Vaidyanathan Ravi Subramanian

List of Publications by Citations

58 papers	6,783 citations	29 h-index	62 g-index
62 ext. papers	7,179 ext. citations	7 avg, IF	5.96 L-index

#	Paper	IF	Citations
58	Catalysis with TiO2/gold nanocomposites. Effect of metal particle size on the Fermi level equilibration. *Journal of the American Chemical Society*, **2004**, 126, 4943-50	16.4	1762
57	Quantum dot solar cells. harvesting light energy with CdSe nanocrystals molecularly linked to mesoscopic TiO2 films. *Journal of the American Chemical Society*, **2006**, 128, 2385-93	16.4	1621
56	Semiconductor Metal Composite Nanostructures. To What Extent Do Metal Nanoparticles Improve the Photocatalytic Activity of TiO2 Films?. *Journal of Physical Chemistry B*, **2001**, 105, 11439-11446	3.4	824
55	Green Emission to Probe Photoinduced Charging Events in ZnO Au Nanoparticles. Charge Distribution and Fermi-Level Equilibration *Journal of Physical Chemistry B*, **2003**, 107, 7479-7485	3.4	440
54	Influence of Metal/Metal Ion Concentration on the Photocatalytic Activity of TiO2 Au Composite Nanoparticles. *Langmuir*, **2003**, 19, 469-474	4	304
53	Improved photocatalytic degradation of textile dye using titanium dioxide nanotubes formed over titanium wires. *Environmental Science & Technology*, **2009**, 43, 3260-5	10.3	165
52	Investigation of Physicochemical Parameters That Influence Photocatalytic Degradation of Methyl Orange over TiO2 Nanotubes. *Industrial & Engineering Chemistry Research*, **2009**, 48, 10268-10276	3.9	134
51	Electrochemically assisted photocatalytic degradation of methyl orange using anodized titanium dioxide nanotubes. *Applied Catalysis B: Environmental*, **2008**, 84, 372-378	21.8	101
50	Band-Engineered Bismuth Titanate Pyrochlores for Visible Light Photocatalysis. *Journal of Physical Chemistry C*, **2010**, 114, 10598-10605	3.8	100
49	Synthesis and UV Visible-Light Photoactivity of Noble-Metal SrTiO3 Composites. *Industrial & Engineering Chemistry Research*, **2006**, 45, 2187-2193	3.9	97
48	Nature-Inspired Tree-Like TiO2 Architecture: A 3D Platform for the Assembly of CdS and Reduced Graphene Oxide for Photoelectrochemical Processes. *Journal of Physical Chemistry C*, **2015**, 119, 7543-7553	3.8	63
47	Amino-functionalized and acid treated multi-walled carbon nanotubes as supports for electrochemical oxidation of formic acid. *Applied Catalysis B: Environmental*, **2011**, 103, 266-274	21.8	62
46	Mass-Transfer and Kinetic Studies during the Photocatalytic Degradation of an Azo Dye on Optically Transparent Electrode Thin Film. *Industrial & Engineering Chemistry Research*, **2003**, 42, 2131-2138	3.9	62
45	Encapsulating Bi2Ti2O7 (BTO) with reduced graphene oxide (RGO): an effective strategy to enhance photocatalytic and photoelectrocatalytic activity of BTO. *ACS Applied Materials & Interfaces*, **2014**, 6, 18597-608	9.5	60
44	1D CdS/PbS heterostructured nanowire synthesis using cation exchange. *Chemical Communications*, **2012**, 48, 2415-7	5.8	52
43	CdSe Nanocrystal Assemblies on Anodized TiO2 Nanotubes: Optical, Surface, and Photoelectrochemical Properties. *Journal of Physical Chemistry C*, **2012**, 116, 15175-15184	3.8	52
42	Effects of acid accelerators on hydrogen generation from solid sodium borohydride using small scale devices. *Journal of Power Sources*, **2009**, 187, 216-223	8.9	48

41	Robust synthesis of bismuth titanate pyrochlore nanorods and their photocatalytic applications. *Chemical Communications*, **2009**, 5109-11	5.8	47
40	Enhancing the visible light absorbance of Bi2Ti2O7 through Fe-substitution and its effects on photocatalytic hydrogen evolution. *Applied Catalysis B: Environmental*, **2014**, 144, 261-268	21.8	46
39	Photoinduced transformations at semiconductor/metal interfaces: X-ray absorption studies of titania/gold films. *Journal of Applied Physics*, **2003**, 93, 2575-2582	2.5	46
38	Heterostructural Composites of TiO2 MeshTiO2 Nanoparticles Photosensitized with CdS: A New Flexible Photoanode for Solar Cells. *Journal of Physical Chemistry C*, **2011**, 115, 8376-8385	3.8	45
37	Inactivation of Human Coronavirus by Titania Nanoparticle Coatings and UVC Radiation: Throwing Light on SARS-CoV-2. *Viruses*, **2020**, 13,	6.2	45
36	Sulfated Fe2O3TiO2 synthesized from ilmenite ore: A visible light active photocatalyst. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2010**, 367, 140-147	5.1	44
35	TiO2 nanotube (T_NT) surface treatment revisited: Implications of ZnO, TiCl4, and H2O2 treatment on the photoelectrochemical properties of T_NT and T_NT-CdSe. *Nanoscale*, **2013**, 5, 269-74	7.7	40
34	Photoassisted enhancement of the electrocatalytic oxidation of formic acid on platinized TiO nanotubes. *ACS Applied Materials & Interfaces*, **2014**, 6, 5585-94	9.5	37
33	CO2 Photoreduction in the Liquid Phase over Pd-Supported on TiO2 Nanotube and Bismuth Titanate Photocatalysts. *Electrochemical and Solid-State Letters*, **2011**, 14, F5		35
32	Hydrothermal Synthesis of Bi12TiO20 Nanostrucutures Using Anodized TiO2 Nanotubes and Its Application in Photovoltaics. *Journal of Physical Chemistry Letters*, **2010**, 1, 1631-1636	6.4	31
31	Mn-modified Bi2Ti2O7 photocatalysts: bandgap engineered multifunctional photocatalysts for hydrogen generation. *Physical Chemistry Chemical Physics*, **2014**, 16, 12719-27	3.6	29
30	Boosting of the Performance of Perovskite Solar Cells through Systematic Introduction of Reduced Graphene Oxide in TiO2Layers. *Chemistry Letters*, **2015**, 44, 1410-1412	1.7	29
29	Heterogeneous photocatalytic degradation of recalcitrant pollutants over CdSTiO2 nanotubes: Boosting effect of TiO2 nanoparticles at nanotubeCdS interface. *Applied Catalysis A: General*, **2012**, 441-442, 1-9	5.1	29
28	TiO2 nanotubes and its composites: Photocatalytic and other photo-driven applications. *Journal of Materials Research*, **2013**, 28, 280-293	2.5	27
27	Photodegradation of methyl orange and 2,3-butanedione on titanium-dioxide nanotube arrays efficiently synthesized on titanium coils. *Applied Catalysis B: Environmental*, **2011**, 110, 6-13	21.8	27
26	One-Pot Fabrication of High Coverage PbS Quantum Dot Nanocrystal-Sensitized Titania Nanotubes for Photoelectrochemical Processes. *Journal of Physical Chemistry C*, **2018**, 122, 13659-13668	3.8	22
25	Photocatalytic NOx removal using tantalum oxide nanoparticles: A benign pathway. *Applied Catalysis B: Environmental*, **2021**, 291, 119974	21.8	20
24	Photocatalytic activity of Fe-modified bismuth titanate pyrochlores: Insights into its stability, photoelectrochemical, and optical responses. *Applied Catalysis B: Environmental*, **2016**, 180, 442-450	21.8	19

23	Photoelectrochemical Infiltration of a Conducting Polymer (PEDOT) into Metal-Chalcogenide Decorated TiO2 Nanotube Arrays. *Electrochimica Acta*, **2015**, 151, 467-476	6.7	18
22	Sol□Gel Synthesis of Thick Ta2O5 Films. *Chemistry of Materials*, **2007**, 19, 3155-3161	9.6	18
21	Boosting Photocatalytic Activity Using Reduced Graphene Oxide (RGO)/Semiconductor Nanocomposites: Issues and Future Scope. *ACS Omega*, **2021**, 6, 8734-8743	3.9	18
20	Effects of Carbon Allotrope Interface on the Photoactivity of Rutile One-Dimensional (1D) TiO2 Coated with Anatase TiO2 and Sensitized with CdS Nanocrystals. *ACS Applied Materials & Interfaces*, **2016**, 8, 13400-9	9.5	18
19	Synthesis of High-Temperature Titania□Alumina Supports□*Industrial & Engineering Chemistry Research*, **2006**, 45, 3815-3820	3.9	17
18	Role of reduced graphene oxide in the critical components of a CdS-sensitized TiO2 -based photoelectrochemical cell. *ChemPhysChem*, **2014**, 15, 2010-8	3.2	14
17	Hydrogen Generation Using a Borohydride-Based Semi-continuous Milli-scale Reactor: Effects of Physicochemical Parameters on Hydrogen Yield. *Energy & Fuels*, **2009**, 23, 408-413	4.1	14
16	Development of a highly efficient 1D/0D TiO2 nanotube/n-CdTe photoanode: single-step attachment, coverage, and size control by a solvothermal approach. *Journal of Materials Chemistry A*, **2014**, 2, 4890	13	12
15	A Simple Photocell To Demonstrate Solar Energy Using Benign Household Ingredients. *Journal of Chemical Education*, **2013**, 90, 1358-1361	2.4	12
14	A unique architecture based on 1 D semiconductor, reduced graphene oxide, and chalcogenide with multifunctional properties. *Chemistry - A European Journal*, **2014**, 20, 10456-65	4.8	11
13	Electrophoretic assembly of naturally occurring humic substances as thin films. *Environmental Science & Technology*, **2003**, 37, 761-5	10.3	11
12	Insights into the photoactivity of iron modified bismuth titanate (Fe_BTO) nanoparticles. *Catalysis Today*, **2018**, 300, 81-88	5.3	9
11	A one-pot strategy for coupling chalcogenide nanocrystals with 1D oxides for solar-driven processes. *Journal of Materials Chemistry A*, **2015**, 3, 24297-24302	13	7
10	TiO2□Al2O3 as a support for propane partial oxidation over Rh. *Catalysis Letters*, **2007**, 113, 13-18	2.8	7
9	How Beneficial Is Reduced Graphene Oxide (RGO) for Long-Term Photo Generated Charge Transport in Bismuth Titanate □RGO Nanocomposite Films?. *Journal of the Electrochemical Society*, **2016**, 163, H147-H153	3.9	5
8	Photoelectrochemical responses of anodized titanium oxide films. *Journal of Materials Research*, **2010**, 25, 82-88	2.5	5
7	EditorsTChoice□The Photoelectrochemical and Photocatalytic Properties of Tantalum Oxide and Tantalum Nitride. *Journal of the Electrochemical Society*, **2019**, 166, H3294-H3299	3.9	4
6	Free energy dependence of pure phase iron doped bismuth titanate from first principles calculations. *Journal of Physics Condensed Matter*, **2015**, 27, 315502	1.8	4

5	Synthesis and characterization of polyvinylpyrrolidine assisted tantalum pentoxide films. *Thin Solid Films*, **2008**, 516, 4784-4792	2.2	4
4	A Selective Synthesis of TaON Nanoparticles and Their Comparative Study of Photoelectrochemical Properties. *Catalysts*, **2020**, 10, 1128	4	3
3	Hydrogen Production and Photodegradation at TiO2/Metal/CdS Sandwich Using UV–Visible Light. *Springer Series in Materials Science*, **2016**, 141-167	0.9	1
2	Rapid synthesis of tantalum oxide dielectric films by microwave microwave-assisted atmospheric chemical vapor deposition. *Thin Solid Films*, **2008**, 516, 8307-8314	2.2	1
1	Simultaneous Photodegradation and Hydrogen Production with TiO2/Pt/CdS Using UV–Visible Light in the Presence of a Sacrificial Agent and a Pollutant. *Nanostructure Science and Technology*, **2014**, 153-171	0.9	