Peter K J Robertson

List of Publications by Year
in descending order

106 papers	4,279 citations	117453 34 h-index	114278 63 g-index
108 all docs	108 docs citations	108 times ranked	4982 citing authors

#	Article	IF	Citations
1	The application of TiO2 photocatalysis for disinfection of water contaminated with pathogenic micro-organisms: a review. Research on Chemical Intermediates, 2007, 33, 359-375.	1.3	306
2	Overview of the current ISO tests for photocatalytic materials. Journal of Photochemistry and Photobiology A: Chemistry, 2012, 237, 7-23.	2.0	237
3	Photocatalytic reactors for environmental remediation: a review. Journal of Chemical Technology and Biotechnology, 2011, 86, 1002-1017.	1.6	235
4	A comparison of the effectiveness of TiO2 photocatalysis and UVA photolysis for the destruction of three pathogenic micro-organisms. Journal of Photochemistry and Photobiology A: Chemistry, 2005, 175, 51-56.	2.0	197
5	Hydrogen peroxide enhanced photocatalytic oxidation of microcystin-LR using titanium dioxide. Applied Catalysis B: Environmental, 2000, 25, 59-67.	10.8	183
6	Physico-chemical treatment methods for the removal of microcystins (cyanobacterial hepatotoxins) from potable waters. Chemical Society Reviews, 1999, 28, 217-224.	18.7	182
7	Removal of microorganisms and their chemical metabolites from water using semiconductor photocatalysis. Journal of Hazardous Materials, 2012, 211-212, 161-171.	6.5	170
8	Mechanistic Studies of the Photocatalytic Oxidation of Microcystin-LR:Â An Investigation of Byproducts of the Decomposition Process. Environmental Science & Technology, 2003, 37, 3214-3219.	4.6	138
9	Detoxification of Microcystins (Cyanobacterial Hepatotoxins) Using TiO2 Photocatalytic Oxidation. Environmental Science & Technology, 1999, 33, 771-775.	4.6	135
10	Processes influencing surface interaction and photocatalytic destruction of microcystins on titanium dioxide photocatalysts. Journal of Catalysis, 2003, 213, 109-113.	3.1	109
11	Semiconductor photocatalysis: an environmentally acceptable alternative production technique and effluent treatment process. Journal of Cleaner Production, 1996, 4, 203-212.	4.6	102
12	Simultaneous cellulose conversion and hydrogen production assisted by cellulose decomposition under UV-light photocatalysis. Chemical Communications, 2016, 52, 1673-1676.	2.2	98
13	Removal of phthalates from aqueous solution by semiconductor photocatalysis: A review. Journal of Hazardous Materials, 2021, 402, 123461.	6.5	95
14	Development of a biocidal treatment regime to inhibit biological growths on cultural heritage: BIODAM. Environmental Geology, 2008, 56, 631-641.	1.2	76
15	Comparative assessment of visible light and UV active photocatalysts by hydroxyl radical quantification. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 334, 13-19.	2.0	76
16	Cellulose II as bioethanol feedstock and its advantages over native cellulose. Renewable and Sustainable Energy Reviews, 2017, 77, 182-192.	8.2	72
17	Destruction of cyanobacterial toxins by semiconductor photocatalysis. Chemical Communications, 1997, , 393-394.	2.2	64
18	In situ ATR-FTIR study of H₂O and D₂O adsorption on TiO₂ under UV irradiation. Physical Chemistry Chemical Physics, 2015, 17, 22940-22946.	1.3	64

#	ARTICLE	IF	CITATIONS
19	Mechanisms of Simultaneous Hydrogen Production and Formaldehyde Oxidation in H₂O and D₂O over Platinized TiO₂. ACS Catalysis, 2017, 7, 4753-4758.	5.5	64
20	Factors affecting the photoelectrochemical fixation of carbon dioxide with semiconductor colloids. Journal of Photochemistry and Photobiology A: Chemistry, 1998, 118, 31-40.	2.0	62
21	The destruction of 2-methylisoborneol and geosmin using titanium dioxide photocatalysis. Applied Catalysis B: Environmental, 2003, 44, 9-13.	10.8	60
22	Mechanistic and toxicity studies of the photocatalytic oxidation of microcystin-LR. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 148, 349-354.	2.0	56
23	Variables to be considered when assessing the photocatalytic destruction of bacterial pathogens. Chemosphere, 2009, 74, 1374-1378.	4.2	52
24	Development of a slurry continuous flow reactor for photocatalytic treatment of industrial waste water. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 211, 42-46.	2.0	50
25	The photocatalytic decomposition of microcystin-LR using selected titanium dioxide materials. Chemosphere, 2009, 76, 549-553.	4.2	47
26	The alteration of the structural properties and photocatalytic activity of TiO2 following exposure to non-linear irradiation sources. Applied Catalysis B: Environmental, 2003, 44, 173-184.	10.8	46
27	The application of Raman and anti-stokes Raman spectroscopy for in situ monitoring of structural changes in laser irradiated titanium dioxide materials. Applied Surface Science, 2006, 252, 7948-7952.	3.1	46
28	Effect of controlled periodic-based illumination on the photonic efficiency of photocatalytic degradation of methyl orange. Journal of Catalysis, 2012, 290, 138-142.	3.1	44
29	Photocatalytic degradation of eleven microcystin variants and nodularin by TiO2 coated glass microspheres. Journal of Hazardous Materials, 2015, 300, 347-353.	6.5	42
30	The degradation of microcystin-LR using doped visible light absorbing photocatalysts. Chemosphere, 2010, 78, 1182-1185.	4.2	39
31	Exploring the photocatalytic hydrogen production potential of titania doped with alumina derived from foil waste. International Journal of Hydrogen Energy, 2020, 45, 34494-34502.	3.8	39
32	The Involvement of Phycocyanin Pigment in the Photodecomposition of the Cyanobacterial Toxin, Microcystin-LR. Journal of Porphyrins and Phthalocyanines, 1999, 03, 544-551.	0.4	38
33	Photoreduction of carbon dioxide on zinc sulfide to give four-carbon and two-carbon acids. Journal of the Chemical Society Chemical Communications, 1993, , 349.	2.0	37
34	Characterization of Novel Ag on TiO2 Films for Surface-Enhanced Raman Scattering. Applied Spectroscopy, 2004, 58, 922-928.	1.2	37
35	Modification and enhanced photocatalytic activity of TiO2 following exposure to non-linear irradiation sources. Journal of Photochemistry and Photobiology A: Chemistry, 1999, 122, 69-71.	2.0	33
36	The photocatalytic destruction of the cyanotoxin, nodularin using TiO2. Applied Catalysis B: Environmental, 2005, 60, 245-252.	10.8	33

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37	A continuous flow packed bed photocatalytic reactor for the destruction of 2-methylisoborneol and geosmin utilising pelletised TiO2. Chemical Engineering Journal, 2014, 235, 293-298.	6.6	33
38	The application of a novel fluidised photo reactor under UVâ€“Visible and natural solar irradiation in the photocatalytic generation of hydrogen. Chemical Engineering Journal, 2016, 286, 610-621.	6.6	33
39	Quantification of hydroxyl radicals in photocatalysis and acoustic cavitation: Utility of coumarin as a chemical probe. Chemical Engineering Journal, 2021, 420, 127560.	6.6	32
40	Photoelectrochemistry using quinone radical anions. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 2249.	1.7	30
41	Processes influencing the destruction of microcystin-LR by TiO2 photocatalysis. Journal of Photochemistry and Photobiology A: Chemistry, 1998, 116, 215-219.	2.0	29
42	Pathways of the photocatalytic reaction of acetate in H2O and D2O: A combined EPR and ATR-FTIR study. Journal of Catalysis, 2016, 344, 831-840.	3.1	29
43	Synthesis of Visible-Light-Activated Yellow Amorphous<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mtext>TiO</mml:mtext></mml:m International Journal of Photoenergy, 2008, 2008, 1-6.	1.4	27
44	Controlled periodic illumination in semiconductor photocatalysis. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 319-320, 96-106.	2.0	27
45	Novel Photocatalytic Reactor Development for Removal of Hydrocarbons from Water. International Journal of Photoenergy, 2008, 2008, 1-7.	1.4	26
46	Photocatalytic OH radical formation and quantification over TiO2 P25: Producing a robust and optimised screening method. Chinese Chemical Letters, 2018, 29, 773-777.	4.8	25
47	Photocatalytic removal of the cyanobacterium Microcystis aeruginosa PCC7813 and four microcystins by TiO2 coated porous glass beads with UV-LED irradiation. Science of the Total Environment, 2020, 745, 141154.	3.9	25
48	A study of the kinetic solvent isotope effect on the destruction of microcystin-LR and geosmin using TiO2 photocatalysis. Applied Catalysis B: Environmental, 2011, 108-109, 1-5.	10.8	24
49	The effect of pH on the photonic efficiency of the destruction of methyl orange under controlled periodic illumination with UV-LED sources. Chemical Engineering Journal, 2014, 246, 337-342.	6.6	24
50	An investigation of the role of pH in the rapid photocatalytic degradation of MCPA and its primary intermediate by low-power UV LED irradiation. Chemical Engineering Journal, 2019, 359, 112-118.	6.6	23
51	Photosensitized Destruction ofChlorella vulgarisby Methylene Blue or Nuclear Fast Red Combined with Hydrogen Peroxide under Visible Light Irradiation. Environmental Science & Technology, 2006, 40, 2421-2425.	4.6	22
52	Voltammetric in situ measurements of heavy metals in soil using a portable electrochemical instrument. Measurement: Journal of the International Measurement Confederation, 2007, 40, 960-967.	2.5	22
53	Photobactericidal effects of TiO2 thin films at low temperaturesâ€"A preliminary study. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 216, 290-294.	2.0	22
54	Effect of Ball-Milling Pretreatment of Cellulose on Its Photoreforming for H₂ Production. ACS Sustainable Chemistry and Engineering, 2022, 10, 4862-4871.	3.2	22

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55	Development of a doped titania immobilised thin film multi tubular photoreactor. Applied Catalysis B: Environmental, 2013, 130-131, 99-105.	10.8	21
56	Graphitic-C3N4 coated floating glass beads for photocatalytic destruction of synthetic and natural organic compounds in water under UV light. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 405, 112935.	2.0	21
57	Using cellulose polymorphs for enhanced hydrogen production from photocatalytic reforming. Sustainable Energy and Fuels, 2019, 3, 1971-1975.	2.5	20
58	Photo-dynamic biocidal action of methylene blue and hydrogen peroxide on the cyanobacterium Synechococcus leopoliensis under visible light irradiation. Journal of Photochemistry and Photobiology B: Biology, 2006, 83, 63-68.	1.7	19
59	Mathematical modelling of quantum yield enhancements of methyl orange photooxidation in aqueous TiO2 suspensions under controlled periodic UV LED illumination. Applied Catalysis B: Environmental, 2014, 156-157, 398-403.	10.8	19
60	A one-pot method for building colloidal nanoparticles into bulk dry powders with nanoscale magnetic, plasmonic and catalytic functionalities. Applied Materials Today, 2019, 15, 398-404.	2.3	18
61	UV LED Sources for Heterogeneous Photocatalysis. Handbook of Environmental Chemistry, 2014, , 159-179.	0.2	17
62	Removal of microcystins from a waste stabilisation lagoon: Evaluation of a packed-bed continuous flow TiO2 reactor. Chemosphere, 2020, 245, 125575.	4.2	16
63	Photocatalytic Reforming of Biomass: What Role Will the Technology Play in Future Energy Systems. Topics in Current Chemistry, 2022, 380, .	3.0	16
64	Remediation of oily wastewater from an interceptor tank using a novel photocatalytic drum reactor. Desalination and Water Treatment, 2011, 26, 87-91.	1.0	15
65	Photocatalytic reforming of glycerol to <scp>H₂</scp> in a thin film <scp>Ptâ€TiO₂</scp> recirculating photoreactor. Journal of Chemical Technology and Biotechnology, 2020, 95, 2619-2627.	1.6	15
66	Enhanced photocatalytic degradation of 2-methyl-4-chlorophenoxyacetic acid (MCPA) by the addition of H2O2. Chemosphere, 2021, 275, 130082.	4.2	15
67	A new generation of biocides for control of crustacea in fish farms. Journal of Photochemistry and Photobiology B: Biology, 2009, 95, 58-63.	1.7	14
68	A photocatalytic impeller reactor for gas phase heterogeneous photocatalysis. Journal of Environmental Chemical Engineering, 2017, 5, 3942-3948.	3.3	14
69	Photocatalytic Detoxification of Water and Air. , 0, , 367-423.		13
70	Ionic liquids tethered to a preorganised 1,2-diamide motif for extraction of lanthanides. Green Chemistry, 2019, 21, 2583-2588.	4.6	12
71	Kinetic modelling of the photocatalytic degradation of Diisobutyl phthalate and coupling with acoustic cavitation. Chemical Engineering Journal, 2022, 444, 136494.	6.6	10
72	Onâ€Site Monitoring and Cartographical Mapping of Heavy Metals. Instrumentation Science and Technology, 2006, 34, 489-499.	0.9	9

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73	â€˜All in oneâ€™ photo-reactor pod containing TiO₂ coated glass beads and LEDs for continuous photocatalytic destruction of cyanotoxins in water. Environmental Science: Water Research and Technology, 2020, 6, 945-950.	1.2	9
74	Comparison of UV-A photolytic and UV/TiO2 photocatalytic effects on Microcystis aeruginosa PCC7813 and four microcystin analogues: A pilot scale study. Journal of Environmental Management, 2021, 298, 113519.	3.8	9
75	Mixing regime simulation and cellulose particle tracing in a stacked frame photocatalytic reactor. Chemical Engineering Journal, 2017, 313, 301-308.	6.6	8
76	Development and Optimization of an Immobilized Photocatalytic System within a Stacked Frame Photoreactor (SFPR) Using Light Distribution and Fluid Mixing Simulation Coupled with Experimental Validation. Industrial & Engineering Chemistry Research, 2019, 58, 2727-2740.	1.8	8
77	The use of titanium dioxide nanotubes as photoanodes for chloride oxidation. Materials Science in Semiconductor Processing, 2020, 109, 104930.	1.9	8
78	Isotope Effects in Photocatalysis: An Underexplored Issue. ACS Omega, 2021, 6, 11113-11121.	1.6	8
79	Exploring lignin valorisation: the application of photocatalysis for the degradation of the Î²-5 linkage. JPhys Energy, 2021, 3, 035002.	2.3	8
80	Intelligent potentiostat for identification of heavy metals in situ. Review of Scientific Instruments, 2006, 77, 014103.	0.6	7
81	From Ideal Reactor Concepts to Reality: The Novel Drum Reactor for Photocatalytic Wastewater Treatment. International Journal of Chemical Reactor Engineering, 2013, 11, 621-632.	0.6	7
82	Influence of bacterial, environmental and physical factors in design of photocatalytic reactors for water disinfection. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 366, 136-141.	2.0	7
83	Photoelectrochemistry with quinone radical anionsâ€”photoassisted reduction of halobenzenes and carbonyl compounds. Journal of the Chemical Society Perkin Transactions II, 1994, , 1829-1832.	0.9	6
84	Photoelectrochemistry with quinone radical anions: kinetics of homogeneous redox catalysis. Analyst, The, 1994, 119, 827.	1.7	6
85	A Multi-capability Sensor for Hydrocarbons, Synthetic-based Fluids and Heavy Metals: Applications for Environmental Monitoring During Removal of Drill Cuttings Piles. Underwater Technology, 2002, 25, 69-76.	0.3	6
86	On-line monitoring of laser modification of titanium dioxide using optical surface second harmonic. Applied Surface Science, 2004, 222, 33-42.	3.1	5
87	Effect of Polyethylenimine, a Cell Permeabilizer, on the Photosensitized Destruction of Algae by Methylene Blue and Nuclear Fast Red. Photochemistry and Photobiology, 2006, 82, 1662-1667.	1.3	5
88	The influence of microbial factors on the susceptibility of bacteria to photocatalytic destruction. Journal of Photochemistry and Photobiology A: Chemistry, 2015, 311, 53-58.	2.0	5
89	Halogen-bond mediated efficient storage of extremely volatile perfluoroiodides in ionic liquids. Chemical Communications, 2019, 55, 9088-9091.	2.2	5
90	Observation of stimulated emission from Rhodamine 6G-polymer aggregate adsorbed at foam interfaces. JPhys Energy, 2019, 1, 015007.	2.3	5

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91	Antisolvent Crystallization using a Fluidic Oscillator: Modeling and Validation. Industrial & Engineering Chemistry Research, 2021, 60, 12752-12766.	1.8	5
92	Title is missing!. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 148, 1-3.	2.0	4
93	Photocatalytic Destruction of Geosmin Using Novel Pelleted Titanium Dioxide. Journal of Advanced Oxidation Technologies, 2008, 11, .	0.5	4
94	In Situ ATR-FTIR Investigation of the Effects of H₂O and D₂O Adsorption on the TiO₂Surface. ECS Transactions, 2017, 75, 101-113.	0.3	4
95	The use of a novel compact fluorosensor for in situ monitoring of the photocatalytic destruction of methylene blue dye effluents. Sensors and Actuators B: Chemical, 2012, 168, 118-122.	4.0	3
96	Photocatalytic radical species: An overview of how they are generated, detected, and measured. , 2021, , 85-118.		3
97	Multi-bubble sonoluminescence: laboratory curiosity, or real world application?. , 2008, , .		2
98	Environmental Forensic Investigations: The Potential Use of a Novel Heavy Metal Sensor and Novel Taggants. , 2009, , 477-490.		2
99	The Application of Semiconductor Photocatalysis for the Removal of Cyanotoxins from Water and Design Concepts for Solar Photocatalytic Reactors for Large Scale Water Treatment. , 2013, , 395-415.		2
100	<title>Application of laser radiation for the treatment of waste materials using a photocatalyst</title>. , 1998, , .		1
101	Acidity compensation of electrochemical measurements for on-site monitoring of heavy metals. Transactions of the Institute of Measurement and Control, 2006, 28, 323-333.	1.1	1
102	Energy efficient operation of photocatalytic reactors based on UV LEDs for pollution remediation in water. , 2017, , .		1
103	Cellulose Photocatalysis for Renewable Energy Production. Environmental Chemistry for A Sustainable World, 2021, , 1-34.	0.3	1
104	Effect of Polyethylenimine, a Cell Permeabilizer, on the Photosensitized Destruction of Algae by Methylene Blue and Nuclear Fast Red. Photochemistry and Photobiology, 2006, 82, 1662.	1.3	1
105	Preface to the Special Issue on Selected Papers from the Second International Conference on Semiconductor Photochemistry SP-2. International Journal of Photoenergy, 2008, 2008, 1-2.	1.4	0
106	Application of ultrasound for sonodynamic photocatalysis. , 2011, , .		0