

Detlef W Bahnemann

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521
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h-index

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558
ext. papers

53,737
ext. citations

6.4
avg, IF

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L-index

#	Paper	IF	Citations
521	Environmental Applications of Semiconductor Photocatalysis. <i>Chemical Reviews</i> , 1995 , 95, 69-96	68.1	15722
520	Understanding TiO ₂ photocatalysis: mechanisms and materials. <i>Chemical Reviews</i> , 2014 , 114, 9919-86	68.1	3646
519	Photoelectrocatalytic materials for environmental applications. <i>Journal of Materials Chemistry</i> , 2009 , 19, 5089		791
518	Preparation and characterization of quantum-size titanium dioxide. <i>The Journal of Physical Chemistry</i> , 1988 , 92, 5196-5201		779
517	Photocatalytic water treatment: solar energy applications. <i>Solar Energy</i> , 2004 , 77, 445-459	6.8	728
516	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, 3001-8	12.5	706
515	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	16.4	679
514	Preparation and characterization of quantum size zinc oxide: a detailed spectroscopic study. <i>The Journal of Physical Chemistry</i> , 1987 , 91, 3789-3798		636
513	Photolysis of chloroform and other organic molecules in aqueous titanium dioxide suspensions. <i>Environmental Science & Technology</i> , 1991 , 25, 494-500	10.3	592
512	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	10.3	520
511	Photochemical splitting of water for hydrogen production by photocatalysis: A review. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 128, 85-101	6.4	470
510	Charge Carrier Dynamics at TiO ₂ Particles: Reactivity of Free and Trapped Holes. <i>Journal of Physical Chemistry B</i> , 1997 , 101, 4265-4275	3.4	422
509	Photocatalysis in water environments using artificial and solar light. <i>Catalysis Today</i> , 2000 , 58, 199-230	5.3	412
508	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, 1143-54	12.5	368
507	Mesoporous titania photocatalysts: preparation, characterization and reaction mechanisms. <i>Journal of Materials Chemistry</i> , 2011 , 21, 11686		367
506	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		361
505	Tailored Titanium Dioxide Nanomaterials: Anatase Nanoparticles and Brookite Nanorods as Highly Active Photocatalysts. <i>Chemistry of Materials</i> , 2010 , 22, 2050-2060	9.6	347

504	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		327
503	TiO ₂ for water treatment: Parameters affecting the kinetics and mechanisms of photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2010 , 99, 398-406	21.8	311
502	Photocatalytic Degradation of 4-Chlorophenol in Aerated Aqueous Titanium Dioxide Suspensions: A Kinetic and Mechanistic Study. <i>Langmuir</i> , 1996 , 12, 6368-6376	4	306
501	Undesired Role of Sacrificial Reagents in Photocatalysis. <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 3479-3483	6.4	290
500	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	2.8	274
499	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	21.8	266
498	Photocatalytic oxidation of sulfur dioxide in aqueous suspensions of .alpha.-iron oxide (Fe ₂ O ₃). <i>The Journal of Physical Chemistry</i> , 1989 , 93, 6371-6381		248
497	Heterogeneous photocatalytic organic synthesis: state-of-the-art and future perspectives. <i>Green Chemistry</i> , 2016 , 18, 5391-5411	10	239
496	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	4.6	235
495	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	4.7	201
494	Charge carrier trapping, recombination and transfer during TiO ₂ photocatalysis: An overview. <i>Catalysis Today</i> , 2019 , 335, 78-90	5.3	199
493	Mechanistic studies of water detoxification in illuminated TiO ₂ suspensions. <i>Solar Energy Materials and Solar Cells</i> , 1991 , 24, 564-583		198
492	A novel preparation of iron-doped TiO ₂ nanoparticles with enhanced photocatalytic activity. <i>Chemical Communications</i> , 2000 , 1539-1540	5.8	195
491	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	15.6	189
490	Photo-induced hydrophilicity and self-cleaning: models and reality. <i>Energy and Environmental Science</i> , 2012 , 5, 7491	35.4	187
489	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	16.4	186
488	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	3.8	178
487	Palladium Doped Porous Titania Photocatalysts: Impact of Mesoporous Order and Crystallinity. <i>Chemistry of Materials</i> , 2010 , 22, 108-116	9.6	173

486	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	1.7	170
485	Mechanism of the hydroxide ion-initiated decomposition of ozone in aqueous solution. <i>The Journal of Physical Chemistry</i> , 1982 , 86, 255-259		170
484	Enhancement of photocatalytic activity by semiconductor heterojunctions: Fe ₂ O ₃ , WO ₃ and CdS deposited on ZnO. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002 , 148, 283-293	4.7	167
483	Heterogeneous photocatalytic reactions comparing TiO ₂ and Pt/TiO ₂ . <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002 , 148, 247-255	4.7	163
482	Best Practice in Photocatalysis: Comparing Rates or Apparent Quantum Yields?. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 1907-10	6.4	162
481	Heterogeneous photocatalytic treatment of simulated dyehouse effluents using novel TiO ₂ -photocatalysts. <i>Applied Catalysis B: Environmental</i> , 2000 , 26, 193-206	21.8	160
480	Improving the Photocatalytic Performance of Mesoporous Titania Films by Modification with Gold Nanostructures. <i>Chemistry of Materials</i> , 2009 , 21, 1645-1653	9.6	159
479	Detection of the intermediates of colloidal TiO ₂ -catalysed photoreactions. <i>Faraday Discussions of the Chemical Society</i> , 1984 , 78, 151		154
478	Removal of microorganisms and their chemical metabolites from water using semiconductor photocatalysis. <i>Journal of Hazardous Materials</i> , 2012 , 211-212, 161-71	12.8	152
477	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	4.7	152
476	Sequential Process Combination of Photocatalytic Oxidation and Dark Reduction for the Removal of Organic Pollutants and Cr(VI) using Ag/TiO. <i>Environmental Science & Technology</i> , 2017 , 51, 3973-3981	10.3	149
475	Ultrasmall Metal Oxide Particles: Preparation, Photophysical Characterization, and Photocatalytic Properties. <i>Israel Journal of Chemistry</i> , 1993 , 33, 115-136	3.4	142
474	Brookite versus anatase TiO ₂ photocatalysts: phase transformations and photocatalytic activities. <i>Photochemical and Photobiological Sciences</i> , 2013 , 12, 602-9	4.2	141
473	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	6.4	140
472	Solar water treatment: principles and reactors. <i>Water Science and Technology</i> , 1997 , 35, 137-148	2.2	135
471	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	5.3	132
470	Photodestruction of dichloroacetic acid catalyzed by nano-sized TiO ₂ particles. <i>Applied Catalysis B: Environmental</i> , 2002 , 36, 161-169	21.8	131
469	A Facile Surface Passivation of Hematite Photoanodes with TiO ₂ Overlayers for Efficient Solar Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 24053-62	9.5	130

468	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	3.8	130
467	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	3.4	118
466	Facile fabrication of highly efficient modified ZnO photocatalyst with enhanced photocatalytic, antibacterial and anticancer activity. <i>RSC Advances</i> , 2016 , 6, 78335-78350	3.7	116
465	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	3.7	110
464	A fine route to tune the photocatalytic activity of TiO ₂ . <i>Applied Catalysis B: Environmental</i> , 2006 , 63, 31-40	4.8	109
463	Environmental photochemistry: Is iron oxide (hematite) an active photocatalyst? A comparative study: Fe ₂ O ₃ , ZnO, TiO ₂ . <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1989 , 48, 161-169	4.7	109
462	Photocatalytic conversion of biomass into valuable products: a meaningful approach?. <i>Green Chemistry</i> , 2018 , 20, 1169-1192	10	108
461	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	5.3	108
460	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	12.8	107
459	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	3.8	107
458	Bi(2) WO(6) inverse opals: facile fabrication and efficient visible-light-driven photocatalytic and photoelectrochemical water-splitting activity. <i>Small</i> , 2011 , 7, 2714-20	11	107
457	Photonic efficiency and mechanism of photocatalytic molecular hydrogen production over platinized titanium dioxide from aqueous methanol solutions. <i>Catalysis Today</i> , 2011 , 161, 196-201	5.3	104
456	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		104
455	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	21.8	103
454	Photocatalytic degradation of organic compounds: accelerating the process efficiency. <i>Water Science and Technology</i> , 1997 , 35, 79-86	2.2	103
453	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		102
452	Light-induced degradation of perfluorocarboxylic acids in the presence of titanium dioxide. <i>Chemosphere</i> , 2007 , 67, 785-92	8.4	101
451	Formation of Nitroaromatic Compounds in Advanced Oxidation Processes: Photolysis versus Photocatalysis. <i>Environmental Science & Technology</i> , 1999 , 33, 294-300	10.3	101

450	Preparation and characterization of transparent hydrophilic photocatalytic TiO ₂ /SiO ₂ thin films on polycarbonate. <i>Langmuir</i> , 2013 , 29, 3730-9	4	100
449	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	21.8	98
448	The role of electron transfer in photocatalysis: Fact and fictions. <i>Applied Catalysis B: Environmental</i> , 2012 , 128, 91-104	21.8	96
447	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	6.7	96
446	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, 3232-47	3.6	94
445	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, 1257-69	9.5	93
444	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	7.9	93
443	Efficient photocatalysis of the irreversible one-electron and two-electron reduction of halothane on platinized colloidal titanium dioxide in aqueous suspension. <i>The Journal of Physical Chemistry</i> , 1987 , 91, 3782-3788		93
442	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	8.3	92
441	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	3.8	92
440	One-step synthesis of mesoporous platinum/titania nanocomposites as photocatalyst with enhanced photocatalytic activity for methanol oxidation. <i>Green Chemistry</i> , 2011 , 13, 428	10	92
439	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	2.3	92
438	Titanium dioxide mediated photocatalytic degradation of 1,2-diethyl phthalate. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2001 , 143, 213-219	4.7	89
437	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	2	89
436	Addition of oxygen to organic sulfur radicals. <i>The Journal of Physical Chemistry</i> , 1978 , 82, 2777-2780		89
435	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	21.8	88
434	Self-cleaning properties, mechanical stability, and adhesion strength of transparent photocatalytic TiO ₂ (2)-ZnO coatings on polycarbonate. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 2270-8	9.5	88
433	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	3.8	88

432	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	3.8	88
431	Long-term investigation of the photocatalytic hydrogen production on platinized TiO ₂ : an isotopic study. <i>Energy and Environmental Science</i> , 2014 , 7, 1420	35.4	87
430	Large scale studies in solar catalytic wastewater treatment. <i>Catalysis Today</i> , 1999 , 54, 267-282	5.3	87
429	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	21.8	87
428	Photocatalytic degradation of naphthalene and anthracene: GC-MS analysis of the degradation pathway. <i>Research on Chemical Intermediates</i> , 1997 , 23, 247-274	2.8	85
427	Antenna mechanism and deaggregation concept: novel mechanistic principles for photocatalysis. <i>Comptes Rendus Chimie</i> , 2006 , 9, 761-773	2.7	85
426	Layer-by-layer TiO ₂ /WO ₃ thin films as efficient photocatalytic self-cleaning surfaces. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 16859-66	9.5	83
425	Mesostructure Au/TiO ₂ nanocomposites for highly efficient catalytic reduction of p-nitrophenol. <i>Journal of Molecular Catalysis A</i> , 2012 , 358, 145-151		80
424	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, 2139-47	7.8	80
423	Fundamental problems of water splitting at cadmium sulfide. <i>Chemical Physics Letters</i> , 1986 , 127, 419-423	5	80
422	Inverse Opal Photonic Crystals as a Strategy to Improve Photocatalysis: Underexplored Questions. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 3903-10	6.4	78
421	Enhanced photocatalytic production of molecular hydrogen on TiO ₂ modified with Pt-polypyrrole nanocomposites. <i>Photochemical and Photobiological Sciences</i> , 2009 , 8, 683-90	4.2	78
420	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	5	78
419	Quantum yields of hydroxyl radicals in illuminated TiO ₂ nanocrystallite layers. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002 , 148, 387-391	4.7	76
418	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		76
417	Versatile Aerogel Fabrication by Freezing and Subsequent Freeze-Drying of Colloidal Nanoparticle Solutions. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 1200-3	16.4	76
416	Mesoporous TiO ₂ nanostructures: a route to minimize Pt loading on titania photocatalysts for hydrogen production. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 20155-61	3.6	75
415	FT-IRATR as a tool to probe photocatalytic interfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005 , 265, 73-80	5.1	75

414	Hydroxyapatite/titanium dioxide nanocomposites for controlled photocatalytic NO oxidation. <i>Applied Catalysis B: Environmental</i> , 2011 , 106, 398-404	21.8	74
413	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	21.8	74
412	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	16.4	74
411	Photoelectrochemical and theoretical investigations of spinel type ferrites (M _x Fe _{3-x} O ₄) for water splitting: a mini-review. <i>Journal of Photonics for Energy</i> , 2016 , 7, 012009	1.2	72
410	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	21.8	72
409	TiO ₂ Thin Film Electrodes: Correlation between Photocatalytic Activity and Electrochemical Properties. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 19097-19101	3.8	71
408	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	3.8	70
407	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	6.8	70
406	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	3.9	70
405	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, 104001	5.7	69
404	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	2.8	69
403	Influence of the Dopant Concentration on the Photocatalytic Activity: Al-Doped TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2015 , 119, 24695-24703	3.8	68
402	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	14.7	68
401	Novel (and better?) titania-based photocatalysts: Brookite nanorods and mesoporous structures. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2010 , 216, 183-193	4.7	68
400	Toxicity, phototoxicity and biocidal activity of nanoparticles employed in photocatalysis. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2016 , 29, 1-28	16.4	67
399	Synthesis and photocatalytic properties of nanocrystalline Au, Pd and Pt photodeposited onto mesoporous RuO ₂ -TiO ₂ nanocomposites. <i>Applied Catalysis A: General</i> , 2012 , 431-432, 62-68	5.1	66
398	Composite hydroxyapatite/TiO ₂ materials for photocatalytic oxidation of NO _x . <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2012 , 177, 1046-1052	3.1	65
397	Semiconductor-mediated Photocatalyzed degradation of a herbicide derivative, chlorotoluron, in aqueous suspensions. <i>Environmental Science & Technology</i> , 2006 , 40, 4765-70	10.3	65

396	Photocatalytic activity of hydrophobized mesoporous thin films of TiO ₂ . <i>Microporous and Mesoporous Materials</i> , 2005 , 84, 247-253	5.3	65
395	Photodeposition of precious metals onto mesoporous TiO ₂ nanocrystals with enhanced their photocatalytic activity for methanol oxidation. <i>Catalysis Today</i> , 2013 , 209, 2-7	5.3	64
394	Microscopic characterization of the photocatalytic oxidation of oxalic acid adsorbed onto TiO ₂ by FTIR-ATR. <i>Catalysis Today</i> , 2005 , 101, 237-244	5.3	63
393	Tuning the photocatalytic selectivity of TiO ₂ anatase nanoplates by altering the exposed crystal facets content. <i>Applied Catalysis B: Environmental</i> , 2013 , 142-143, 761-768	21.8	62
392	Heterogeneous photocatalysed reaction of three selected pesticide derivatives, protham, propachlor and tebuthiuron in aqueous suspensions of titanium dioxide. <i>Chemosphere</i> , 2005 , 61, 457-68	8.4	62
391	Iron-based photocatalytic and photoelectrocatalytic nano-structures: Facts, perspectives, and expectations. <i>Applied Catalysis B: Environmental</i> , 2019 , 244, 1065-1095	21.8	62
390	The nature of chlorine-inhibition of photocatalytic degradation of dichloroacetic acid in a TiO ₂ -based microreactor. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 14867-73	3.6	61
389	Nanoporous TiO ₂ spheres with tailored textural properties: Controllable synthesis, formation mechanism, and photochemical applications. <i>Progress in Materials Science</i> , 2020 , 109, 100620	42.2	61
388	Facile Synthesis of Highly Ordered Mesoporous and Well Crystalline TiO ₂ : Impact of Different Gas Atmosphere and Calcination Temperatures on Structural Properties. <i>Chemistry of Materials</i> , 2012 , 24, 1268-1275	9.6	60
387	Study of the efficiency of UV and visible-light photocatalytic oxidation of methanol on mesoporous RuO ₂ -TiO ₂ nanocomposites. <i>ChemPhysChem</i> , 2011 , 12, 982-91	3.2	60
386	Adsorption of oxalate on anatase (100) and rutile (110) surfaces in aqueous systems: experimental results vs. theoretical predictions. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 1794-808	3.6	60
385	The Insulated Solar Fenton Hybrid Process: Fundamental Investigations. <i>Helvetica Chimica Acta</i> , 2001 , 84, 3742-3759	2	60
384	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	4.7	59
383	Photocatalytic conversion of nitroaromatic compounds in the presence of TiO ₂ . <i>Catalysis Today</i> , 2009 , 144, 154-159	5.3	59
382	Metal-free porphyrin-sensitized mesoporous titania films for visible-light indoor air oxidation. <i>ChemSusChem</i> , 2010 , 3, 1057-62	8.3	59
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