Conversion. <b>2021</b> , 7, 684-698	9
518	Hot Electrons in TiO-Noble Metal Nano-Heterojunctions: Fundamental Science and Applications in Photocatalysis. <b>2021</b> , 11,	15
517	Electrochemical Generation of Hydrogen and Methanol using ITO Sheet Decorated with Modified-Titania as Electrode. <b>2021</b> , 16, 430-439	1
516	A review on recent developments in solar photoreactors for carbon dioxide conversion to fuels. <b>2021</b> , 47, 101515	17
515	Graphene coupled TiO photocatalysts for environmental applications: A review. <b>2021</b> , 271, 129506	38
514	Defect Engineering of Photocatalysts towards Elevated CO Reduction Performance. <b>2021</b> , 14, 2635-2654	5
513	Acidification of La loaded TiO2 for photocatalytic conversion of CO2. <b>2021</b> , 293, 129709	2
512	Enhanced Charge Separation in NiO and Pd Co-Modified TiO2 Photocatalysts for Efficient and Selective Photoreduction of CO2. <b>2021</b> , 4, 6324-6332	7
511	Light-driven reduction of carbon dioxide: Altering the reaction pathways and designing photocatalysts toward value-added and renewable fuels. <b>2021</b> , 237, 116547	11
510	Extraterrestrial artificial photosynthetic materials for resource utilization. <b>2021</b> , 8, nwab104	5
509	Photocatalytic CO2 Reduction and Beyond. <b>2021</b> , 287-302	
508	Effect of TiO2 coating on the surface condition and corona characteristics of positive DC conductors with particle matters.	2
507	Z-Scheme CoreBhell meso-TiO2@ZnIn2S4/Ti3C2 MXene Enhances Visible Light-Driven CO2-to-CH4 Selectivity. <b>2021</b> , 60, 8720-8732	10
506	Artificial Photosynthesis over Metal Halide Perovskites: Achievements, Challenges, and Prospects. <b>2021</b> , 12, 5864-5870	15
505	Proton-Coupled Electron Transfer in Electrochemical Alanine Formation from Pyruvic Acid: Mechanism of Catalytic Reaction at the Interface between TiO2 (101) and Water. <b>2021</b> , 125, 12603-12613	4
504	Functionalized Nanomaterials for Catalytic Application: Trends and Developments. 2021, 355-415	O
503	Metal-free Photocatalysts. <b>2021</b> , 245-268	
502	Z-scheme g-C3N4 nanosheet photocatalyst decorated with mesoporous CdS for the photoreduction of carbon dioxide. <b>2021</b> , 47, 17210-17219	13

501	Review and prospects of microporous zeolite catalysts for CO2 photoreduction. <b>2021</b> , 23, 101042	9
500	Boosting light-driven CO reduction into solar fuels: Mainstream avenues for engineering ZnO-based photocatalysts. <b>2021</b> , 197, 111134	13
499	Greenhouse-inspired supra-photothermal CO2 catalysis. <b>2021</b> , 6, 807-814	36
498	The Z-scheme g-C3N4/3DOM-WO3 photocatalysts with enhanced activity for CO2 photoreduction into CO. <b>2021</b> , 33, 939-939	5
497	Photoelectrocatalytic Degradation of Organic Compounds on Nanoscale Semiconductor Materials. <b>2021</b> , 57, 699-712	О
496	Mechanical, Structural and Electronic Properties of CO Adsorbed Graphitic Carbon Nitride (g-CN) under Biaxial Tensile Strain. <b>2021</b> , 14,	1
495	Ordered Macroporous Carbonous Frameworks Implanted with CdS Quantum Dots for Efficient Photocatalytic CO Reduction. <b>2021</b> , 33, e2102690	47
494	Self-assembled g-C3N4 nanotubes/graphdiyne composite with enhanced photocatalytic CO2 reduction. <b>2021</b> , 868, 159045	13
493	Activation of CO2 on graphitic carbon nitride supported single-atom cobalt sites. 2021, 415, 128982	23
492	Achieving simultaneous Cu particles anchoring in meso-porous TiO2 nanofabrication for enhancing photo-catalytic CO2 reduction through rapid charge separation. <b>2021</b> ,	10
491	Porous Silicon Carbide (SiC): A Chance for Improving Catalysts or Just Another Active-Phase Carrier?. <b>2021</b> , 121, 10559-10665	12
490	Z-scheme Bi/AgBiS2/P25 for enhanced CO2 photoreduction to CH4 and CO with photo-themal synergy. <b>2021</b> , 555, 149648	1
489	Visible Light-Responsive N-Doped TiO2 Photocatalysis: Synthesis, Characterizations, and Applications. 1	7
488	Solar-driven conversion of carbon dioxide over nanostructured metal-based catalysts in alternative approaches: Fundamental mechanisms and recent progress. <b>2021</b> , 202, 111781	2
487	Highly Selective Photocatalytic Conversion of Carbon Dioxide by Water over Al-SrTiO3 Photocatalyst Modified with SilverMetal Dual Cocatalysts. <b>2021</b> , 9, 9327-9335	7
486	Recent progress and perspectives in heterogeneous photocatalytic CO2 reduction through a solidgas mode. <b>2021</b> , 438, 213906	25
485	Synthesis, structure, and selected photocatalytic applications of graphitic carbon nitride: a review. <b>2021</b> , 32, 18512-18543	6
484	A Hybrid Ru(II)/TiO Catalyst for Steadfast Photocatalytic CO to CO/Formate Conversion Following a Molecular Catalytic Route. <b>2021</b> , 60, 10235-10248	3

483	Improvement of CO2 Photoreduction Efficiency by Process Intensification. 2021, 11, 912	1
482	Independent Cr2O3 functions as efficient cocatalyst on the crystal facets engineered TiO2 for photocatalytic CO2 reduction. <b>2021</b> , 554, 149634	8
481	Highly Efficient Photocatalytic CO Reduction in Two-Dimensional Ferroelectric CuInPS Bilayers. <b>2021</b> , 13, 34486-34494	11
480	A review on CaTiO3 photocatalyst: Activity enhancement methods and photocatalytic applications. <b>2021</b> , 388, 274-304	10
479	A sustainable molybdenum oxysulphide-cobalt phosphate photocatalyst for effectual solar-driven water splitting <b>2022</b> , 36, 15-26	4
478	Efficient Hole Trapping in Carbon Dot/Oxygen-Modified Carbon Nitride Heterojunction Photocatalysts for Enhanced Methanol Production from CO2 under Neutral Conditions. <b>2021</b> , 133, 20979-209	84
477	A molecular approach to the synthesis of platinum-decorated mesoporous graphitic carbon nitride as selective CO2 reduction photocatalyst. <b>2021</b> , 50, 101574	4
476	Efficient Hole Trapping in Carbon Dot/Oxygen-Modified Carbon Nitride Heterojunction Photocatalysts for Enhanced Methanol Production from CO under Neutral Conditions. <b>2021</b> , 60, 20811-20816	30
475	MoS2Nanosheets-Based Catalysts for Photocatalytic CO2 Reduction: A Review. <b>2021</b> , 4, 8644-8667	16
474	2D Covalent Organic Frameworks with Incorporated Mn Complex for Light Driven CO2 Reduction.	1
473	A visible light-response flower-like La-doped BiOBr nanosheets with enhanced performance for photoreducing CO2 to CH3OH. <b>2021</b> , 418, 129286	21
472	FeP modified polymeric carbon nitride as a noble-metal-free photocatalyst for efficient CO2 reduction. <b>2021</b> , 156, 106326	4
471	Technological Innovations in Photochemistry for Organic Synthesis: Flow Chemistry, High-Throughput Experimentation, Scale-up, and Photoelectrochemistry. <b>2021</b> ,	59
470	Nanocomposite catalyst of graphitic carbon nitride and Cu/Fe mixed metal oxide for electrochemical CO2 reduction to CO. <b>2021</b> , 291, 120052	24
469	Remarkable CO2 photoreduction activity using TiO2 nanotube arrays under favorable photothermal conditions driven by concentrated solar light. <b>2021</b> , 119, 123906	3
468	Shedding Light on the Role of Chemical Bond in Catalysis of Nitrogen Fixation. <b>2021</b> , 33, e2007891	6
467	Hierarchical Double-Shelled CoP Nanocages for Efficient Visible-Light-Driven CO Reduction. <b>2021</b> , 13, 45609-45618	7
466	The Role of Metals in Nanocomposites for UV and Visible Light-Active Photocatalysis. <b>2022</b> , 307-335	Ο

465	Visible Range Activated Metal Oxide Photocatalysts in New and Emerging Energy Applications. <b>2022</b> , 787-815	1
464	Light-driven catalytic conversion of CO2 with heterogenized molecular catalysts based on fourth period transition metals. <b>2021</b> , 443, 214018	9
463	In-situ growth of PbI2 on ligand-free FAPbBr3 nanocrystals to significantly ameliorate the stability of CO2 photoreduction. <b>2021</b> ,	1
462	Wastewater treatment with the advent of TiO2 endowed photocatalysts and their reaction kinetics with scavenger effect. <b>2021</b> , 338, 116479	7
461	CO reduction routes to value-added oxygenates: a review. <b>2021</b> , 28, 61929-61950	0
460	Development of Co3-xNixO4 materials for thermochemical energy storage at lower red-ox temperature. <b>2021</b> , 230, 111194	4
459	Zinc sulfide for photocatalysis: White angel or black sheep?. <b>2021</b> , 124, 100865	2
458	Ag/?-Fe2O3 nanowire arrays enable effectively photoelectrocatalytic reduction of carbon dioxide to methanol. <b>2021</b> , 507, 230272	2
457	Znin S -Based Photocatalysts for Energy and Environmental Applications <b>2021</b> , 5, e2100887	15
456	Functional nitrogen science based on plasma processing: Quantum devices, photocatalysts and activation of plant defense and immune systems.	1
455	Shining photocatalysis by gold-based nanomaterials. <b>2021</b> , 88, 106306	18
454	Selective liquid chemicals on CO2 reduction by energy level tuned rGO/TiO2 dark cathode with BiVO4 photoanode. <b>2021</b> , 295, 120267	4
453	Current and future perspectives on catalytic-based integrated carbon capture and utilization. <b>2021</b> , 790, 148081	14
452	Van der waals heterostructures by single cobalt sites-anchored graphene and g-C3N4 nanosheets for photocatalytic syngas production with tunable CO/H2 ratio. <b>2021</b> , 295, 120261	15
451	One-step synthesis of porous BiOCl microflowers with oxygen vacancies for photoreduction of CO2 under visible light irradiation. <b>2021</b> , 132, 108815	1
450	TiO2 Facet-dependent reconstruction and photocatalysis of CuOx/TiO2 photocatalysts in CO2 photoreduction. <b>2021</b> , 564, 150407	12
449	Advances in structural modification of perovskite semiconductors for visible light assisted photocatalytic CO2 reduction to renewable solar fuels: A review. <b>2021</b> , 9, 106264	15
448	Environmental phosphorylationDoosting photocatalytic CO2 reduction over polymeric carbon nitride grown on carbon paper at air-liquid-solid joint interfaces. <b>2021</b> , 42, 1667-1676	6

447	Synergistic effects of surface Lewis Base/Acid and nitrogen defect in MgAl layered double Oxides/Carbon nitride heterojunction for efficient photoreduction of carbon dioxide. <b>2021</b> , 563, 150369	3
446	Metal modified carbon-based electrode for CO2 electrochemical reduction: A review. <b>2021</b> , 898, 115634	2
445	Construction of a Photo-thermal-magnetic coupling reaction system for enhanced CO2 reduction to CH4. <b>2021</b> , 421, 129940	3
444	Recent advances in crystalline carbon nitride for photocatalysis. <b>2021</b> , 91, 224-240	15
443	Improved photocatalytic activity of ZnO via the modification of In2O3 and MoS2 surface species for the photoreduction of CO2. <b>2021</b> , 566, 150649	2
442	Assessment of CO2 photoconversion over TiO2/La2O3 treated with acetic acid. <b>2021</b> , 303, 130466	О
441	CuxO modified La2Sn2O7 photocatalyst with enhanced photocatalytic CO2 reduction activity. <b>2021</b> , 568, 150985	3
440	Fabrication of trimodal porous silica/g-C3N4 nanotubes for efficient visible light photocatalytic reduction of CO2 to ethanol. <b>2021</b> , 426, 130877	4
439	Polymeric carbon nitride with internal n-p homojunctions for efficient photocatalytic CO2 reduction coupled with cyclohexene oxidation. <b>2021</b> , 298, 120568	11
438	Optional construction of Cu2O@Fe2O3@CC architecture as a robust multifunctional photoelectronic catalyst for overall water splitting and CO2 reduction. <b>2021</b> , 426, 131192	9
437	Recent advances in the possible electrocatalysts for the electrochemical reduction of carbon dioxide into methanol. <b>2021</b> , 887, 161449	4
436	Perovskite-type lanthanum ferrite based photocatalysts: Preparation, properties, and applications. <b>2022</b> , 66, 314-338	21
435	Opportunities and challenges in CO utilization 2022, 113, 322-344	15
434	Insight into mechanism of divalent metal cations with different d-bands classification in layered double hydroxides for light-driven CO2 reduction. <b>2022</b> , 427, 130863	4
433	InVO4-based photocatalysts for energy and environmental applications. 2022, 428, 131145	7
432	Design and fabrication of a CdS QDs/Bi2WO6 monolayer S-scheme heterojunction configuration for highly efficient photocatalytic degradation of trace ethylene in air. <b>2022</b> , 429, 132241	9
431	Photocatalytic reduction of CO2 in hydrocarbon: A greener approach for energy production. <b>2021</b> , 871-915	О
430	Fundamentals of Photocatalysis for Energy Conversion. <b>2021</b> , 5-17	

429	Transition metal chalcogenideBased photocatalysts for small-molecule activation. 2021, 297-331	1
428	Visible-light-driven photocatalytic degradation of RhB by carbon-quantum-dot-modified g-C3N4 on carbon cloth. <b>2021</b> , 23, 4782-4790	1
427	One-step aerosol synthesis of a double perovskite oxide (KBaTeBiO) as a potential catalyst for CO photoreduction. <b>2021</b> , 13, 11963-11975	0
426	Efficacious CO Photoconversion to C2 and C3 Hydrocarbons on Upright SnS-SnS Heterojunction Nanosheet Frameworks. <b>2021</b> , 13, 4984-4992	5
425	Porphyrin and single atom featured reticular materials: recent advances and future perspective of solar-driven CO2 reduction.	8
424	Introduction. <b>2021</b> , 1-4	
423	Heterogeneous photocatalysis: Z-scheme based heterostructures. <b>2021</b> , 1-38	
422	All-solid-state Z-scheme systems for photocatalytic CO2 reduction. <b>2021</b> , 219-255	
421	Research Progress of Photocatalytic CO2 Reduction Based on Two-dimensional Materials. <b>2021</b> , 79, 10	8
420	Crystalline two-dimensional organic porous polymers (covalent organic frameworks) for photocatalysis. <b>2021</b> , 505-521	
419	Plasmon-assisted photocatalytic CO reduction on Au decorated ZrO catalysts. <b>2021</b> , 50, 6076-6082	4
418	Recent advances in zinc chalcogenide-based nanocatalysts for photocatalytic reduction of CO2.	4
417	Increment in Photocatalytic Activity of g-C3N4 Coupled Sulphides and Oxides for Environmental Remediation. <b>2020</b> , 159-192	1
416	Processes at Semiconductor Electrodes. <b>1983</b> , 529-592	32
415	Photocatalytic Water Splitting and Carbon Dioxide Reduction. <b>2015</b> , 1-39	2
414	Interfacial Charge Transfer Reactions in Colloidal Dispersions and Their Application to Water Cleavage by Visible Light. <b>1983</b> , 83-165	13
413	Organic Photoelectrochemistry. <b>1986</b> , 177-225	6
412	Encyclopedia of Sustainability Science and Technology. <b>2018</b> , 1-38	1

411	Transformation of CO2 into Valuable Chemicals. <b>2019</b> , 285-322	2
410	Photocatalytic Conversion of Carbon Dioxide into Hydrocarbons. <b>2020</b> , 133-163	3
409	Metal Oxide Nanocrystals and Their Properties for Application in Solar Cells. <b>2014</b> , 671-707	1
408	Reductive Conversion of Carbon Dioxide Using Various Photocatalyst Materials. <b>2014</b> , 225-244	3
407	Heterogeneous Photocatalysis with Semiconductor Particulate Systems. <b>1984</b> , 111-139	4
406	Photoland Electrochemical Reduction of Carbon Dioxide. <b>1987</b> , 113-138	4
405	Photocatalytic Organic Synthesis by Use of Semiconductors or Dyes. <b>1986</b> , 397-413	1
404	Semiconductor-Electrolyte Solar Cells for the Photoelectrochemical Reduction of Carbon Dioxide to Organic Fuel. <b>1979</b> , 682-689	7
403	World Production of Organic Matter. <b>1980</b> , 51-92	4
402	The influence of life on the evolution of the atmosphere. <b>1980</b> , 18, 89-100	6
401	PHOTOELECTROSYNTHESIS AT SEMICONDUCTOR ELECTRODES. 1981, 271-295	1
400	Semiconductor Particulate Systems for Photocatalysis and Photosynthesis: An Overview. <b>1983</b> , 217-260	10
399	Bifunctional Redox Catalysis: Synthesis and Operation in Water-Cleavage Reactions. <b>1983</b> , 261-296	5
398	Photosynthesis and Photocatalysis with Semiconductor Powders. <b>1983</b> , 331-358	14
397	Photochemical Fixation of Carbon Dioxide. <b>1983</b> , 507-534	16
396	Ball-flower like NiO/g-C3N4 heterojunction for efficient visible light photocatalytic CO2 reduction. <b>2018</b> , 237, 802-810	154
395	0D NiS2 quantum dots modified 2D g-C3N4 for efficient photocatalytic CO2 reduction. <b>2020</b> , 600, 124912	29
394	MOF-based materials for photo- and electrocatalytic CO2 reduction. <b>2020</b> , 2, 100033	96

393	Recent advances on TiO2-based photocatalytic CO2 reduction. <b>2020</b> , 2, 100044	19
392	Carbon dioxide reduction under visible light: a comparison of cadmium sulfide and titania photocatalysts. <b>2020</b> , 30, 192-194	9
391	Chapter 8:Nanocatalysts for CO2 Conversion. <b>2019</b> , 207-235	2
390	Synergetic effect of H adsorption and ethylene functional groups of covalent organic frameworks on the CO photoreduction in aqueous solution. <b>2020</b> , 56, 7261-7264	8
389	Industrial carbon dioxide capture and utilization: state of the art and future challenges. <b>2020</b> , 49, 8584-8686	184
388	From isolated Ti-oxo clusters to infinite Ti-oxo chains and sheets: recent advances in photoactive Ti-based MOFs. <b>2020</b> , 8, 15245-15270	143
387	Quantum-mechanical process of carbonate complex formation and large-scale anisotropy in the adsorption energy of CO2 on anatase TiO2 (001) surface. <b>2018</b> , 2,	4
386	Electronic Behavior of Calcined Material Obtained from a Tantalum-O-Phenylene-O Hybrid Copolymer. <b>2007</b> , 40, 1072-1075	1
385	Influence of Preparation Conditions of Coated TiO2 Film on CO2 Reforming Performance. <b>2007</b> , 33, 146-153	13
384	CO2-Reforming Performance of Coated TiO2 Film with Supported Metal. <b>2007</b> , 33, 432-438	7
383	Photochemical Conversion of CO2into Methyl Alcohol Using SiC Micropowder under UV Light. <b>2017</b> , 132, 479-483	5
382	Assessing the effect of light intensity and light wavelength spectra on the photoreduction of formic acid using a graphene oxide material. <b>2020</b> , 18,	2
381	Green Synthetic Fuels: Renewable Routes for the Conversion of Non-Fossil Feedstocks into Gaseous Fuels and Their End Uses. <b>2020</b> , 13, 420	32
380	Covalent Organic Frameworks: A Promising Materials Platform for Photocatalytic CO Reductions. <b>2020</b> , 25,	17
379	CO2 Reduction by Photocatalysis on TiO2. <b>2018</b> , 268-299	2
378	Visible Light Photoelectrocatalytic Degradation of Rhodamine B Using Ti/TiO2-NiO Photoanode. <b>2014</b> , 05, 1630-1640	11
377	Effects of Co3O4 Cocatalyst on InTaO4 for Photocatalytic Reduction of CO2 to CH3OH under Visible Light Irradiation. <b>2019</b> , 08, 39-49	2
376	Photocatalytic Behavior of WO3/TiO2in Decomposing Volatile Aldehydes. <b>2008</b> , 29, 494-496	15

375	Heterojunction of FeOOH and TiO2for the Formation of Visible Light Photocatalyst. 2009, 30, 2613-2616	31
374	Coupling of W-Doped SnO2and TiO2for Efficient Visible-Light Photocatalysis. <b>2014</b> , 35, 913-918	7
373	Photocatalytic conversion of CO2into hydrocarbon fuels with standard titania (Degussa P25) using newly installed experimental setup. <b>2013</b> , 2, 64-66	13
372	CO2Conversion with Light and Water by GaN Photoelectrode. <b>2012</b> , 51, 02BP07	19
371	Stepping toward the carbon circular economy (CCE): Integration of solar chemistry and biosystems for an effective CO2 conversion into added value chemicals and fuels. <b>2021</b> , 78, 289-351	3
370	Photochemical CO2 conversion on pristine and Mg-doped gallium nitride (GaN): a comprehensive DFT study based on a cluster model approach.	O
369	g-C3N4/CoNiFe-LDH Z-scheme heterojunction for efficient CO2 photoreduction and MB dye photodegradation. <b>2021</b> , 11, 7727-7739	3
368	Machine Learning in Screening High Performance Electrocatalysts for CO Reduction <b>2021</b> , 5, e2100987	8
367	Atomic-level insights into surface engineering of semiconductors for photocatalytic CO2 reduction. <b>2021</b> ,	6
366	Enhanced photocatalytic and photodynamic activity of chitosan and garlic loaded CdO-TiO hybrid bionanomaterials. <b>2021</b> , 11, 20790	O
365	Advances and Promises of 2D MXenes as Cocatalysts for Artificial Photosynthesis. <b>2021</b> , 5, 2100603	4
364	Molecular grafting based polymeric carbon nitride for wondrous artificial photosynthesis.	4
363	Evaluation of photodegradation performance by paper microzones. <b>2022</b> , 806, 150916	2
362	CO2 to green fuel: Photocatalytic process optimization study. <b>2021</b> , 24, 100533	1
361	Novel Intelligent Particle Design for CO2 Fixation Using TiO2 Combined with Biocatalyst. <b>2004</b> , 12, 20-26	
360	Electrochemical Synthesis of TiO2Photocatalyst with Anodic Porous Alumina. <b>2007</b> , 17, 593-600	1
359	Recent Development of Carbon Dioxide Conversion Technology. <b>2012</b> , 18, 229-249	2
358	Chalcogenides and Other Non-oxidic Semiconductors. <b>2013</b> , 157-169	

357	Turning Sunlight into Fuels: Photocatalysis for Energy. <b>2013</b> , 67-84	
356	From Ionizing Radiation to Photosynthesis. <b>2014</b> , 383-432	1
355	THE OPTIMIZATION OF SOLAR CONVERSION DEVICES. <b>1980</b> , 619-664	
354	Applications of Semiconductor Electrodes. <b>1980</b> , 335-357	1
353	Photoreduction of carbon dioxide to formate and photo-oxidation of carbon monoxide to carbon dioxide by the use of transition metal complexes and visible light. <b>1990</b> , 79-100	
352	Electrochemical Reduction of Carbon Dioxide. <b>1992</b> , 381-396	
351	Functionalized photoelectrochemistry. <b>1994</b> , 485-493	
350	Solar-driven combined mitigation of CO2 greenhouse effect utilisation and storage by photocatalysis. <b>1999</b> , 1011-1016	
349	Photocatalytic application of Z-type system. <b>2015</b> , 64, 094209	4
348	Photocatalysis in Conversion of Greenhouse Gases. 271-284	
347	Introduction. <b>2017</b> , 1-16	
346	Chapter 15 Artificial Photosynthesis. <b>2016</b> , 241-262	
345	Chapter 14 Reduction of Carbon Dioxide. <b>2016</b> , 221-240	
344	7 Photocatalytic CO2 Reduction to Fuels. <b>2016</b> , 141-162	
343	Methanol sensor for integration with GaP nanowire photocathode. 2017,	
342	Hybrid Nanostructures. <b>2017</b> , 4, 1-3	
341	Synthesis of Electrocatalysts for Electrochemistry in Energy. 2018, 300-385	
340	Boosted CO2 reduction using ultra-thin TiO2 photocatalyst films on nanocavities. 2019,	

339 5.????????????????? **2019**, 87, 25-30

338	Photobiocatalysis: At the Interface of Photocatalysis and Biocatalysts. <b>2020</b> , 187-209	
337	Photo-/Electro-catalytic Applications of Visible Light-Responsive Porous Graphitic Carbon Nitride Toward Environmental Remediation and Solar Energy Conversion. <b>2020</b> , 211-246	0
336	Artificial Photosynthesis with Titania Photocatalysts. <b>2019</b> , 2, 1-15	
335	Van der Waals Heterostructures in Photocatalytic Energy Conversion. <b>2022</b> , 225-274	
334	Enhanced light-driven CO reduction on metal-free rich terminal oxygen-defects carbon nitride nanosheets. <b>2021</b> , 608, 2505-2505	1
333	Effect of Zn in Ag-Loaded Zn-Modified ZnTa2O6 for Photocatalytic Conversion of CO2 by H2O. <b>2021</b> , 125, 1304-1312	1
332	Role of Photocatalysis in Green Energy Production. <b>2022</b> , 590-596	O
331	A review on progress and perspective of molecular catalysis in photoelectrochemical reduction of CO2. <b>2022</b> , 451, 214271	11
330	Artificial leaf for light-driven CO2 reduction: Basic concepts, advanced structures and selective solar-to-chemical products. <b>2022</b> , 430, 133031	14
329	Metal-free four-in-one modification of g-C3N4 for superior photocatalytic CO2 reduction and H2 evolution. <b>2022</b> , 430, 132853	7
328	Photocatalytic Systems for Carbon Dioxide Conversion to Hydrocarbons. <b>2020</b> , 63-89	
327	Nanostructured Semiconductors for Photocatalytic CO2 Reduction. <b>2020</b> , 1-36	
326	2D/2D Heterostructure of Metal-Free Ultrathin Graphdiyne/Carbon Nitride Nanosheets for Enhanced Photocatalytic Reduction of Carbon Dioxide with Water.	O
325	A Review of Recent Progress on Photocatalytic Carbon dioxide Reduction into Sustainable Energy Products using Carbon Nitride. <b>2021</b> ,	5
324	Designing and fabricating a CdS QDs/BiMoO monolayer S-scheme heterojunction for highly efficient photocatalytic CH degradation under visible light. <b>2021</b> , 127685	6
323	Photocatalytic CO2 reduction with water vapor to CO and CH4 in a recirculation reactor by Ag-Cu2O/TiO2 Z-scheme heterostructures. <b>2022</b> , 896, 163030	6
322	Efficient strategies for boosting the performance of 2D graphitic carbon nitride nanomaterials during photoreduction of carbon dioxide to energy-rich chemicals. <b>2022</b> , 23, 100605	2

321	Catalytic reduction of carbon dioxide over two-dimensional boron monolayer. <b>2022</b> , 110, 96-102	2
320	Research Progress on CO2 Photocatalytic Reduction with Full Solar Spectral Responses.	6
319	Carbon Derivatives from CO2. <b>2022</b> , 285-296	
318	Visible-light driven boosting electron-hole separation in CsPbBr QDs@2D Cu-TCPP heterojunction and the efficient photoreduction of CO. <b>2021</b> ,	2
317	Impacts of the Catalyst Structures on CO Activation on Catalyst Surfaces 2021, 11,	8
316	Nitric acid-assisted growth of InVO4 nanobelts on protonated ultrathin C3N4 nanosheets as an S-scheme photocatalyst with tunable oxygen vacancies for boosting CO2 conversion. <b>2021</b> , 434, 133867	4
315	Carbon Dioxide Conversion Methods. <b>2022</b> , 221-228	
314	Pivotal Role of Holes in Photocatalytic CO Reduction on TiO. <b>2021</b> , 27, 17213-17219	O
313	Advances in photoelectroreduction of CO2 to hydrocarbons fuels: Contributions of functional materials. <b>2021</b> , 55, 101810	4
312	Layered g-C3N4/TiO2 nanocomposites for efficient photocatalytic water splitting and CO2 reduction: A review. <b>2021</b> , 23, 100904	7
311	Effect of ionic liquid in a pressurized reactor to enhance CO2 photocatalytic reduction at TiO2 modified by gold nanoparticles. <b>2021</b> ,	0
310	Preparation of CdS@TiO2/Ni2P photocatalyst for value-added organic transformation coupling with enhanced hydrogen evolution. <b>2021</b> , 4, 100035	O
309	Preparation and Application of NbO Nanofibers in CO Photoconversion 2021, 11,	1
308	Luminescent Carbon Dots for Environmental Photocatalytic. <b>2022</b> , 201-228	
307	Photofixation of carbon dioxide in semiconductor particulate and microbial systems. <b>1992</b> , 104, 747-752	4
306	Photocatalytic reaction mechanisms at the gasBolid interface for environmental and energy applications. <b>2021</b> , 11, 7807-7839	3
305	Definition of photocatalysis: Current understanding and perspectives. <b>2022</b> , 33, 100580	3
304	Open-Framework Chalcogenide Materials - from isolated clusters to highly ordered structures - and their photocalytic applications. <b>2022</b> , 453, 214243	3

303	Recent advances in photoelectrocatalysis for environmental applications: Sensing, pollutants removal and microbial inactivation. <b>2022</b> , 454, 214341	11
302	Surface oxygen vacancy and graphene quantum dots co-modified Bi2WO6 toward highly efficient photocatalytic reduction of CO2. <b>2022</b> , 305, 121026	8
301	In Situ Generating CsPbBr3 Nanocrystals on O-defective WO3 as Z-scheme and NIR-responsive Heterojunctions for Photocatalytic CO2 Reduction <b>2021</b> ,	7
300	Research progress on photocatalytic reduction of CO based on LDH materials 2022,	12
299	Graphitic carbon nitride for photocatalytic CO2 reduction. <b>2022</b> , 69-96	
298	SynthesisActivity Correlations Established for TiO2 Based Photocatalysts. <b>2022</b> , 753-789	
297	Theoretical Study on Photocatalytic CO2 Reduction to CO and CH4 over M(II)2M(III/IV)-Layered Double Hydroxides. <b>2022</b> , 126, 1356-1365	2
296	Graphitic carbon nitride (gt3N4)Based semiconductor as a beneficial candidate in photocatalysis diversity. <b>2022</b> , 47, 5142-5191	9
295	Industrial problems and solution towards visible light photocatalysis. <b>2022</b> , 535-567	О
294	High-Efficiency g-C3N4 Based Photocatalysts for CO2 Reduction: Modification Methods. 1	4
293	Morphology and element doping effects: phosphorus-doped hollow polygonal g-C3N4 rods for visible light-driven CO2 reduction. <b>2022</b> , 46, 3017-3025	O
292	Reduction of CO 2 to Formic Acid. <b>2022</b> , 1003-1026	Ο
291	Role of processing parameters in solution routes for controlling size, shape, and morphology of chalcogenide nanoparticles. <b>2022</b> , 99-130	
290	Electric Field Coupling in the S-Scheme CdS/BiOCl Heterojunction for Boosted Charge Transport toward Photocatalytic CO2 Reduction. <b>2022</b> , 5, 1149-1158	3
289	A critical review on the development of metal-organic frameworks for boosting photocatalysis in the fields of energy and environment. <b>2022</b> , 333, 130164	4
288	Photocatalytic Reduction of Carbon Dioxide on TiO Heterojunction Photocatalysts-A Review <b>2022</b> , 15,	2
287	Strategies for improving the photocatalytic performance of metal-organic frameworks for CO2 reduction: A review. <b>2023</b> , 125, 290-308	5
286	Photocatalytic CO 2 Reduction. <b>2022</b> , 541-567	

285	Efficient CO2 reduction over a Ru-pincer complex/TiO2 hybrid photocatalyst via direct Z-scheme mechanism.	1
284	Current status, research gaps, and future scope for nanomaterials toward visible light photocatalysis. <b>2022</b> , 569-608	
283	Photoelectrochemical conversion of CO2 using nanostructured PbSBi Photocathode. <b>2022</b> , 52, 835	О
282	Dynamic Interface with Enhanced Visible-Light Absorption and Electron Transfer for Direct Photoreduction of Flue Gas to Syngas <b>2022</b> ,	1
281	Understanding the Influence of C-Doping on CO2 Photoreduction at SnS2 Nanosheets: A First-Principles Study. <b>2022</b> , 126, 1271-1280	О
280	Atom manufacturing of photocatalyst towards solar COreduction 2022,	O
279	Organic amine surface modified one-dimensional CdSe0.8S0.2-diethylenetriamine/two-dimensional SnNb2O6 S-scheme heterojunction with promoted visible-light-driven photocatalytic CO2 reduction. <b>2022</b> , 43, 255-264	18
278	Selective photocatalytic reduction of CO2 to syngas over tunable metal-perovskite interface 2022,	О
277	Synthesis of bismuth oxybromochloroiodide/graphitic carbon nitride quaternary composites (BiOxCly/BiOmBrn/BiOpIq/g-C3N4) enhances visible-light-driven photocatalytic activity. <b>2022</b> , 163, 106418	2
276	Copper decorated indium oxide rods for photocatalytic CO2 conversion under simulated sun light. <b>2022</b> , 58, 101909	O
275	Facile layer regulation strategy of layered double hydroxide nanosheets for artificial photosynthesis and mechanism insight. <b>2022</b> , 434, 134434	3
274	Highly stable LaCoO3 perovskite supported g-C3N4 nanotextures with proficient charges migration for visible light CO2 photoreduction to CO and CH4. <b>2022</b> , 142, 106517	1
273	Graphene aerogel-based NiAl-LDH/g-C3N4 with ultratight sheet-sheet heterojunction for excellent visible-light photocatalytic activity of CO2 reduction. <b>2022</b> , 306, 121065	13
272	Size-dependent selectivity and activity of highly dispersed sub-nanometer Pt clusters integrated with P25 for CO2 photoreduction into methane fuel. <b>2022</b> , 584, 152532	1
271	Chapter 2. Opportunities for Ultrathin 2D Catalysts in Promoting CO2 Photoreduction. <b>2022</b> , 65-149	
270	Interfacial Electronic Properties and Photocatalytic CO2 Reduction of a Z-Scheme SnS/(CH3NH3)2AgBiI6 Double Perovskite Heterostructure.	2
269	ZnSe Nanorods-CsSnCl Perovskite Heterojunction Composite for Photocatalytic CO Reduction <b>2022</b> ,	20
268	Ultrafast charge transfer dynamics in 2D covalent organic frameworks/Re-complex hybrid photocatalyst <b>2022</b> , 13, 845	6

267	Construction of 2D MoS2@ZnO heterojunction as superior photocatalyst for highly efficient and selective CO2 conversion into liquid fuel. <b>2022</b> , 10, 107337	O
266	Advances in Tio2-Based Photocatalytic Systems for Co2 Reduction Using Solar Energy.	
265	Versatile Metal®rganic Frameworks: Perspectives on Contribution in Reaction Catalysis and Applications. <b>2022</b> , 183-204	
264	Fabrication of p-type silicon nanowire array based photoelectrodes for the efficient photoelectrocatalytic reduction of CO2 to fuels and chemicals.	O
263	Recent Progress and Challenges in Plasmon-Mediated Reduction of CO 2 to Chemicals and Fuels. 2102383	4
262	Advances for CO2 Photocatalytic Reduction in Porous Ti-Based Photocatalysts.	5
261	Recent Progress in Two-Dimensional Materials for Electrocatalytic CO2 Reduction. 2022, 12, 228	O
260	A Hybrid Assembly with Nickel Poly-pyridine Polymer on CdS QDs for Photo-reducing CO2 into Syngas with Controlled H2/CO Ratios <b>2022</b> ,	1
259	Research Progress in Semiconductor Materials with Application in the Photocatalytic Reduction of CO2. <b>2022</b> , 12, 372	1
258	The Prospects of Clay Minerals from the Baltic States for Industrial-Scale Carbon Capture: A Review. <b>2022</b> , 12, 349	7
257	Bandgap engineering and oxygen vacancies of Ni $\times$ V 2 O 5+ $\times$ ( $\times$ =1, 2, 3) for efficient visible light-driven CO 2 to CO with nearly 100% selectivity.	0
256	Multi-field driven hybrid catalysts for CO2 reduction: Progress, mechanism and perspective. 2022,	2
255	Photocatalytic CO Reduction Using TiO-Based Photocatalysts and TiO Z-Scheme Heterojunction Composites: A Review <b>2022</b> , 27,	1
254	Tailoring Inorganic Halide Perovskite Photocatalysts toward Carbon Dioxide Reduction. 2101058	4
253	Construction of heterostructured Sn/TiO2/Si photocathode for efficient photoelectrochemical CO2 reduction <b>2022</b> ,	1
252	Self-Supported Three-Dimensional Quantum Dot Aerogels as a Promising Photocatalyst for CO2 Reduction. <b>2022</b> , 34, 2687-2695	1
251	Visible Light-Driven Highly Selective CO Reduction to CH Using Potassium-Doped g-CN 2022,	4
250	Ultrathin Nanosheet Assembled Multishelled Superstructures for Photocatalytic CO Reduction <b>2022</b> ,	10

249	Photoinduced Surface Electric Fields and Surface Population Dynamics of GaP(100) Photoelectrodes.	
248	Surface States for Photoelectrodes of Gallium Phosphide (GaP) with Surface-Specific Electronic Spectra and Phase Measurements.	2
247	Photoelectrocatalytic hydrogen peroxide production based on transition-metal-oxide semiconductors. <b>2022</b> , 43, 1204-1215	2
246	Current status of hematite (Fe2O3) based Z-scheme photocatalytic systems for environmental and energy applications. <b>2022</b> , 10, 107427	1
245	Exploring the metal-free catalytic reduction of CO to methanol with saturated adamantane scaffolds of phosphine-borane frustrated Lewis pair: A DFT study <b>2022</b> , 113, 108150	О
244	Constructing an ohmic junction of copper@ cuprous oxide nanocomposite with plasmonic enhancement for photocatalysis <b>2022</b> , 616, 163-176	2
243	Visible light driven photocatalytic reduction of CO2 on Au-Pt/Cu2O/ReS2 with high efficiency and controllable selectivity. <b>2022</b> , 437, 135299	3
242	Photocatalytic reduction of CO2 and degradation of Bisphenol-S by g-C3N4/Cu2O@Cu S-scheme heterojunction: Study on the photocatalytic performance and mechanism insight. <b>2022</b> , 193, 272-284	1
241	Synergistic conversion of CO2 into C1 and C2 gases using hybrid in-doped TiO2 and g-C3N4 photocatalysts. <b>2022</b> , 437, 135388	2
240	Nanocatalysts as potential candidates in transforming CO2 into valuable fuels and chemicals: A review. <b>2022</b> , 18, 100671	
239	A Mini-Review on Nanostructured g-C3N4 Photocatalysts for Solar Fuel Production. <b>2021</b> , 12,	
238	Developing Atomically Thin LiHTiOI2HO Nanosheets for Selective Photocatalytic CO Reduction to CO <b>2021</b> ,	O
237	Application of Porous Materials for CO2 Reutilization: A Review. <b>2022</b> , 15, 63	2
236	CdS/BiOBr Nanocomposite with Enhanced Activity under Visible Light for Photocatalytic Reduction of CO2 in Cyclohexanol. <b>2021</b> , 62, S1-S8	
235	Z-Scheme Cu2O/Bi/BiVO4 Nanocomposite Photocatalysts: Synthesis, Characterization, and Application for CO2 Photoreduction. <b>2021</b> , 60, 18384-18396	2
234	Identification and Design of Active Sites on Photocatalysts for the Direct Artificial Carbon Cycle. <b>2022</b> , 3, 331-342	6
233	Bi-Functional Paraffin@Polyaniline/TiO/PCN-222(Fe) Microcapsules for Solar Thermal Energy Storage and CO Photoreduction <b>2021</b> , 12,	2
232	Recent advances in constructing heterojunctions of binary semiconductor photocatalysts for visible light responsive CO 2 reduction to energy efficient fuels: A review. <b>2022</b> , 46, 5523-5584	O

231	Rationally designed ultrathin Ni(OH)2/titanate nanosheet heterostructure for photocatalytic CO2 reduction. <b>2021</b> ,	1
230	Well-Designed Spherical Covalent Organic Frameworks with an Electron-Deficient and Conjugate System for Efficient Photocatalytic Hydrogen Evolution. <b>2021</b> , 4, 14111-14120	O
229	Review of Graphitic Carbon Nitride and Its Composite Catalysts for Selective Reduction of CO2. <b>2021</b> , 4, 12845-12890	2
228	Brownmillerite-type Ca2Fe0.75Co1.25O5 as a Robust Electrocatalyst for Oxygen Evolution Reaction in Neutral Conditions.	O
227	Nickel metal-organic frameworks for visible-light CO reduction under mild reaction conditions <b>2022</b> ,	0
226	Recent advances in wide solar spectrum active W18O49-based photocatalysts for energy and environmental applications. 1-46	O
225	Strategies and reaction systems for solar-driven CO2 reduction by water. 2022, 1, 1	1
224	CsPbBr3 perovskite based tandem device for CO2 photoreduction. <b>2022</b> , 443, 136447	1
223	Presentation_1.pdf. <b>2019</b> ,	
222	Hydrogenation of CO2 by photocatalysis: An overview. <b>2022</b> , 121-140	
221	A Review on Titanium Dioxide Based Photocatalytic Cement: Self-cleaning Cement. 2022, 239-273	
220	Successful CO2 reduction under visible light photocatalysis using porous NiO nanoparticles, an atypical metal oxide.	O
219	Metal-organic framework for photocatalytic reduction of carbon dioxide. 2022, 727-748	
218	A critical review on emerging photocatalysts for syngas generation via CO2 reduction under aqueous medium: a sustainable paradigm.	O
217	ZnIn 2 S 4 -based nanostructures in artificial photosynthesis: Insights into photocatalytic reduction toward sustainable energy production.	О
216	Current dilemma in photocatalytic CO2 reduction: real solar fuel production or false positive outcomings?. <b>2022</b> , 1, 1	O
215	Mn-Doped Perovskite Nanocrystals for Photocatalytic CO 2 Reduction: Insight into the Role of the Charge Carriers with Prolonged Lifetime. 2200294	4

213	A review on recent advances in metal chalcogenide-based photocatalysts for CO2 reduction. <b>2022</b> , 10, 107763	1
212	Fabrication of 2H/3C-SiC heterophase junction nanocages for enhancing photocatalytic CO reduction <b>2022</b> , 622, 31-39	1
211	Emergent Catalytic Materials Towards CO2 Reduction. <b>2022</b> , 315-360	
210	Atomically Thin Bi2O2(OH)1+x(NO3)1☑ Nanosheets with Regulated Surface Composition for Enhanced Photocatalytic CO2 Reduction.	O
209	Sulfur-Modified Copper Synergy with Nitrogen-Defect Sites for the Electroreduction of CO2 to Formate at Low Overpotentials. <b>2022</b> , 140557	2
208	Synthesis of metal-free Si/SiC composite for photocatalytic hydrogen production. <b>2022</b> , 128,	1
207	Theoretical study of single transition metal atom catalysts supported on two-dimensional Nb2NO2 for efficient electrochemical CO2 reduction to CH4. <b>2022</b> , 62, 102069	1
206	BiFeO 3 -Based Materials For Augmented Photoactivity. <b>2022</b> , 167-216	O
205	Rational Design of Metal Halide Perovskite Nanocrystals for Photocatalytic CO2 Reduction: Recent Advances, Challenges, and Prospects. 2043-2059	10
204	Insight on Reaction Pathways of Photocatalytic CO2 Conversion. 7300-7316	13
204	Insight on Reaction Pathways of Photocatalytic CO2 Conversion. 7300-7316  Quantitative Modeling of Electron Dynamics and the Effect of Diffusion in Photosensitized Semiconductor Nanocomposites.	13
, i	Quantitative Modeling of Electron Dynamics and the Effect of Diffusion in Photosensitized	13
203	Quantitative Modeling of Electron Dynamics and the Effect of Diffusion in Photosensitized Semiconductor Nanocomposites.	
203	Quantitative Modeling of Electron Dynamics and the Effect of Diffusion in Photosensitized Semiconductor Nanocomposites.  Recent Progress on Carbon-Nanotube-Based Materials for Photocatalytic Applications: A Review.  Oxygen Vacancy Induced Boosted Visible-Light Driven Photocatalytic CO 2 Reduction and	1
203	Quantitative Modeling of Electron Dynamics and the Effect of Diffusion in Photosensitized Semiconductor Nanocomposites.  Recent Progress on Carbon-Nanotube-Based Materials for Photocatalytic Applications: A Review.  Oxygen Vacancy Induced Boosted Visible-Light Driven Photocatalytic CO 2 Reduction and Electrochemical Water Oxidation Over CuCo-ZIF@Fe 2 O 3 @CC Architecture. 2200308	1
203	Quantitative Modeling of Electron Dynamics and the Effect of Diffusion in Photosensitized Semiconductor Nanocomposites.  Recent Progress on Carbon-Nanotube-Based Materials for Photocatalytic Applications: A Review.  Oxygen Vacancy Induced Boosted Visible-Light Driven Photocatalytic CO 2 Reduction and Electrochemical Water Oxidation Over CuCo-ZIF@Fe 2 O 3 @CC Architecture. 2200308  SnTa2O6: A novel CO2 reduction photocatalyst with nearly 100% CO selectivity. 2022, 446, 137242	1
203 202 201 200	Quantitative Modeling of Electron Dynamics and the Effect of Diffusion in Photosensitized Semiconductor Nanocomposites.  Recent Progress on Carbon-Nanotube-Based Materials for Photocatalytic Applications: A Review.  Oxygen Vacancy Induced Boosted Visible-Light Driven Photocatalytic CO 2 Reduction and Electrochemical Water Oxidation Over CuCo-ZIF@Fe 2 O 3 @CC Architecture. 2200308  SnTa2O6: A novel CO2 reduction photocatalyst with nearly 100% CO selectivity. 2022, 446, 137242  Metal®rganic Frameworks for Photoreduction of CO2. 173-202  Porphyrins and phthalocyanines as biomimetic tools for photocatalytic H2 production and CO2	1 O 1

195	Integrating Single Co Sites into Crystalline Covalent Triazine Frameworks for Photoreduction of CO2.	1
194	Heterogeneous Photocatalyst for CO2 Reduction. <b>2022</b> , 1369-1380	1
193	Research advances in the light-driven conversion of CO2 to valuable chemicals by two-dimensional nanomaterials. <b>2022</b> , 101065	
192	Mixed Metal Sulfides for the Application of Photocatalytic Energy Conversion.	5
191	Elucidating the role of adsorption during artificial photosynthesis: H2O and CO2 adsorption isotherms over TiO2 reveal thermal effects under UV illumination.	
190	Two-Dimensional Photocatalysts for Energy and Environmental Applications. <b>2022</b> , 2, 305-320	
189	Photocatalytic CO2 reduction reactions with water to methanol over bismuth promoted BaTiO3 perovskite nanoparticle catalysts. <b>2022</b> ,	3
188	Photocatalytic Reforming of Biomass: What Role Will the Technology Play in Future Energy Systems. <b>2022</b> , 380,	2
187	Plasmonic Photocatalysis: Activating Chemical Bonds through Light and Plasmon. 2200463	6
186	Theoretical insights into the mechanism of photocatalytic reduction of CO2 over semiconductor catalysts. <b>2022</b> , 52, 100538	3
185	MetalBrganic frameworks and derived materials as photocatalysts for water splitting and carbon dioxide reduction. <b>2022</b> , 469, 214664	6
184	CuNi corelhell bimetallic cocatalyst decorated polymeric carbon nitride for highly efficient and selective methane production from photocatalytic CO2 reduction. <b>2022</b> , 599, 153973	1
183	Artificial photosynthesis by carbon nitride-based composite photocatalysts. <b>2022</b> , 215-243	
182	Graphene oxide-based photocatalysts for CO2 reduction. <b>2022</b> , 93-134	
181	Photocatalytic Reactor as a Bridge to Link the Commercialization of Photocatalyst in Water and Air Purification. <b>2022</b> , 12, 724	О
180	Application of MOFs and COFs for photocatalysis in CO2 reduction, H2 generation, and environmental treatment. <b>2022</b> , 100078	26
179	Zinc-Based Materials for Photoelectrochemical Reduction of Carbon Dioxide.	1
178	Powering the World with Solar Fuels from Photoelectrochemical CO 2 Reduction: Basic Principles and Recent Advances. 2201070	3

177	Cu Nanoparticles Modified Step-Scheme Cu2O/WO3 Heterojunction Nanoflakes for Visible-Light-Driven Conversion of CO2 to CH4. <b>2022</b> , 12, 2284	0
176	Review of 3D printing in photocatalytic substrates and catalysts. <b>2022</b> , 101100	1
175	Newly-modeled graphene-based ternary nanocomposite for the magnetophotocatalytic reduction of CO2 with electrochemical performance.	0
174	An Overview of Solar-Driven Photoelectrochemical CO2 Conversion to Chemical Fuels. 9023-9057	6
173	A critical review on advances in TiO2-based photocatalytic systems for CO2 reduction. <b>2022</b> , 119009	O
172	Photocatalytic Reduction of Carbon Dioxide to Methane at the Pd-Supported TiO2 Interface: Mechanistic Insights from Theoretical Studies. <b>2022</b> , 12, 8558-8571	1
171	Nanostructured materials based on g-C3N4 for enhanced photocatalytic activity and potentials application: A review. <b>2022</b> , 15, 104070	0
170	Electrocatalytic and photocatalytic sustainable conversion of carbon dioxide to value-added chemicals: State-of-the-art progress, challenges, and future directions. <b>2022</b> , 10, 108219	1
169	Photocatalytic Carbon Dioxide Conversion by Structurally and Materially Modified Titanium Dioxide Nanostructures. <b>2022</b> , 23, 8143	0
168	Facet-Engineering of Materials for Photocatalytic Application: Status and Future Prospects. <b>2022</b> , 100084	1
167	Modulating Charge Carrier Dynamics among Anisotropic Crystal Facets of Cu2O for Enhanced CO2 Photoreduction.	1
166	Synergistic effect of interstitial C doping and oxygen vacancies on the photoreactivity of TiO2 nanofibers towards CO2 reduction. <b>2022</b> , 317, 121773	2
165	Fabrication of Nio Dopped Cuo Nanosheets Decorated with Resorcinol Farmaldehyde Resin for Enhanced Photocatalytic Application.	
164	Conversion of CO2 to Fuels. <b>2022</b> ,	
163	Modulation of Trivalent/Tetravalent Metallic Elements in Ni-Based Layered Double Hydroxides for Photocatalytic CO2 Reduction. <b>2022</b> , 14, 35654-35662	0
162	Surface Halogen Compensation on CsPbBr3 Nanocrystals with SOBr2 for Photocatalytic CO2 Reduction. 1638-1645	2
161	Changes in Structural, Morphological and Optical Features of Differently Synthetized C3N4-ZnO Heterostructures: An Experimental Approach. <b>2022</b> , 10, 119	1
160	Plasmonic Hybrid Nanostructures in Photocatalysis: Structures, Mechanisms, and Applications. <b>2022</b> , 380,	1

159	Advances and challenges in developing cocatalysts for photocatalytic conversion of carbon dioxide to fuels.	1
158	Evaluating the photocatalytic activity of 14.6TiO2INa2OI3B2O3-55.4SiO2 (mol%) glass based porous catalysts after selective laser sintering and conventional shaping. <b>2022</b> ,	
157	Effective CO2 Capture and Selective Photocatalytic Conversion into CH3OH by Hierarchical Nanostructured Photocatalysts GO-TiO2-Ag2O and GO-TiO2-Ag2O-Arg.	
156	Interfacial Charge-Transfer Excitons Help the Photoreduction of CO2 on TiO2. 11024-11035	
155	Recent Advances in Photothermal CO x Conversion. 2200493	1
154	Recent advances and perspectives in cobalt-based heterogeneous catalysts for photocatalytic water splitting, CO2 reduction, and N2 fixation. <b>2022</b> , 43, 2273-2300	4
153	The role of material defects in the photocatalytic CO2 reduction: Interfacial properties, thermodynamics, kinetics and mechanism. <b>2022</b> , 64, 102175	О
152	Progress in thermoplasmonics for solar energy applications. <b>2022</b> , 981, 1-50	4
151	Stability strategies of perovskite quantum dots and their extended applications in extreme environment: A review. <b>2022</b> , 156, 111987	2
150	Ferrocene-boosting Zr-MOFs for efficient photocatalytic CO2 reduction: A trade-off between enhancing LMCT and frustrating Lewis acid. <b>2023</b> , 451, 138747	Ο
149	Nanoarchitectonics of CuNi bimetallic nanoparticles in ionic liquids for LED-assisted synergistic CO2 photoreduction. <b>2022</b> , 531, 112654	1
148	Understanding the chemoselectivity switch in CO2 reduction catalyzed by Co and Fe complexes bearing a pentadentate N5 ligand. <b>2022</b> , 414, 277-293	1
147	Sustainable organic synthesis promoted on titanium dioxide using coordinated water and renewable energies/resources. <b>2022</b> , 472, 214773	О
146	High-Temperature Semiconductor-Based Catalyst for Artificial Photosynthesis.	О
145	Introduction. <b>2022</b> , 1-46	О
144	MXene quantum dots of Ti3C2: Properties, synthesis, and energy-related applications. <b>2022</b> , 43, 2484-2499	Ο
143	A review on ZnS-based photocatalysts for CO2 reduction in all-inorganic aqueous medium.	1
142	Recent advancement in heterogeneous CO2 reduction processes in aqueous electrolyte.	O

141	Copper ternary oxides as photocathodes for solar-driven CO2 reduction. <b>2022</b> , 61, 430-457	О
140	A review on TiO2N-based materials for photocatalytic CO2 reduction. <b>2022</b> , 14, 11512-11528	5
139	TiO2-based photocatalysts for CO2 reduction and solar fuel generation. <b>2022</b> , 43, 2500-2529	O
138	Recent Trends in Covalent Organic Frameworks (COFs) for Carbon Dioxide Reduction.	O
137	Defective Ultrathin ZnIn2S4 Nanosheets Boosting CO2 Photoreduction Property. 2022, 47-64	O
136	Nanomaterials and hybrid nanocomposites for CO2 capture and utilization: environmental and energy sustainability. <b>2022</b> , 12, 23869-23888	2
135	A S-scheme heterojunction of Co9S8 decorated TiO2 for enhanced photocatalytic H2 evolution. <b>2023</b> , 930, 167368	0
134	Construction of a flower-like SnS2/SnO2 junction for efficient photocatalytic CO2 reduction. <b>2023</b> , 629, 871-877	1
133	Celebrating 50 Years of Photocatalytic Hydrogen Generation. <b>2022</b> , 7, 3149-3150	1
132	Efficient Photoreduction of Diluted CO 2 to Tunable Syngas by Nito Dual Sites through d-band Center Manipulation.	O
131	Synthesis, characterization, and photoreduction performance evaluation of gold/titanium oxide/calcium carbonate photocatalysts for carbon dioxide reduction. <b>2022</b> , 4,	0
130	Challenges and Prospects in Catalytic Conversion of Carbon Dioxide to Formaldehyde.	Ο
129	Toward Excellence in Photocathode Engineering for Photoelectrochemical CO 2 Reduction: Design Rationales and Current Progress. 2201093	5
128	In Situ-Illuminated X-Ray Photoelectron Spectroscopy Investigation of S-Scheme Ta 2 O 5 /ZnIn 2 S 4 CoreBhell Hybrid Nanofibers for Highly Efficient Solar-Driven CO 2 Overall Splitting. 2200736	O
127	Elaboration and Characterization of Amorphous Silicon Carbide Thin Films (a-SiC) by Sputerring Magnetron Technique for Photoelectrochemical CO2 Conversion.	0
126	Efficient Photoreduction of Diluted CO 2 to Tunable Syngas by Nito Dual Sites through d-band Center Manipulation.	3
125	Challenges and Prospects in Catalytic Conversion of Carbon Dioxide to Formaldehyde.	0
124	Preparation of Iron-doped Carbon Dots and their Application in Photocatalytic Reduction of Cabon Dioxide.	O

123	Ce3+ self-doping CeO2-x@CuO nanowires arrays on copper mesh at the gas-liquid interface: Enhanced performance of reducing CO2 to methanol under visible light. <b>2022</b> , 133, 113038	0
122	Challenges and recent advancements in the transformation of CO2 into carboxylic acids: straightforward assembly with homogeneous 3d metals.	2
121	Underlying physics and chemistry of ferroic-photocatalysis: a critical review.	О
120	Progress and perspectives on 1D nanostructured catalysts applied in photo(electro)catalytic reduction of CO2.	3
119	CuD/N Single Sites Incorporated 2D Covalent Organic Framework Ultrathin Nanobelts for Highly Selective Visible-Light-Driven CO 2 Reduction to CO. 2200233	0
118	Fabrication of glass immobilized amorphous organotitanium polymer for enhancing catalytic turnover frequency and stabilities in photocatalytic reduction of CO2. <b>2022</b> , 647, 118910	0
117	Research Progress on Graphitic Carbon Nitride/Metal Oxide Composites: Synthesis and Photocatalytic Applications. <b>2022</b> , 23, 12979	2
116	A Mini-Review on CO2 Photoreduction by MgAl-LDH Based Materials. <b>2022</b> , 15, 8117	1
115	Enhanced CO2 Photoreduction through Spontaneous Charge Separation in End-Capping Assembly of Heterostructured Covalent-Organic Frameworks.	О
114	An engineered non-oxidative glycolytic bypass based on Calvin-cycle enzymes enables anaerobic co-fermentation of glucose and sorbitol by Saccharomyces cerevisiae. <b>2022</b> , 15,	1
113	Dipole-forbidden transitions induced by the gradient of optical near fields. 2022, 106,	O
112	A Recent Review on Photocatalytic CO2 Reduction in Generating Sustainable Carbon-Based Fuels. <b>2023</b> , 205-261	О
111	A Hybrid Amorphous/Crystalline TiO 2 Material with Enhanced Photocatalytic Performance. 2200316	0
110	Interfacial CB bonds of g-C3N4/Bi19Br3S27 S-scheme heterojunction for enhanced photocatalytic CO2 reduction.	О
109	Enhanced CO2 Photoreduction through Spontaneous Charge Separation in End-Capping Assembly of Heterostructured Covalent-Organic Frameworks.	0
108	Molybdenum Carbide-Based Photocatalysts: Synthesis, Functionalization, and Applications. <b>2022</b> , 38, 12739-12756	2
107	State-of-the-art advances on syntheses, structures and applications of polyoxometalate-based metal-organic frameworks. <b>2022</b> ,	2
106	Recent advance in nanostructured materials innovation towards photocatalytic CO2 reduction. <b>2022</b> , 648, 118927	О

105	Graphene-Based Metal®rganic Framework Hybrids for Applications in Catalysis, Environmental, and Energy Technologies.	5
104	Ag3PO4 and Ag3PO4Based visible light active photocatalysts: Recent progress, synthesis, and photocatalytic applications. <b>2022</b> , 106556	2
103	Dual-metal sites CuInS2/g-C3N4 Z-scheme heterojunction with efficient photocatalytic CO2 reduction selectivity. <b>2022</b> , 238, 107530	0
102	p-n heterojunctions of Si@WO3 mimicking thylakoid for photoelectrocatalytic CO2 reduction to C2+ products [Morphology control. <b>2023</b> , 454, 140122	1
101	Photoactive Copper Complexes: Properties and Applications.	4
100	A Critical Review of the Use of Bismuth Halide Perovskites for CO2 Photoreduction: Stability Challenges and Strategies Implemented. <b>2022</b> , 12, 1410	O
99	Porous Graphitic Carbon Nitride Nanostructures and Their Application in Photocatalytic Hydrogen Evolution Reaction. <b>2022</b> , 133-163	0
98	OrganicIhorganic hybrid nanocomposites for the photoreduction of CO2: environment and energy technologies. <b>2022</b> , 45,	O
97	A Comprehensive Review on Graphitic Carbon Nitride for Carbon Dioxide Photoreduction. 2201013	0
96	Photocatalytic Conversion of CO 2 into Value Added and Renewable Fuels over Heterogeneous Nanocatalysts. <b>2022</b> , 221-274	O
95	Metal-Free Covalent Organic Framework for Facile Production of Solar Fuel via CO2 Reduction.	0
94	Composites for Aqueous-Mediated Heterogeneously Catalyzed Degradation and Mineralization of Water Pollutants on TiO2A Review. <b>2022</b> , 6, 350	O
93	Titanium oxide mediated rapid charge separation in halide perovskite for efficient photocatalytic CO2 reduction. <b>2023</b> , 811, 140255	0
92	Indium-based ternary metal sulfide for photocatalytic CO2 reduction application. 2023, 44, 67-95	0
91	Crystal phase engineering SiC nanosheets for enhancing photocatalytic CO2 reduction.	0
90	A novel S-scheme heterojunction constructed by Ti-based hydrotalcite decorating MOFs for boosting CO2-to-CO photoreduction and mechanism insights.	O
89	Exploration of metal organic frameworks and covalent organic frameworks for energy-related applications. <b>2023</b> , 477, 214968	2
88	Design of hollow nanostructured photocatalysts for clean energy production. <b>2023</b> , 477, 214953	O

## (2023-2023)

87	Understanding the intermediates and carbon dioxide adsorption of potassium chloride-incorporated graphitic carbon nitride with tailoring melamine and urea as precursors. <b>2023</b> , 633, 598-607	0
86	Design of sculptured SnS/g-C3N4 photocatalytic nanostructure for highly efficient and selective CO2 conversion to methane. <b>2023</b> , 324, 122231	O
85	Carbon Dioxide Reduction Mechanism via Single Atom Nickel Supported on Graphitic Carbon Nitride.	0
84	Emerging Trends in Nanomaterials for Photosynthetic Biohybrid Systems. 95-115	2
83	More than One Century of History for Photocatalysis, from Past, Present and Future Perspectives. <b>2022</b> , 12, 1572	О
82	Engineered 2D Metal Oxides for Photocatalysis as Environmental Remediation: A Theoretical Perspective. <b>2022</b> , 12, 1613	1
81	Metal Halide Perovskite Nanostructures and Quantum Dots for Photocatalytic CO2 Reduction: Prospects and Challenges. <b>2022</b> , 101230	О
80	Advances in Organic and Inorganic Photoredox Catalysis.	O
79	Controllable adsorption groups on amine-functionalized carbon nitride for enhanced photocatalytic CO2 reduction. <b>2022</b> , 140746	О
78	Metal-enhanced strategies for photocatalytic and photoelectrochemical CO2 reduction. <b>2022</b> , 141179	О
77	Silicon Photo-Electrodes for Water Splitting and Their Protection. 2023, 237-256	0
76	Research status, challenges and future prospects of renewable synthetic fuel catalysts for CO2 photocatalytic reduction conversion.	O
75	Promoting Photocatalytic Carbon-Dioxide Reduction by Tuning the Properties of Cocatalysts.	О
74	Recent Advances on Multivariate MOFs for Photocatalytic CO 2 Reduction and H 2 Evolution. 2200394	O
73	A Parametric Study of the Crystal Phases on Au/TiO2 Photocatalysts for CO2 Gas-Phase Reduction in the Presence of Water. <b>2022</b> , 12, 1623	О
72	Microporous Polymelamine Framework Functionalized with Re(I) Tricarbonyl Complexes for CO2 Absorption and Reduction. <b>2022</b> , 14, 5472	O
71	Dislocated Bilayer MOF Enables High-Selectivity Photocatalytic Reduction of CO 2 to CO. 2209814	O
70	A Review of the Single-Step Flame Synthesis of Defective and Heterostructured TiO2 Nanoparticles for Photocatalytic Applications. <b>2023</b> , 13, 196	1

69	Band Engineering of Photocatalytic BiVO4 with Modified Vanadium States via Potassium Chloride Addition during Hydro-Thermal Synthesis and Post-Annealing. <b>2023</b> , 16, 629	O
68	The Collision between g-C 3 N 4 and QDs in the Fields of Energy and Environment: Synergistic Effects for Efficient Photocatalysis. 2205902	1
67	Nanomaterials as catalysts for CO2 transformation into value-added products: A review. 2023, 161547	0
66	Effective CO2 Capture and Selective Photocatalytic Conversion into CH3OH by Hierarchical Nanostructured GOIIiO2Ag2O and GOIIiO2Ag2OArg.	О
65	A comparative overview of MXenes and metal oxides as cocatalysts in clean energy production through photocatalysis.	О
64	Photocatalytic Nitrogen Fixation using Graphitic Carbon Nitride: A Review. 2023, 8,	0
63	Functionalized MOFs-Based Photocatalysts for CO2 Reduction.	О
62	Mechanism of photocatalytic reduction of CO2 to CH4 on F-doped defective anatase TiO2(101) surface: A density functional theory study. <b>2023</b> , 730, 122247	O
61	What is a Photocatalyst?. <b>2016</b> , 1-24	0
60	The Chemistry of CO2 Reduction Processes: Mechanisms, Challenges, and Perspectives. <b>2022</b> , 1-25	O
59	Photoelectrocatalytic CO2 reduction. <b>2023</b> , 335-359	0
58	Photocatalytic process for syngas production. <b>2023</b> , 261-290	O
57	Photoelectrocatalytic degradation of harmful compounds. 2023, 265-305	0
56	Photocatalytic water splitting and reduction of CO2. <b>2023</b> , 111-155	O
55	Photoelectrochemical reduction of CO2 catalyzed by a 3D coreShell NiMoO4@ZnO heterojunction with bicentre at the (111) plane and thermal electron assistance.	О
54	Investigation of Advanced Oxidation Process in the Presence of TiO2 Semiconductor as Photocatalyst: Property, Principle, Kinetic Analysis, and Photocatalytic Activity. <b>2023</b> , 13, 232	2
53	Single-site bipyridine cobalt complexes covalently embedded into graphitic carbon nitride with excellent photocatalytic activity and selectivity towards CO2 reduction.	О
52	Cu-Based Materials as Photocatalysts for Solar Light Artificial Photosynthesis: Aspects of Engineering Performance, Stability, Selectivity. <b>2023</b> , 3, 87-112	O

51	Covalent organic framework films grown on spongy g-C3N4 for efficient photocatalytic hydrogen production. <b>2023</b> , 439, 114590	Ο
50	Interfacial construction of P25/Bi2WO6 composites for selective CO2 photoreduction to CO in gasEolid reactions. <b>2023</b> , 13, 8564-8576	Ο
49	Recent progress of theoretical studies on electro- and photo-chemical conversion of CO2 with single-atom catalysts. <b>2023</b> , 13, 5833-5850	0
48	Highly Selective Photoelectroreduction of Carbon Dioxide to Ethanol over Graphene/Silicon Carbide Composites. <b>2023</b> , 135,	O
47	Recent developments of lead-free halide-perovskite nanocrystals: Synthesis strategies, stability, challenges, and potential in optoelectronic applications. <b>2023</b> , 34, 101079	0
46	Photoelectrocatalytic CO2 reduction with ternary nanocomposite of MXene (Ti3C2)-Cu2O-Fe3O4: Comprehensive utilization of electrolyte and light-wavelength. <b>2023</b> , 464, 142716	Ο
45	Metal halide perovskites for photocatalytic CO2 reduction: An overview and prospects. <b>2023</b> , 482, 215076	Ο
44	Electronegative diversity induced localized built-in electric field in a single phased MoSxSeyNz for selectivity-enhanced visible photocatalytic CO2 reduction. <b>2023</b> , 330, 122625	Ο
43	Self-supported CsPbBr3/Ti3C2Tx MXene aerogels towards efficient photocatalytic CO2 reduction. <b>2023</b> , 643, 174-182	0
42	Enhancing CO2 photoconversion activity of TiO2 via synergistic effects of La-doping and ammonia vapor heat treatment. <b>2023</b> , 441, 114755	Ο
41	Sustainable production of bio-propionic acid: synergy between vacancy and thermoelectron in MoS2/MoO3 composite-enhanced hydrodeoxygenation of lactic acid. <b>2023</b> , 13, 1221-1232	0
40	Constructing direct Z-scheme heterojunction g-C3N5/BiOBr for efficient photocatalytic CO2 reduction with H2O. <b>2023</b> , 11, 109345	Ο
39	Internal electric field in carbon nitride-based heterojunctions for photocatalysis. 2023, 108, 108228	0
38	Substitution and oxygen vacancy double defects on Bi2MoO6 induced efficient conversion of CO2 and highly selective production of CH4. <b>2023</b> , 617, 156605	O
37	State-of-the-art progress in Ag3PO4-based photocatalysts: Rational design, regulation and perspective. <b>2023</b> , 31, 101742	1
36	Advances in Modulating the Activity and Selectivity of Photocatalytic CO2 Reduction to Multicarbon Products. <b>2023</b> , 127, 2766-2781	O
35	Photoelectrochemical properties of Cu2O/PANI/Si-based photocathodes for CO2 conversion. <b>2023</b> , 12, 78-91	О
34	Constructing Robust Bi Active Sites In Situ on Bi2O3 for Efficient and Selective Photoreduction of CO2 to CH4 via Directional Transfer of Electrons. <b>2023</b> , 13, 2513-2522	Ο

33	Research Progress of Copper-Based Bimetallic Electrocatalytic Reduction of CO2. 2023, 13, 376	O
32	Converting CO 2 into Value-Added Products by Cu 2 O-Based Catalysts: From Photocatalysis, Electrocatalysis to Photoelectrocatalysis. 2207875	O
31	Highly Selective Photoelectroreduction of Carbon Dioxide to Ethanol over Graphene/Silicon Carbide Composites. <b>2023</b> , 62,	О
30	Stability of Photocathodes: A Review on Principles, Design, and Strategies.	O
29	Ceria-based photocatalysts in water-splitting for hydrogen production and carbon dioxide reduction. 1-78	О
28	A review of CO2 utilization and emissions reduction: From the perspective of the chemical engineering. <b>2023</b> , 172, 681-699	O
27	Investigation of Concerted ProtonElectron Donors for Promoting the Selective Production of HCOOH in CO2 Photoreduction. <b>2023</b> , 13, 3254-3262	О
26	Oxide based Heterostructured Photocatalysts for CO 2 Reduction and Hydrogen Generation. <b>2023</b> , 8,	O
25	Ultra-stable and bifunctional free-standing SiC photoelectrocatalyst for water remediation. <b>2023</b> , 396, 136484	О
24	Solar-Triggered Engineered 2D-Materials for Environmental Remediation: Status and Future Insights. <b>2023</b> , 10,	O
23	Advanced electrocatalytic technologies for conversion of carbon dioxide into methanol by electrochemical reduction: Recent progress and future perspectives. <b>2023</b> , 482, 215081	О
22	Solar driven CO2 reduction: from materials to devices.	O
21	Retrospective insights into recent MXene-based catalysts for CO2 electro/photoreduction: how far have we gone?. <b>2023</b> , 15, 6536-6562	O
20	Vertical graphene on rice-husk-derived SiC/C composite for highly selective photocatalytic CO2 reduction into CO. <b>2023</b> , 207, 36-48	O
19	Research Progress of Tungsten Oxide-Based Catalysts in Photocatalytic Reactions. <b>2023</b> , 13, 579	O
18	Photoelectrocatalytic reduction of CO2 catalyzed by TiO2/TiN nanotube heterojunction: Nitrogen assisted active hydrogen mechanism. <b>2023</b> , 47, 243-253	O
17	Assembling a bifunctional BiOCl/Bi-MOF catalyst via sharing Bi-Cl bond: Achieving ultra-efficient CO2 capture and photoreduction. <b>2023</b> , 624, 157100	О
16	Materials design of edge-modified polymeric carbon nitride nanoribbons for the photocatalytic CO2 reduction reaction. <b>2023</b> , 25, 9901-9908	O

## CITATION REPORT

15	Understanding the fundamentals of TiO2 surfacesPart II. Reactivity and surface chemistry of TiO2 single crystals. <b>2022</b> , 38, 846-906	О
14	Optoelectronic materials utilizing hot excitons or hot carriers: from mechanism to applications.	O
13	Smart Nanomaterials for Photo-Catalytic Applications. <b>2023</b> , 112-154	O
12	Synergistic realization of high efficiency solar desalination and carbon dioxide reduction.	О
11	EPDM rubber-based membranes for electrochemical water splitting and carbon dioxide reduction reactions.	О
10	Iron-Complex-Based Supramolecular Framework Catalyst for Visible-Light-Driven CO2 Reduction.	O
9	In-situ electrochemical-ion-exchange synthesis of S-scheme 1D/2D BiPO4/BiOBr heterojunction film from Bi plate with highly efficient photocatalytic CO2 reduction activity. <b>2023</b> , 177, 106664	О
8	Electrochemical power sources: Photoelectrochemical cells. 2023,	O
7	Au-based heterostructure composites for photo and electro catalytic energy conversions. 2023, 36, e00609	О
6	Nanoscale Janus Z-Scheme Heterojunction for Boosting Artificial Photosynthesis.	O
5	Co-doped hydroxyapatite as photothermal catalyst for selective CO2 hydrogenation. 2023, 333, 122790	О
4	High-entropy oxides for energy storage and catalysis. <b>2023</b> , 209-236	O
3	HomogeneousHeterogeneous Hybrid Artificial Photosynthesis Induced by Organic Semiconductors with Controlled Surface Architectures.	O
2	Recent advances in 2D semiconductor nanomaterials for photocatalytic CO2 reduction.	О
1	Efficient Photoactive Materials for CO2 Conversion into Valuable Products Using Organic and Inorganic-Based Composites. <b>2023</b> , 395-415	0