Gerardo ColÃ³n

List of Publications by Year
in descending order

126 papers	10,191 citations	30070 54 h-index	32842 100 g-index
129 all docs	129 docs citations	129 times ranked	10983 citing authors

#	Article	IF	Citations
1	Enhanced photocatalytic activity of TiO2/WO3 nanocomposite from sonochemical-microwave assisted synthesis for the photodegradation of ciprofloxacin and oxytetracycline antibiotics under UV and sunlight. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 428, 113848.	3.9	25
2	H2 Photoproduction Efficiency: Implications of the Reaction Mechanism as a Function of the Methanol/Water Mixture. Catalysts, 2022, 12, 402.	3.5	1
3	Shepherding reaction intermediates to optimize H2 yield using composite-doped TiO2-based photocatalysts. Chemical Engineering Journal, 2022, 442, 136333.	12.7	3
4	Overcoming Pdâ€“TiO₂ Deactivation during H₂ Production from Photoreforming Using Cu@Pd Nanoparticles Supported on TiO₂. ACS Applied Nano Materials, 2021, 4, 3204-3219.	5.0	17
5	Mechanistic Considerations on the H₂ Production by Methanol Thermalâ€assisted Photocatalytic Reforming over Cu/TiO₂ Catalyst. ChemCatChem, 2021, 13, 3878-3888.	3.7	13
6	Elucidating the nature of Mo species on ZSM-5 and its role in the methane aromatization reaction. Reaction Chemistry and Engineering, 2021, 6, 1265-1276.	3.7	8
7	NaY(MoO₄)₂-based nanoparticles: synthesis, luminescence and photocatalytic properties. Dalton Transactions, 2021, 50, 16539-16547.	3.3	5
8	Thermoâ€Photocatalytic Methanol Reforming for Hydrogen Production over a CuPdâˆ'TiO₂ Catalyst. ChemPhotoChem, 2020, 4, 630-637.	3.0	23
9	Surface Modification of Rutile TiO₂ with Alkaline-Earth Oxide Nanoclusters for Enhanced Oxygen Evolution. ACS Applied Nano Materials, 2020, 3, 6017-6033.	5.0	10
10	Structural and surface considerations on Mo/ZSM-5 systems for methane dehydroaromatization reaction. Molecular Catalysis, 2020, 486, 110787.	2.0	15
11	(NH4)4[NiMo6O24H6].5H2O / g-C3N4 materials for selective photo-oxidation of C O and C C bonds. Applied Catalysis B: Environmental, 2020, 278, 119299.	20.2	11
12	Phaseâ€Contact Engineering in Monoâ€•and Bimetallic Cuâ€Ni Coâ€catalysts for Hydrogen Photocatalytic Materials. Angewandte Chemie, 2018, 130, 1213-1217.	2.0	6
13	Solar pilot plant scale hydrogen generation by irradiation of Cu/TiO2 composites in presence of sacrificial electron donors. Applied Catalysis B: Environmental, 2018, 229, 15-23.	20.2	62
14	Phaseâ€Contact Engineering in Monoâ€•and Bimetallic Cuâ€Ni Coâ€catalysts for Hydrogen Photocatalytic Materials. Angewandte Chemie - International Edition, 2018, 57, 1199-1203.	13.8	59
15	Improving the direct synthesis of hydrogen peroxide from hydrogen and oxygen over Au-Pd/SBA-15 catalysts by selective functionalization. Molecular Catalysis, 2018, 445, 142-151.	2.0	43
16	Photochemical methane partial oxidation to methanol assisted by H2O2. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 349, 216-223.	3.9	39
17	Photocatalytic Escherichia coli inactivation by means of trivalent Er 3+ , Y 3+ doping of BiVO 4 system. Applied Catalysis A: General, 2016, 526, 126-131.	4.3	20
18	Towards the hydrogen production by photocatalysis. Applied Catalysis A: General, 2016, 518, 48-59.	4.3	143

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19	Cascade charge separation mechanism by ternary heterostructured BiPO4/TiO2/g-C3N4 photocatalyst. Applied Catalysis B: Environmental, 2016, 184, 96-103.	20.2	100
20	TiO2-clay based nanoarchitectures for enhanced photocatalytic hydrogen production. Microporous and Mesoporous Materials, 2016, 222, 120-127.	4.4	30
21	Cuâ€“TiO2 systems for the photocatalytic H2 production: Influence of structural and surface support features. Applied Catalysis B: Environmental, 2015, 179, 468-478.	20.2	79
22	A novel two-steps solvothermal synthesis of nanosized BiPO4 with enhanced photocatalytic activity. Journal of Molecular Catalysis A, 2015, 402, 92-99.	4.8	17
23	On the origin of the photocatalytic activity improvement of BIVO4 through rare earth tridoping. Applied Catalysis A: General, 2015, 501, 56-62.	4.3	31
24	Photocatalytic activity of bismuth vanadates under UV-A and visible light irradiation: Inactivation of Escherichia coli vs oxidation of methanol. Catalysis Today, 2015, 240, 93-99.	4.4	31
25	Evolution of H2 photoproduction with Cu content on CuO -TiO2 composite catalysts prepared by a microemulsion method. Applied Catalysis B: Environmental, 2015, 163, 214-222.	20.2	61
26	Water splitting performance of Er3+-doped YVO4 prepared from a layered K3V5O14 precursor. Chemical Engineering Journal, 2015, 262, 29-33.	12.7	15
27	Heterostructured Er3+ doped BiVO4 with exceptional photocatalytic performance by cooperative electronic and luminescence sensitization mechanism. Applied Catalysis B: Environmental, 2014, 158-159, 242-249.	20.2	94
28	Improved H2 production of Pt-TiO2/g-C3N4-MnOx composites by an efficient handling of photogenerated charge pairs. Applied Catalysis B: Environmental, 2014, 144, 775-782.	20.2	111
29	Excellent photocatalytic activity of Yb3+, Er3+ co-doped BiVO4 photocatalyst. Applied Catalysis B: Environmental, 2014, 152-153, 328-334.	20.2	84
30	In situ XAS study of an improved natural phosphate catalyst for hydrogen production by reforming of methane. Applied Catalysis B: Environmental, 2014, 150-151, 459-465.	20.2	17
31	A ternary Er3+-BiVO4/TiO2 complex heterostructure with excellent photocatalytic performance. RSC Advances, 2014, 4, 6920.	3.6	40
32	Bifunctional, Monodisperse BiPO4-Based Nanostars: Photocatalytic Activity and Luminescent Applications. Crystal Growth and Design, 2014, 14, 3319-3326.	3.0	45
33	Improved O₂ evolution from a water splitting reaction over Er³⁺ and Y³⁺ co-doped tetragonal BiVO₄. Catalysis Science and Technology, 2014, 4, 2042-2050.	4.1	42
34	Exalted photocatalytic activity of tetragonal BiVO₄by Er³⁺doping through a luminescence cooperative mechanism. Dalton Transactions, 2014, 43, 311-316.	3.3	71
35	Active Site Considerations on the Photocatalytic H₂ Evolution Performance of Cu-Doped TiO₂ Obtained by Different Doping Methods. ACS Catalysis, 2014, 4, 3320-3329.	11.2	96
36	Photocatalytic Nanooxides: The Case of TiO2 and ZnO. , 2013, , 245-266.		2

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37	On the different photocatalytic performance of BiVO4 catalysts for Methylene Blue and Rhodamine B degradation. Journal of Molecular Catalysis A, 2013, 376, 40-47.	4.8	77
38	Erbium doped TiO2â€“Bi2WO6 heterostructure with improved photocatalytic activity under sun-like irradiation. Applied Catalysis B: Environmental, 2013, 140-141, 299-305.	20.2	82
39	High-performance Er3+â€“TiO2 system: Dual up-conversion and electronic role of the lanthanide. Journal of Catalysis, 2013, 299, 298-306.	6.2	108
40	Improved photocatalytic activity of g-C3N4/TiO2 composites prepared by a simple impregnation method. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 253, 16-21.	3.9	235
41	Monoclinicâ€“Tetragonal Heterostructured BiVO₄ by Yttrium Doping with Improved Photocatalytic Activity. Journal of Physical Chemistry C, 2013, 117, 24479-24484.	3.1	134
42	Making Photo-selective TiO₂ Materials by Cationâ€“Anion Codoping: From Structure and Electronic Properties to Photoactivity. Journal of Physical Chemistry C, 2012, 116, 18759-18767.	3.1	29
43	Evidence of upconversion luminescence contribution to the improved photoactivity of erbium doped TiO2 systems. Chemical Communications, 2012, 48, 7865.	4.1	85
44	Effect of deposition of silver on structural characteristics and photoactivity of TiO2-based photocatalysts. Applied Catalysis B: Environmental, 2012, 127, 112-120.	20.2	66
45	Advanced Nanoarchitectures for Solar Photocatalytic Applications. Chemical Reviews, 2012, 112, 1555-1614.	47.7	2,107
46	Effect of hydrothermal treatment on structural and photocatalytic properties of TiO2 synthesized by solâ€“gel method. Applied Catalysis A: General, 2012, 411-412, 153-159.	4.3	32
47	Hydrothermal synthesis of BiVO4: Structural and morphological influence on the photocatalytic activity. Applied Catalysis B: Environmental, 2012, 117-118, 59-66.	20.2	175
48	Photodeposition of gold on titanium dioxide for photocatalytic phenol oxidation. Applied Catalysis A: General, 2011, 397, 112-120.	4.3	86
49	Comparative study of the photodeposition of Pt, Au and Pd on pre-sulphated TiO2 for the photocatalytic decomposition of phenol. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 217, 275-283.	3.9	164
50	Novel Bi2WO6â€“TiO2 heterostructures for Rhodamine B degradation under sunlike irradiation. Journal of Hazardous Materials, 2011, 185, 1425-1434.	12.4	87
51	N- and/or W-(co)doped TiO2-anatase catalysts: Effect of the calcination treatment on photoactivity. Applied Catalysis B: Environmental, 2010, 95, 238-244.	20.2	74
52	Gas phase photocatalytic oxidation of toluene using highly active Pt doped TiO2. Journal of Molecular Catalysis A, 2010, 320, 14-18.	4.8	31
53	Doping level effect on sunlight-driven W,N-co-doped TiO2-anatase photo-catalysts for aromatic hydrocarbon partial oxidation. Applied Catalysis B: Environmental, 2010, 93, 274-281.	20.2	80
54	Sunlight highly photoactive Bi2WO6â€“TiO2 heterostructures for rhodamine B degradation. Chemical Communications, 2010, 46, 4809.	4.1	129

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55	Cationic (V, Mo, Nb, W) doping of TiO2â€“anatase: A real alternative for visible light-driven photocatalysts. Catalysis Today, 2009, 143, 286-292.	4.4	188
56	Influence of sulfur on the structural, surface properties and photocatalytic activity of sulfated TiO2. Applied Catalysis B: Environmental, 2009, 90, 633-641.	20.2	52
57	ZnO activation by using activated carbon as a support: Characterisation and photoreactivity. Applied Catalysis A: General, 2009, 364, 174-181.	4.3	41
58	FTIR study of photocatalytic degradation of 2-propanol in gas phase with different TiO2 catalysts. Applied Catalysis B: Environmental, 2009, 89, 204-213.	20.2	63
59	Effect of Sulfate Pretreatment on Gold-Modified TiO₂ for Photocatalytic Applications. Journal of Physical Chemistry C, 2009, 113, 12840-12847.	3.1	81
60	W,N-Codoped TiO₂-Anatase: A Sunlight-Operated Catalyst for Efficient and Selective Aromatic Hydrocarbons Photo-Oxidation. Journal of Physical Chemistry C, 2009, 113, 8553-8555.	3.1	47
61	Visible-light driven TiO2 photocatalysts from Ti-oxychloride precursors. Journal of Photochemistry and Photobiology A: Chemistry, 2008, 199, 136-143.	3.9	7
62	Highly photoactive ZnO by amine capping-assisted hydrothermal treatment. Applied Catalysis B: Environmental, 2008, 83, 30-38.	20.2	70
63	Influence of amine template on the photoactivity of TiO2 nanoparticles obtained by hydrothermal treatment. Applied Catalysis B: Environmental, 2008, 78, 176-182.	20.2	27
64	Study of the synergic effect of sulphate pre-treatment and platinisation on the highly improved photocatalytic activity of TiO2. Applied Catalysis B: Environmental, 2008, 81, 49-55.	20.2	34
65	Nanostructured Tiâ€“M mixed-metal oxides: Toward a visible light-driven photocatalyst. Journal of Catalysis, 2008, 254, 272-284.	6.2	116
66	Synthesis, Characterization, and Photodegradation Behavior of Single-Phase Anatase TiO2 Materials Synthesized from Ti-oxychloride Precursors. Langmuir, 2008, 24, 11111-11118.	3.5	7
67	Photocatalytic properties of surface modified platinised TiO2: Effects of particle size and structural composition. Catalysis Today, 2007, 129, 43-49.	4.4	82
68	Hydrothermal preparation of highly photoactive TiO2 nanoparticles. Catalysis Today, 2007, 129, 50-58.	4.4	114
69	EXAFS study and photocatalytic properties of un-doped and iron-doped ZrO2-TiO2 (photo-) catalysts. Catalysis Today, 2007, 128, 245-250.	4.4	21
70	XAFS study of high-disperse Pd-containing nanosystem supported on TiO2 oxide matrix. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 575, 180-184.	1.6	3
71	The effect of dosage on the photocatalytic degradation of organic pollutants. Research on Chemical Intermediates, 2007, 33, 351-358.	2.7	19
72	Effect of TiO2 acidic pre-treatment on the photocatalytic properties for phenol degradation. Journal of Photochemistry and Photobiology A: Chemistry, 2006, 179, 20-27.	3.9	133

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73	Structural and surface approach to the enhanced photocatalytic activity of sulfated TiO2 photocatalyst. Applied Catalysis B: Environmental, 2006, 63, 45-59.	20.2	228
74	Cu-doped TiO2 systems with improved photocatalytic activity. Applied Catalysis B: Environmental, 2006, 67, 41-51.	20.2	491
75	EXAFS Study of Fe3 Interaction with ZrO2 and TiO2 Oxides. Physica Scripta, 2005, , 736.	2.5	1
76	Gas-phase ethanol photocatalytic degradation study with TiO2 doped with Fe, Pd and Cu. Journal of Molecular Catalysis A, 2004, 215, 153-160.	4.8	112
77	Enhancement of TiO2/C photocatalytic activity by sulfate promotion. Applied Catalysis A: General, 2004, 259, 235-243.	4.3	37
78	Title is missing!. Journal of Materials Science, 2003, 38, 2219-2222.	3.7	0
79	ACID-base properties of a CERIA-lanthana catalytic system. Journal of Thermal Analysis and Calorimetry, 2003, 72, 223-229.	3.6	6
80	Catalytic activity of a ceria-lanthana system for 4-methylpentan-2-ol dehydration. Reaction Kinetics and Catalysis Letters, 2003, 79, 93-99.	0.6	6
81	Influence of residual carbon on the photocatalytic activity of TiO2/C samples for phenol oxidation. Applied Catalysis B: Environmental, 2003, 43, 163-173.	20.2	46
82	TiO2 activation by using activated carbon as a support Part II. Photoreactivity and FTIR study. Applied Catalysis B: Environmental, 2003, 44, 153-160.	20.2	122
83	TiO2 activation by using activated carbon as a support Part I. Surface characterisation and decantability study. Applied Catalysis B: Environmental, 2003, 44, 161-172.	20.2	151
84	Photocatalytic behaviour of sulphated TiO2 for phenol degradation. Applied Catalysis B: Environmental, 2003, 45, 39-50.	20.2	118
85	XAFS study of an intermetallic TiFe0.95Zr0.03Mo0.02 system for CO2 conversion. Nuclear Instruments & Methods in Physics Research B, 2003, 199, 216-221.	1.4	0
86	Preparation, characterisation and activity of CeO2-ZrO2 catalysts for alcohol dehydration. Journal of Molecular Catalysis A, 2003, 204-205, 629-635.	4.8	49
87	Effect of ZrO2 incorporation and calcination temperature on the photocatalytic activity of commercial TiO2 for salicylic acid and Cr(VI) photodegradation. Applied Catalysis A: General, 2002, 231, 185-199.	4.3	54
88	Modification of the physicochemical properties of commercial TiO2 samples by soft mechanical activation. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 148, 341-348.	3.9	43
89	A novel preparation of high surface area TiO2 nanoparticles from alkoxide precursor and using active carbon as additive. Catalysis Today, 2002, 76, 91-101.	4.4	96
90	Thermal Behaviour of a TiO2â€"ZrO2 Microcomposite Prepared by Chemical Coating. Magyar AprÃ³vad KÃ¶zlemÃ©nyek, 2002, 67, 229-238.	1.4	11

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91	CeO2â€“La2O3 catalytic system. Part II. Acidâ€“base properties and catalytic activity for 4-methylpentan-2-ol dehydration. Physical Chemistry Chemical Physics, 2001, 3, 2928-2934.	2.8	20
92	Preparation and Physicochemical Properties of ZrO2and Fe/ZrO2Prepared by a Solâˆ'Gel Technique. Langmuir, 2001, 17, 202-210.	3.5	210
93	Influence of Carboxylic Acid on the Photocatalytic Reduction of Cr(VI) Using Commercial TiO2. Langmuir, 2001, 17, 7174-7177.	3.5	76
94	CH4 and CO2 transformations initiated by hydrogen-accumulated systems. Role of spillover and lattice bound hydrogen. Studies in Surface Science and Catalysis, 2001, , 239-250.	1.5	3
95	Structural determination of the Fe-modified zirconium oxide. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 470, 341-346.	1.6	19
96	EXAFS study of the Fex/ZrO2composite nanomaterials obtained by solâ€“gel synthesis. Journal of Synchrotron Radiation, 2001, 8, 528-530.	2.4	3
97	Oxidative dehydrogenation of propane over V2O5/TiO2/SiO2 catalysts obtained by grafting titanium and vanadium alkoxides on silica. Applied Catalysis A: General, 2001, 214, 203-212.	4.3	44
98	Photocatalytic deactivation of commercial TiO2 samples during simultaneous photoreduction of Cr(VI) and photooxidation of salicylic acid. Journal of Photochemistry and Photobiology A: Chemistry, 2001, 138, 79-85.	3.9	146
99	Redox behavior of CeO2â€“ZrO2 mixed oxides. Applied Catalysis B: Environmental, 2001, 30, 75-85.	20.2	106
100	Characterization of Hexagonal Boron Nitride Powders. Materials Science Forum, 2001, 383, 185-190.	0.3	0
101	Modification of the oxygen storage capacity of CeO2â€“ZrO2 mixed oxides after redox cycling aging. Catalysis Today, 2000, 59, 373-386.	4.4	190
102	Redox behavior of CeO2â€“ZrO2 mixed oxides. Applied Catalysis B: Environmental, 2000, 27, 49-63.	20.2	220
103	CeO2â€“La2O3 catalytic system. Part I. Preparation and characterisation of catalysts. Physical Chemistry Chemical Physics, 2000, 2, 4453-4459.	2.8	54
104	Iron-doped titania semiconductor powders prepared by a solâ€“gel method. Part I: synthesis and characterization. Applied Catalysis A: General, 1999, 177, 111-120.	4.3	153
105	Textural and phase stability of CexZr1âˆ'xO2 mixed oxides under high temperature oxidising conditions. Catalysis Today, 1999, 50, 271-284.	4.4	105
106	Influence of high temperature treatments under net oxidizing and reducing conditions on the oxygen storage and buffering properties of a Ce0.68Zr0.32O2 mixed oxide. Catalysis Today, 1999, 54, 93-100.	4.4	52
107	Low temperature selective methane activation to alkenes by a new hydrogen-accumulating system. Chemical Communications, 1999, , 943-944.	4.1	4
108	Transformation of CO2Alone and Combined with Ethanol Present in the Hydrogen-Accumulating Intermetallic System TiFe0.95Zr0.03Mo0.02, Pd/SiO2, and Î³-Al2O3. Langmuir, 1999, 15, 6601-6604.	3.5	7

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109	Structure, Texture, Surface Acidity, and Catalytic Activity of AlPO4â€“ZrO2(5â€“50 wt% ZrO2) Catalysts Prepared by a Solâ€“Gel Procedure. Journal of Catalysis, 1998, 179, 483-494.	6.2	38
110	Heterogeneous photocatalytic reactions of nitrite oxidation and Cr(VI) reduction on iron-doped titania prepared by the wet impregnation method. Applied Catalysis B: Environmental, 1998, 16, 187-196.	20.2	143
111	Evidence of transalkylation during liquid-phase isopropylation of naphthalene. Reaction Kinetics and Catalysis Letters, 1998, 63, 3-8.	0.6	11
112	Catalytic properties of sulfated and non-sulfated ZrO2â€“SiO2: effects of the sulfation submitted before or after the calcination process, in the cyclohexene isomerization reaction. Journal of Molecular Catalysis A, 1998, 135, 155-162.	4.8	8
113	Liquid-phase alkylation of naphthalene by isopropanol over zeolites. Part 1: HY zeolites. Applied Catalysis A: General, 1998, 168, 81-92.	4.3	63
114	Surface and structural characterization of CexZr1-xO2 CEZIRENCAT mixed oxides as potential three-way catalyst promoters. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 3717-3726.	1.7	193
115	Effects of H2O2and SO42-Species on the Crystalline Structure and Surface Properties of ZrO2Processed by Alkaline Precipitation. Chemistry of Materials, 1997, 9, 1256-1261.	6.7	41
116	Title is missing!. Journal of Sol-Gel Science and Technology, 1997, 10, 165-175.	2.4	11
117	Photoconductive and photocatalytic properties of ZrTiO4. Comparison with the parent oxides TiO2 and ZrO2. Journal of Photochemistry and Photobiology A: Chemistry, 1997, 108, 179-185.	3.9	69
118	Catalytic Properties of ZrO2â€“SiO2: Effects of Sulfation in the Cyclohexene Isomerization Reaction. Journal of Catalysis, 1996, 161, 605-613.	6.2	27
119	Synthesis, characterization and photocatalytic properties of iron-doped titania semiconductors prepared from TiO2 and iron(III) acetylacetonate. Journal of Molecular Catalysis A, 1996, 106, 267-276.	4.8	142
120	ZrO2î—¸SiO2 mixed oxides: surface aspects, photophysical properties and photoreactivity for 4-nitrophenol oxidation in aqueous phase. Journal of Molecular Catalysis A, 1996, 109, 239-248.	4.8	31
121	Heterogeneous Photocatalytic Oxidation of Liquid Isopropanol by TiO2, ZrO2 and ZrTiO4 Powders. Studies in Surface Science and Catalysis, 1994, , 721-728.	1.5	13
122	Kinetic study of zirconia crystallization from amorphous ZrO2-SiO2 composite precursors processed by sol-gel chemistry. Journal of Sol-Gel Science and Technology, 1994, 2, 353-357.	2.4	5
123	Combined use of XPS, IR and EDAX techniques for the characterization of ZrO2-SiO2 powders prepared by a sol-gel process. Applied Surface Science, 1994, 81, 325-329.	6.1	26
124	Thermal evolution of TiO2î—¸ZrO2 composites prepared by chemical coating processing. Materials Letters, 1994, 20, 339-344.	2.6	8
125	Effects of sulfation on the crystallization and textural properties of processed ZrO2. Materials Letters, 1994, 20, 345-349.	2.6	5
126	Surface characterization of ZrO2-SiO2 systems prepared by a sol-gel method. Applied Surface Science, 1993, 70-71, 226-229.	6.1	19