

Rajesh J Tayade

List of Publications by Year in descending order

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59
papers

4,371
citations

172386

29
h-index

175177

52
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59
all docs

59
docs citations

59
times ranked

5662
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances based on the synergetic effect of adsorption for removal of dyes from waste water using photocatalytic process. <i>Journal of Environmental Sciences</i> , 2018, 65, 201-222.	3.2	541
2	Study on UV-LED/TiO ₂ process for degradation of Rhodamine B dye. <i>Chemical Engineering Journal</i> , 2011, 169, 126-134.	6.6	453
3	Photocatalytic degradation of dyes and organic contaminants in water using nanocrystalline anatase and rutile TiO ₂ . <i>Science and Technology of Advanced Materials</i> , 2007, 8, 455-462.	2.8	264
4	Photocatalytic Degradation of Methylene Blue Dye Using Ultraviolet Light Emitting Diodes. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 10262-10267.	1.8	248
5	New Generation Energy-Efficient Light Source for Photocatalysis: LEDs for Environmental Applications. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 2073-2084.	1.8	215
6	Visible light driven redox-mediator-free dual semiconductor photocatalytic systems for pollutant degradation and the ambiguity in applying Z-scheme concept. <i>Applied Catalysis B: Environmental</i> , 2018, 227, 296-311.	10.8	183
7	Photocatalytic reactor based on UV-LED/TiO ₂ coated quartz tube for degradation of dyes. <i>Chemical Engineering Journal</i> , 2011, 178, 40-49.	6.6	172
8	Transition Metal Ion Impregnated Mesoporous TiO ₂ for Photocatalytic Degradation of Organic Contaminants in Water. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 5231-5238.	1.8	169
9	Photocatalytic degradation of pharmaceutical and pesticide compounds (PPCs) using doped TiO ₂ nanomaterials: A review. <i>Water-Energy Nexus</i> , 2020, 3, 46-61.	1.7	161
10	Photocatalytic Degradation of Aqueous Nitrobenzene by Nanocrystalline TiO ₂ . <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 922-927.	1.8	151
11	Energy Efficient UV-LED Source and TiO ₂ Nanotube Array-Based Reactor for Photocatalytic Application. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 7753-7762.	1.8	144
12	Enhanced photocatalytic activity of bismuth-doped TiO ₂ nanotubes under direct sunlight irradiation for degradation of Rhodamine B dye. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	0.8	135
13	MIL-53(Al): An Efficient Adsorbent for the Removal of Nitrobenzene from Aqueous Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 10516-10524.	1.8	125
14	Preferential adsorption behavior of methylene blue dye onto surface hydroxyl group enriched TiO ₂ nanotube and its photocatalytic regeneration. <i>Journal of Colloid and Interface Science</i> , 2014, 433, 104-114.	5.0	106
15	Recent developments in photocatalytic dye degradation upon irradiation with energy-efficient light emitting diodes. <i>Chinese Journal of Catalysis</i> , 2014, 35, 1781-1792.	6.9	97
16	Photocatalytic efficiency of bismuth oxyhalide (Br, Cl and I) nanoplates for RhB dye degradation under LED irradiation. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 34, 146-156.	2.9	94
17	Synthesis of multiwall carbon nanotubes/TiO ₂ nanotube composites with enhanced photocatalytic decomposition efficiency. <i>Catalysis Today</i> , 2017, 282, 13-23.	2.2	92
18	Enhanced Photocatalytic Activity of TiO ₂ -Coated NaY and HY Zeolites for the Degradation of Methylene Blue in Water. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 369-376.	1.8	82

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19	Effect of Anions on the Photocatalytic Activity of Fe(III) Salts Impregnated TiO ₂ . Industrial & Engineering Chemistry Research, 2007, 46, 6196-6203.	1.8	75
20	Recovered spinel MnCo ₂ O ₄ from spent lithium-ion batteries for enhanced electrocatalytic oxygen evolution in alkaline medium. Dalton Transactions, 2017, 46, 14382-14392.	1.6	72
21	Enhanced Photocatalytic Degradation of Aqueous Nitrobenzene Using Graphitic Carbon@TiO ₂ Composites. Industrial & Engineering Chemistry Research, 2014, 53, 3455-3461.	1.8	55
22	Synthesis of homogeneous sphere-like Bi ₂ WO ₆ nanostructure by silica protected calcination with high visible-light-driven photocatalytic activity under direct sunlight. CrystEngComm, 2015, 17, 1037-1049.	1.3	52
23	TiO ₂ -Coated Cenospheres as Catalysts for Photocatalytic Degradation of Methylene Blue, <i>p</i> -Nitroaniline, <i>n</i> -Decane, and <i>n</i> -Tridecane under Solar Irradiation. Industrial & Engineering Chemistry Research, 2010, 49, 8908-8919.	1.8	44
24	Study on identification of leather industry wastewater constituents and its photocatalytic treatment. International Journal of Environmental Science and Technology, 2013, 10, 855-864.	1.8	41
25	Metal Doped Titanium Dioxide: Synthesis and Effect of Metal Ions on Physico-Chemical and Photocatalytic Properties. Materials Science Forum, 0, 734, 364-378.	0.3	40
26	Photocatalytic Degradation of Nitrobenzene in an Aqueous System by Transition-Metal-Exchanged ETS-10 Zeolites. Industrial & Engineering Chemistry Research, 2010, 49, 3961-3966.	1.8	38
27	Photocatalytic removal of organic contaminants from water exploiting tuned bandgap photocatalysts. Desalination, 2011, 275, 160-165.	4.0	36
28	Facile photocatalytic reactor development using nano-TiO ₂ immobilized mosquito net and energy efficient UVLED for industrial dyes effluent treatment. Journal of Environmental Chemical Engineering, 2016, 4, 319-327.	3.3	36
29	Synergetic effect of adsorption on degradation of malachite green dye under blue LED irradiation using spiral-shaped photocatalytic reactor. Journal of Chemical Technology and Biotechnology, 2015, 90, 2280-2289.	1.6	35
30	Photocatalytic Degradation of 3,3'-Dimethylbiphenyl-4,4'-diamine (<i>o</i> -Tolidine) over Nanocrystalline TiO ₂ Synthesized by Sol-gel, Solution Combustion, and Hydrothermal Methods. Industrial & Engineering Chemistry Research, 2008, 47, 5847-5855.	1.8	33
31	Palmyra tuber peel derived activated carbon and anatase TiO ₂ nanotube based nanocomposites with enhanced photocatalytic performance in rhodamine 6G dye degradation. Chemical Engineering Research and Design, 2016, 104, 346-357.	2.7	33
32	Enhanced Photocatalytic Activity by Silver Metal Ion Exchanged NaY Zeolite Photocatalysts for the Degradation of Organic Contaminants and Dyes in Aqueous Medium. Industrial & Engineering Chemistry Research, 2008, 47, 7545-7551.	1.8	32
33	Nitrogen Doped Titanium Dioxide (N-TiO ₂): Synopsis of Synthesis Methodologies, Doping Mechanisms, Property Evaluation and Visible Light Photocatalytic Applications. Photochem, 2021, 1, 371-410.	1.3	29
34	Synthesis and Characterization of Titanium Dioxide Nanotubes for Photocatalytic Degradation of Aqueous Nitrobenzene in the Presence of Sunlight. Materials Science Forum, 0, 657, 62-74.	0.3	26
35	Iron-functionalized titanium dioxide on flexible glass fibers for photocatalysis of benzene, toluene, ethylbenzene, and <i>o</i> -xylene (BTEX) under visible- or ultraviolet-light irradiation. Journal of the Air and Waste Management Association, 2015, 65, 365-373.	0.9	26
36	Photocatalytic Degradation of Aqueous Nitrobenzene Solution Using Nanocrystalline Mg-Mn Ferrites. Materials Science Forum, 0, 764, 116-129.	0.3	25

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37	Direct sunlight driven photocatalytic activity of GeO ₂ / monoclinic -BiVO ₄ nanoplate composites. <i>Solar Energy</i> , 2017, 148, 87-97.	2.9	22
38	Facile synthesis of TiO ₂ /ZnFe ₂ O ₄ nanocomposite by sol-gel auto combustion method for superior visible light photocatalytic efficiency. <i>Korean Journal of Chemical Engineering</i> , 2016, 33, 1788-1798.	1.2	21
39	Ultrasound-assisted adsorption of reactive blue 21 dye on TiO ₂ in the presence of some rare earths (La, Ce, Pr & Gd). <i>Canadian Journal of Chemical Engineering</i> , 2014, 92, 41-51.	0.9	19
40	Effective removal of organic pollutants using GeO ₂ /TiO ₂ nanoparticle composites under direct sunlight. <i>Materials Chemistry Frontiers</i> , 2018, 2, 741-751.	3.2	17
41	TiO ₂ /graphene oxide nanocomposite with enhanced photocatalytic capacity for degradation of 2,4-dichlorophenoxyacetic acid herbicide. <i>Water-Energy Nexus</i> , 2021, 4, 103-112.	1.7	14
42	Photocatalytic performance and interaction mechanism of reverse micelle synthesized Cu-TiO ₂ nanomaterials towards levofloxacin under visible LED light. <i>Photochemical and Photobiological Sciences</i> , 2022, 21, 77-89.	1.6	13
43	Direct dual CaIn ₂ S ₄ /Bi ₂ WO ₆ semiconductor nanocomposites with efficient inter-cross-sectional charge carrier transfer for enhanced visible light photocatalysis. <i>Journal of Nanoparticle Research</i> , 2021, 23, 1.	0.8	12
44	Photocatalytic H ₂ Production Using Semiconductor Nanomaterials via Water Splitting – An Overview. <i>Advanced Materials Research</i> , 0, 1116, 130-156.	0.3	11
45	Enhanced photocatalytic degradation of nitrobenzene using MWCNT/β ² -ZnMoO ₄ composites under UV light emitting diodes (LEDs). <i>Materials Today Chemistry</i> , 2020, 17, 100331.	1.7	11
46	Biomass-Derived Humin-like Furanic Polymers as an Effective UV-Shielding Agent for Optically Transparent Thin-Film Composites. <i>ACS Applied Polymer Materials</i> , 2021, 3, 1932-1942.	2.0	10
47	Correlation of Surface Properties and Photocatalytic Activity of Nanocrystalline TiO ₂ on the Synthesis Route. <i>Nano Hybrids</i> , 0, 1, 57-80.	0.3	9
48	Direct Blue Dye Degradation Using Titanium Nanostructures Under Energy-Efficient UV-LED Irradiation. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 83-90.	1.2	9
49	Enhanced direct sunlight photocatalytic oxidation of methanol using nanocrystalline TiO ₂ calcined at different temperature. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	0.8	8
50	Synthesis Route Impact on BiVO ₄ Nanoparticles and their Visible Light Photocatalytic Activity Under Green LED Irradiation. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 5100-5115.	0.9	8
51	Low temperature energy- efficient synthesis methods for bismuth-based nanostructured photocatalysts for environmental remediation application: A review. <i>Chemosphere</i> , 2022, 304, 135300.	4.2	8
52	Synthesis and characterization of ferrite-semiconductor nano composite for photocatalytic degradation of aqueous nitrobenzene solution. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	6
53	Rutile phase dominant TiO ₂ formed by thermal treatment and its high photocatalytic activity under narrow spectrum ultraviolet light emitting diodes. <i>Materials Research Express</i> , 2019, 6, 015049.	0.8	5
54	Photocatalytic Degradation of Indigo Carmine Dye Using Hydrothermally Synthesized Anatase TiO ₂ Nanotubes under Ultraviolet Light Emitting Diode Irradiation. <i>Materials Science Forum</i> , 2016, 855, 45-57.	0.3	4

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55	Synthesis and Characterization of Tantalum Based Photocatalysts and Application for Methylene Blue Degradation . Materials Science Forum, 2016, 855, 147-155.	0.3	2
56	Photocatalysis: Present, past and future. Materials Research Foundations, 2017, , 1-63.	0.2	1
57	Modeling and Optimization of Photocatalytic Degradation Process of 4-Chlorophenol using Response Surface Methodology (RSM) and Artificial Neural Network (ANN). Materials Research Foundations, 2018, , 405-432.	0.2	1
58	Enhanced Photocatalytic Activity of TiO ₂ Supported on Different Carbon Allotropes for Degradation of Pharmaceutical Organic Compounds. Materials Research Foundations, 2018, , 139-159.	0.2	0
59	Enhanced Hydrogen Storage Properties of Hydrothermally Synthesized TiO ₂ Nanotube-Multiwall Carbon Nanotube Nanocomposite. Materials Research Foundations, 2018, , 258-275.	0.2	0