

Detlef W Bahnemann

List of Publications by Year in descending order

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530
papers

58,704
citations

2543

96
h-index

1155

229
g-index

558
all docs

558
docs citations

558
times ranked

40171
citing authors

#	ARTICLE	IF	CITATIONS
1	Environmental Applications of Semiconductor Photocatalysis. <i>Chemical Reviews</i> , 1995, 95, 69-96.	23.0	17,205
2	Understanding TiO ₂ Photocatalysis: Mechanisms and Materials. <i>Chemical Reviews</i> , 2014, 114, 9919-9986.	23.0	4,658
3	Visible-light activation of TiO ₂ photocatalysts: Advances in theory and experiments. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2015, 25, 1-29.	5.6	1,013
4	Photoelectrocatalytic materials for environmental applications. <i>Journal of Materials Chemistry</i> , 2009, 19, 5089.	6.7	880
5	Photocatalytic water treatment: solar energy applications. <i>Solar Energy</i> , 2004, 77, 445-459.	2.9	843
6	Preparation and characterization of quantum-size titanium dioxide. <i>The Journal of Physical Chemistry</i> , 1988, 92, 5196-5201.	2.9	842
7	Enhancement of photocatalytic activity by metal deposition: characterisation and photonic efficiency of Pt, Au and Pd deposited on TiO ₂ catalyst. <i>Water Research</i> , 2004, 38, 3001-3008.	5.3	776
8	Preparation and characterization of quantum size zinc oxide: a detailed spectroscopic study. <i>The Journal of Physical Chemistry</i> , 1987, 91, 3789-3798.	2.9	715
9	Photolysis of chloroform and other organic molecules in aqueous titanium dioxide suspensions. <i>Environmental Science & Technology</i> , 1991, 25, 494-500.	4.6	672
10	Photocatalytic production of hydrogen peroxides and organic peroxides in aqueous suspensions of titanium dioxide, zinc oxide, and desert sand. <i>Environmental Science & Technology</i> , 1988, 22, 798-806.	4.6	624
11	Photochemical splitting of water for hydrogen production by photocatalysis: A review. <i>Solar Energy Materials and Solar Cells</i> , 2014, 128, 85-101.	3.0	578
12	Photocatalysis in water environments using artificial and solar light. <i>Catalysis Today</i> , 2000, 58, 199-230.	2.2	467
13	Charge Carrier Dynamics at TiO ₂ Particles: Reactivity of Free and Trapped Holes. <i>Journal of Physical Chemistry B</i> , 1997, 101, 4265-4275.	1.2	458
14	Advanced oxidation of a reactive dyebath effluent: comparison of O ₃ , H ₂ O ₂ /UV-C and TiO ₂ /UV-A processes. <i>Water Research</i> , 2002, 36, 1143-1154.	5.3	424
15	Mesoporous titania photocatalysts: preparation, characterization and reaction mechanisms. <i>Journal of Materials Chemistry</i> , 2011, 21, 11686.	6.7	417
16	Undesired Role of Sacrificial Reagents in Photocatalysis. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 3479-3483.	2.1	398
17	Tailored Titanium Dioxide Nanomaterials: Anatase Nanoparticles and Brookite Nanorods as Highly Active Photocatalysts. <i>Chemistry of Materials</i> , 2010, 22, 2050-2060.	3.2	394
18	Flash photolysis observation of the absorption spectra of trapped positive holes and electrons in colloidal titanium dioxide. <i>The Journal of Physical Chemistry</i> , 1984, 88, 709-711.	2.9	391

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19	Well-designed 3D ZnIn ₂ S ₄ nanosheets/TiO ₂ nanobelts as direct Z-scheme photocatalysts for CO ₂ photoreduction into renewable hydrocarbon fuel with high efficiency. <i>Applied Catalysis B: Environmental</i> , 2017, 219, 611-618.	10.8	375
20	TiO ₂ for water treatment: Parameters affecting the kinetics and mechanisms of photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2010, 99, 398-406.	10.8	365
21	Charge carrier trapping, recombination and transfer during TiO ₂ photocatalysis: An overview. <i>Catalysis Today</i> , 2019, 335, 78-90.	2.2	350
22	A comparative study of nanometer sized Fe(III)-doped TiO ₂ photocatalysts: synthesis, characterization and activity. <i>Journal of Materials Chemistry</i> , 2003, 13, 2322-2329.	6.7	346
23	Photocatalytic Degradation of 4-Chlorophenol in Aerated Aqueous Titanium Dioxide Suspensions: A Kinetic and Mechanistic Study. <i>Langmuir</i> , 1996, 12, 6368-6376.	1.6	341
24	Heterogeneous photocatalytic organic synthesis: state-of-the-art and future perspectives. <i>Green Chemistry</i> , 2016, 18, 5391-5411.	4.6	336
25	The application of TiO ₂ photocatalysis for disinfection of water contaminated with pathogenic micro-organisms: a review. <i>Research on Chemical Intermediates</i> , 2007, 33, 359-375.	1.3	306
26	Advanced chemical oxidation of reactive dyes in simulated dyehouse effluents by ferrioxalate-Fenton/UV-A and TiO ₂ /UV-A processes. <i>Dyes and Pigments</i> , 2000, 47, 207-218.	2.0	279
27	Photocatalytic oxidation of sulfur dioxide in aqueous suspensions of α -iron oxide (Fe ₂ O ₃). <i>The Journal of Physical Chemistry</i> , 1989, 93, 6371-6381.	2.9	268
28	Kinetics and mechanisms of charge transfer processes in photocatalytic systems: A review. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2012, 13, 263-276.	5.6	264
29	Mechanistic studies of water detoxification in illuminated TiO ₂ suspensions. <i>Solar Energy Materials and Solar Cells</i> , 1991, 24, 564-583.	0.4	222
30	Enhancement of the photocatalytic activity of various TiO ₂ materials by platinisation. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002, 148, 223-231.	2.0	222
31	Photo-induced hydrophilicity and self-cleaning: models and reality. <i>Energy and Environmental Science</i> , 2012, 5, 7491.	15.6	222
32	Best Practice in Photocatalysis: Comparing Rates or Apparent Quantum Yields?. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1907-1910.	2.1	216
33	A novel preparation of iron-doped TiO ₂ nanoparticles with enhanced photocatalytic activity. <i>Chemical Communications</i> , 2000, , 1539-1540.	2.2	207
34	Large-scale Synthesis of Urchin-like Mesoporous TiO ₂ Hollow Spheres by Targeted Etching and Their Photoelectrochemical Properties. <i>Advanced Functional Materials</i> , 2014, 24, 95-104.	7.8	204
35	Palladium Doped Porous Titania Photocatalysts: Impact of Mesoporous Order and Crystallinity. <i>Chemistry of Materials</i> , 2010, 22, 108-116.	3.2	203
36	Infrared spectra of oxalate, malonate and succinate adsorbed on the aqueous surface of rutile, anatase and lepidocrocite measured with in situ ATR-FTIR. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2006, 150, 208-219.	0.8	194

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37	Gold Nanoparticles on Mesoporous Interparticle Networks of Titanium Dioxide Nanocrystals for Enhanced Photonic Efficiencies. <i>Journal of Physical Chemistry C</i> , 2009, 113, 7429-7435.	1.5	193
38	Sequential Process Combination of Photocatalytic Oxidation and Dark Reduction for the Removal of Organic Pollutants and Cr(VI) using Ag/TiO ₂ . <i>Environmental Science & Technology</i> , 2017, 51, 3973-3981.	4.6	193
39	Comparative photocatalytic activity of sol-gel derived rare earth metal (La, Nd, Sm and Dy)-doped ZnO photocatalysts for degradation of dyes. <i>RSC Advances</i> , 2018, 8, 17582-17594.	1.7	193
40	Mechanism of the hydroxide ion-initiated decomposition of ozone in aqueous solution. <i>The Journal of Physical Chemistry</i> , 1982, 86, 255-259.	2.9	191
41	Heterogeneous photocatalytic treatment of simulated dyehouse effluents using novel TiO ₂ -photocatalysts. <i>Applied Catalysis B: Environmental</i> , 2000, 26, 193-206.	10.8	188
42	Brookite versus anatase TiO ₂ photocatalysts: phase transformations and photocatalytic activities. <i>Photochemical and Photobiological Sciences</i> , 2013, 12, 602-609.	1.6	188
43	Enhancement of photocatalytic activity by semiconductor heterojunctions: $\hat{\Gamma}$ -Fe ₂ O ₃ , WO ₃ and CdS deposited on ZnO. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002, 148, 283-293.	2.0	185
44	Photocatalytic conversion of biomass into valuable products: a meaningful approach?. <i>Green Chemistry</i> , 2018, 20, 1169-1192.	4.6	181
45	Heterogeneous photocatalytic reactions comparing TiO ₂ and Pt/TiO ₂ . <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002, 148, 247-255.	2.0	178
46	Improving the Photocatalytic Performance of Mesoporous Titania Films by Modification with Gold Nanostructures. <i>Chemistry of Materials</i> , 2009, 21, 1645-1653.	3.2	170
47	Removal of microorganisms and their chemical metabolites from water using semiconductor photocatalysis. <i>Journal of Hazardous Materials</i> , 2012, 211-212, 161-171.	6.5	170
48	Highly efficient Y and V co-doped ZnO photocatalyst with enhanced dye sensitized visible light photocatalytic activity. <i>Catalysis Today</i> , 2017, 284, 169-178.	2.2	166
49	Detection of the intermediates of colloidal TiO ₂ -catalysed photoreactions. <i>Faraday Discussions of the Chemical Society</i> , 1984, 78, 151.	2.2	165
50	Photocatalytic Activities of Different Well-defined Single Crystal TiO ₂ Surfaces: Anatase versus Rutile. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 2461-2465.	2.1	164
51	A Facile Surface Passivation of Hematite Photoanodes with TiO ₂ Overlayers for Efficient Solar Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 24053-24062.	4.0	164
52	Ultrasmall Metal Oxide Particles: Preparation, Photophysical Characterization, and Photocatalytic Properties. <i>Israel Journal of Chemistry</i> , 1993, 33, 115-136.	1.0	162
53	Photonic efficiency and quantum yield of formaldehyde formation from methanol in the presence of various TiO ₂ photocatalysts. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002, 148, 169-176.	2.0	161
54	Facile fabrication of highly efficient modified ZnO photocatalyst with enhanced photocatalytic, antibacterial and anticancer activity. <i>RSC Advances</i> , 2016, 6, 78335-78350.	1.7	154

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55	Mesostructured Pt/TiO ₂ Nanocomposites as Highly Active Photocatalysts for the Photooxidation of Dichloroacetic Acid. <i>Journal of Physical Chemistry C</i> , 2011, 115, 5784-5791.	1.5	150
56	CO ₂ towards fuels: A review of catalytic conversion of carbon dioxide to hydrocarbons. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104756.	3.3	147
57	Solar water treatment: principles and reactors. <i>Water Science and Technology</i> , 1997, 35, 137-148.	1.2	142
58	Photodestruction of dichloroacetic acid catalyzed by nano-sized TiO ₂ particles. <i>Applied Catalysis B: Environmental</i> , 2002, 36, 161-169.	10.8	140
59	One-step hydrothermal synthesis of Bi-TiO ₂ nanotube/graphene composites: An efficient photocatalyst for spectacular degradation of organic pollutants under visible light irradiation. <i>Applied Catalysis B: Environmental</i> , 2017, 218, 758-769.	10.8	138
60	Construction of ternary hybrid layered reduced graphene oxide supported g-C ₃ N ₄ -TiO ₂ nanocomposite and its photocatalytic hydrogen production activity. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 3892-3904.	3.8	137
61	Ease synthesis of mesoporous WO ₃ @TiO ₂ nanocomposites with enhanced photocatalytic performance for photodegradation of herbicide imazapyr under visible light and UV illumination. <i>Journal of Hazardous Materials</i> , 2016, 307, 43-54.	6.5	131
62	Enhanced Photoelectrochemical Water Oxidation on Nanostructured Hematite Photoanodes via p-CaFe ₂ O ₄ /n-Fe ₂ O ₃ Heterojunction Formation. <i>Journal of Physical Chemistry C</i> , 2015, 119, 5864-5871.	1.5	130
63	WO ₃ @TiO ₂ vs. TiO ₂ photocatalysts: effect of the W precursor and amount on the photocatalytic activity of mixed oxides. <i>Catalysis Today</i> , 2013, 209, 28-34.	2.2	129
64	Quantum Yield of Formaldehyde Formation in the Presence of Colloidal TiO ₂ -Based Photocatalysts: Effect of Intermittent Illumination, Platinization, and Deoxygenation. <i>Journal of Physical Chemistry B</i> , 2004, 108, 14082-14092.	1.2	126
65	A fine route to tune the photocatalytic activity of TiO ₂ . <i>Applied Catalysis B: Environmental</i> , 2006, 63, 31-40.	10.8	125
66	Environmental photochemistry: Is iron oxide (hematite) an active photocatalyst? A comparative study: γ -Fe ₂ O ₃ , ZnO, TiO ₂ . <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1989, 48, 161-169.	2.0	123
67	Visible light activated carbon and nitrogen co-doped mesoporous TiO ₂ as efficient photocatalyst for degradation of ibuprofen. <i>Separation and Purification Technology</i> , 2017, 173, 258-268.	3.9	122
68	Preparation and Characterization of Transparent Hydrophilic Photocatalytic TiO ₂ /SiO ₂ Thin Films on Polycarbonate. <i>Langmuir</i> , 2013, 29, 3730-3739.	1.6	120
69	Bi ₂ WO ₆ Inverse Opals: Facile Fabrication and Efficient Visible-Light-Driven Photocatalytic and Photoelectrochemical Water-Splitting Activity. <i>Small</i> , 2011, 7, 2714-2720.	5.2	119
70	Formation of Nitroaromatic Compounds in Advanced Oxidation Processes: Photolysis versus Photocatalysis. <i>Environmental Science & Technology</i> , 1999, 33, 294-300.	4.6	117
71	The role of electron transfer in photocatalysis: Fact and fictions. <i>Applied Catalysis B: Environmental</i> , 2012, 128, 91-104.	10.8	116
72	pH-Control of the Photocatalytic Degradation Mechanism of Rhodamine B over Pb ₃ Nb ₄ O ₁₃ . <i>Journal of Physical Chemistry C</i> , 2011, 115, 8014-8023.	1.5	115

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73	Photonic efficiency and mechanism of photocatalytic molecular hydrogen production over platinumized titanium dioxide from aqueous methanol solutions. <i>Catalysis Today</i> , 2011, 161, 196-201.	2.2	115
74	Electron transfer reactions of halogenated aliphatic peroxy radicals: measurement of absolute rate constants by pulse radiolysis. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1980, , 296.	0.9	113
75	Formation of positive ions and other primary species in the oxidation of sulphides by hydroxyl radicals. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1975, , 675-685.	0.9	112
76	Light-induced degradation of perfluorocarboxylic acids in the presence of titanium dioxide. <i>Chemosphere</i> , 2007, 67, 785-792.	4.2	112
77	Photoelectrochemical and theoretical investigations of spinel type ferrites ($M_{1-x}Fe_{3x}O_4$) for water splitting: a mini-review. <i>Journal of Photonics for Energy</i> , 2016, 7, 012009.	0.8	111
78	Solar Water Detoxification: Novel TiO ₂ Powders as Highly Active Photocatalysts. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 1997, 119, 120-125.	1.1	110
79	In situ synthesis of ZnO/ZnTe common cation heterostructure and its visible-light photocatalytic reduction of CO ₂ into CH ₄ . <i>Applied Catalysis B: Environmental</i> , 2015, 166-167, 345-352.	10.8	110
80	Photocatalytic reduction of Cr(VI) on hematite nanoparticles in the presence of oxalate and citrate. <i>Applied Catalysis B: Environmental</i> , 2019, 242, 218-226.	10.8	110
81	Heterogeneous photocatalysed degradation of two selected pesticide derivatives, triclopyr and daminozid in aqueous suspensions of titanium dioxide. <i>Journal of Environmental Management</i> , 2006, 80, 99-106.	3.8	108
82	TiO ₂ decoration of graphene layers for highly efficient photocatalyst: Impact of calcination at different gas atmosphere on photocatalytic efficiency. <i>Applied Catalysis B: Environmental</i> , 2013, 129, 62-70.	10.8	108
83	Highly Active Crystalline Mesoporous TiO ₂ Films Coated onto Polycarbonate Substrates for Self-Cleaning Applications. <i>Journal of Physical Chemistry C</i> , 2011, 115, 10405-10411.	1.5	107
84	Efficient photocatalysis of the irreversible one-electron and two-electron reduction of haloethane on platinumized colloidal titanium dioxide in aqueous suspension. <i>The Journal of Physical Chemistry</i> , 1987, 91, 3782-3788.	2.9	106
85	Self-Cleaning Properties, Mechanical Stability, and Adhesion Strength of Transparent Photocatalytic TiO ₂ -ZnO Coatings on Polycarbonate. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 2270-2278.	4.0	106
86	Highly Efficient and Selective Oxidation of Aromatic Alcohols Photocatalyzed by Nanoporous Hierarchical Pt/Bi ₂ WO ₆ in Organic Solvent-Free Environment. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 1257-1269.	4.0	106
87	Soft and hard templates assisted synthesis mesoporous CuO/g-C ₃ N ₄ heterostructures for highly enhanced and accelerated Hg(II) photoreduction under visible light. <i>Journal of Colloid and Interface Science</i> , 2020, 580, 223-233.	5.0	106
88	Photocatalytic degradation of organic compounds: accelerating the process efficiency. <i>Water Science and Technology</i> , 1997, 35, 79-86.	1.2	105
89	Titanium dioxide mediated photocatalytic degradation of 1,2-diethyl phthalate. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2001, 143, 213-219.	2.0	104
90	ATR-FTIR measurements and quantum chemical calculations concerning the adsorption and photoreaction of oxalic acid on TiO ₂ . <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 3232.	1.3	103

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91	Versatile Aerogel Fabrication by Freezing and Subsequent Freeze-Drying of Colloidal Nanoparticle Solutions. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 1200-1203.	7.2	103
92	Long-term investigation of the photocatalytic hydrogen production on platinized TiO ₂ : an isotopic study. <i>Energy and Environmental Science</i> , 2014, 7, 1420.	15.6	102
93	One-pot, self-assembled hydrothermal synthesis of 3D flower-like CuS/g-C ₃ N ₄ composite with enhanced photocatalytic activity under visible-light irradiation. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 115, 59-68.	1.9	102
94	Hematite and Magnetite Nanostructures for Green and Sustainable Energy Harnessing and Environmental Pollution Control: A Review. <i>Chemical Research in Toxicology</i> , 2020, 33, 1292-1311.	1.7	102
95	Iron-based photocatalytic and photoelectrocatalytic nano-structures: Facts, perspectives, and expectations. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 1065-1095.	10.8	100
96	Nanoporous TiO ₂ spheres with tailored textural properties: Controllable synthesis, formation mechanism, and photochemical applications. <i>Progress in Materials Science</i> , 2020, 109, 100620.	16.0	100
97	Addition of oxygen to organic sulfur radicals. <i>The Journal of Physical Chemistry</i> , 1978, 82, 2777-2780.	2.9	99
98	Photocatalytic degradation of naphthalene and anthracene: GC-MS analysis of the degradation pathway. <i>Research on Chemical Intermediates</i> , 1997, 23, 247-274.	1.3	99
99	Large scale studies in solar catalytic wastewater treatment. <i>Catalysis Today</i> , 1999, 54, 267-282.	2.2	99
100	H ₂ O ₂ /UV-C and Fe ²⁺ /H ₂ O ₂ /UV-C versus TiO ₂ /UV-A Treatment for Reactive Dye Wastewater. <i>Journal of Environmental Engineering, ASCE</i> , 2000, 126, 903-911.	0.7	99
101	One-step synthesis of mesoporous platinum/titania nanocomposites as photocatalyst with enhanced photocatalytic activity for methanol oxidation. <i>Green Chemistry</i> , 2011, 13, 428.	4.6	99
102	Layer-by-Layer TiO ₂ /WO ₃ Thin Films As Efficient Photocatalytic Self-Cleaning Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 16859-16866.	4.0	99
103	Modeling and Optimization of the Photocatalytic Reduction of Molecular Oxygen to Hydrogen Peroxide over Titanium Dioxide. <i>ACS Catalysis</i> , 2019, 9, 25-37.	5.5	98
104	Direct Synthesis of Photocatalytically Active Rutile TiO ₂ Nanorods Partly Decorated with Anatase Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2010, 114, 4909-4915.	1.5	93
105	Research Update: Photoelectrochemical water splitting and photocatalytic hydrogen production using ferrites (MFe ₂ O ₄) under visible light irradiation. <i>APL Materials</i> , 2015, 3, .	2.2	92
106	Preparation and characterization of a novel photocatalytic self-cleaning PES nanofiltration membrane by embedding a visible-driven photocatalyst boron doped-TiO ₂ SiO ₂ /CoFe ₂ O ₄ nanoparticles. <i>Separation and Purification Technology</i> , 2019, 209, 764-775.	3.9	91
107	Antenna mechanism and deaggregation concept: novel mechanistic principles for photocatalysis. <i>Comptes Rendus Chimie</i> , 2006, 9, 761-773.	0.2	90
108	Kinetic and Mechanistic Investigations of Multielectron Transfer Reactions Induced by Stored Electrons in TiO ₂ Nanoparticles: A Stopped Flow Study. <i>Journal of Physical Chemistry A</i> , 2011, 115, 2139-2147.	1.1	90

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109	Toxicity, phototoxicity and biocidal activity of nanoparticles employed in photocatalysis. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2016, 29, 1-28.	5.6	90
110	Two-dimensional Layered Zinc Silicate Nanosheets with Excellent Photocatalytic Performance for Organic Pollutant Degradation and CO ₂ Conversion. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 8103-8108.	7.2	90
111	Enhanced photocatalytic production of molecular hydrogen on TiO ₂ modified with Pt-polypyrrole nanocomposites. <i>Photochemical and Photobiological Sciences</i> , 2009, 8, 683-690.	1.6	88
112	Mesostructure Au/TiO ₂ nanocomposites for highly efficient catalytic reduction of p-nitrophenol. <i>Journal of Molecular Catalysis A</i> , 2012, 358, 145-151.	4.8	88
113	Inverse Opal Photonic Crystals as a Strategy to Improve Photocatalysis: Underexplored Questions. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3903-3910.	2.1	88
114	Effect of the degree of inversion on optical properties of spinel ZnFe ₂ O ₄ . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 28267-28278.	1.3	88
115	Performance of mesoporous γ -Fe ₂ O ₃ /g-C ₃ N ₄ heterojunction for photoreduction of Hg(II) under visible light illumination. <i>Ceramics International</i> , 2020, 46, 23098-23106.	2.3	88
116	Fundamental problems of water splitting at cadmium sulfide. <i>Chemical Physics Letters</i> , 1986, 127, 419-423.	1.2	87
117	TiO ₂ Thin Film Electrodes: Correlation between Photocatalytic Activity and Electrochemical Properties. <i>Journal of Physical Chemistry C</i> , 2008, 112, 19097-19101.	1.5	87
118	Hydroxyapatite/titanium dioxide nanocomposites for controlled photocatalytic NO oxidation. <i>Applied Catalysis B: Environmental</i> , 2011, 106, 398-404.	10.8	87
119	Quantum yields of hydroxyl radicals in illuminated TiO ₂ nanocrystallite layers. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002, 148, 387-391.	2.0	86
120	Photonic efficiency for methanol photooxidation and hydroxyl radical generation on silica-supported TiO ₂ photocatalysts. <i>Applied Catalysis B: Environmental</i> , 2006, 62, 201-207.	10.8	86
121	Structure and stability of radical cations from cyclic and open-chain dithia compounds in aqueous solutions. <i>Journal of the American Chemical Society</i> , 1979, 101, 5322-5329.	6.6	85
122	One electron reduction of CCl ₄ in oxygenated aqueous solutions: A CCl ₃ O ₂ -free radical mediated formation of Cl [•] and CO ₂ . <i>Chemico-Biological Interactions</i> , 1983, 47, 15-27.	1.7	85
123	Cobalt(II) tetrasulfophthalocyanine on titanium dioxide: A new efficient electron relay for the photocatalytic formation and depletion of hydrogen peroxide in aqueous suspensions. <i>The Journal of Physical Chemistry</i> , 1987, 91, 2109-2117.	2.9	83
124	Photodegradation of methylene blue in water, a standard method to determine the activity of photocatalytic coatings?. <i>Research on Chemical Intermediates</i> , 2008, 34, 381-392.	1.3	83
125	Mesoporous TiO ₂ nanocrystals as efficient photocatalysts: Impact of calcination temperature and phase transformation on photocatalytic performance. <i>Chemical Engineering Journal</i> , 2015, 264, 417-424.	6.6	83
126	Designing Optimal Metal-Doped Photocatalysts: Correlation between Photocatalytic Activity, Doping Ratio, and Particle Size. <i>Journal of Physical Chemistry C</i> , 2012, 116, 25558-25562.	1.5	82

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127	Novel Ag decorated, BiOCl surface doped AgVO ₃ nanobelt ternary composite with Z-scheme homojunction-heterojunction interface for high prolific photo switching, quantum efficiency and hole mediated photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2021, 293, 120224.	10.8	82
128	Semiconductor-mediated photocatalyzed degradation of two selected pesticide derivatives, terbacil and 2,4,5-tribromoimidazole, in aqueous suspension. <i>Applied Catalysis B: Environmental</i> , 2002, 36, 95-111.	10.8	81
129	FT-IR-ATR as a tool to probe photocatalytic interfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005, 265, 73-80.	2.3	81
130	Mesoporous TiO ₂ nanostructures: a route to minimize Pt loading on titania photocatalysts for hydrogen production. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 20155.	1.3	81
131	Influence of the Dopant Concentration on the Photocatalytic Activity: Al-Doped TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2015, 119, 24695-24703.	1.5	81
132	Rate constants of the reaction of the hydrated electron and hydroxyl radical with ozone in aqueous solution. <i>The Journal of Physical Chemistry</i> , 1982, 86, 252-255.	2.9	80
133	Photocatalytic detoxification with the thin-film fixed-bed reactor (TFFBR): Clean-up of highly polluted landfill effluents using a novel TiO ₂ -photocatalyst. <i>Solar Energy</i> , 1996, 56, 455-469.	2.9	80
134	Novel (and better?) titania-based photocatalysts: Brookite nanorods and mesoporous structures. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2010, 216, 183-193.	2.0	78
135	Highly active non-metals doped mixed-phase TiO ₂ for photocatalytic oxidation of ibuprofen under visible light. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 346, 530-540.	2.0	78
136	Photodegradation of the herbicide imazapyr over mesoporous In ₂ O ₃ -TiO ₂ nanocomposites with enhanced photonic efficiency. <i>Separation and Purification Technology</i> , 2018, 205, 66-73.	3.9	78
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