

Pratap M Rao

List of Publications by Year in descending order

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39
papers

3,342
citations

279798

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41
all docs

41
docs citations

41
times ranked

5210
citing authors

#	ARTICLE	IF	CITATIONS
1	Branched TiO ₂ Nanorods for Photoelectrochemical Hydrogen Production. Nano Letters, 2011, 11, 4978-4984.	9.1	843
2	Simultaneously Efficient Light Absorption and Charge Separation in WO ₃ /BiVO ₄ Core/Shell Nanowire Photoanode for Photoelectrochemical Water Oxidation. Nano Letters, 2014, 14, 1099-1105.	9.1	652
3	Codoping titanium dioxide nanowires with tungsten and carbon for enhanced photoelectrochemical performance. Nature Communications, 2013, 4, 1723.	12.8	249
4	High Light Absorption and Charge Separation Efficiency at Low Applied Voltage from Sb-Doped SnO ₂ /BiVO ₄ Core/Shell Nanorod-Array Photoanodes. Nano Letters, 2016, 16, 3463-3474.	9.1	166
5	Morphology-Controlled Flame Synthesis of Single, Branched, and Flower-like $\hat{\pm}$ -MoO ₃ Nanobelt Arrays. Nano Letters, 2011, 11, 872-877.	9.1	153
6	Hybrid Si Microwire and Planar Solar Cells: Passivation and Characterization. Nano Letters, 2011, 11, 2704-2708.	9.1	151
7	Flash ignition of Al nanoparticles: Mechanism and applications. Combustion and Flame, 2011, 158, 2544-2548.	5.2	127
8	Rapid Catalyst-Free Flame Synthesis of Dense, Aligned $\hat{\pm}$ -Fe ₂ O ₃ Nanoflake and CuO Nanoneedle Arrays. Nano Letters, 2009, 9, 3001-3006.	9.1	108
9	Flame synthesis of WO ₃ nanotubes and nanowires for efficient photoelectrochemical water-splitting. Proceedings of the Combustion Institute, 2013, 34, 2187-2195.	3.9	83
10	Unique Magnetic Properties of Single Crystal $\hat{\pm}$ -Fe ₂ O ₃ Nanowires Synthesized by Flame Vapor Deposition. Nano Letters, 2011, 11, 2390-2395.	9.1	80
11	Synthesis and ignition of energetic CuO/Al core/shell nanowires. Proceedings of the Combustion Institute, 2011, 33, 1909-1915.	3.9	76
12	Thermal conductivity in porous silicon nanowire arrays. Nanoscale Research Letters, 2012, 7, 554.	5.7	64
13	Ultrafast carrier dynamics in BiVO ₄ thin film photoanode material: interplay between free carriers, trapped carriers and low-frequency lattice vibrations. Journal of Materials Chemistry A, 2016, 4, 18516-18523.	10.3	60
14	Sol-Flame Synthesis: A General Strategy To Decorate Nanowires with Metal Oxide/Noble Metal Nanoparticles. Nano Letters, 2013, 13, 855-860.	9.1	48
15	Sol-flame synthesis of cobalt-doped TiO ₂ nanowires with enhanced electrocatalytic activity for oxygen evolution reaction. Physical Chemistry Chemical Physics, 2014, 16, 12299-12306.	2.8	44
16	Methane oxidation over catalytic copper oxides nanowires. Proceedings of the Combustion Institute, 2011, 33, 3169-3175.	3.9	42
17	Photoelectrochemical Properties and Behavior of $\hat{\pm}$ -SnWO ₄ Photoanodes Synthesized by Hydrothermal Conversion of WO ₃ Films. ACS Applied Materials & Interfaces, 2017, 9, 1459-1470.	8.0	42
18	Flame synthesis of tungsten oxide nanostructures on diverse substrates. Proceedings of the Combustion Institute, 2011, 33, 1891-1898.	3.9	41

#	ARTICLE	IF	CITATIONS
19	Balancing Light Absorption and Charge Transport in Vertical SnS ₂ Nanoflake Photoanodes with Stepped Layers and Large Intrinsic Mobility. <i>Advanced Energy Materials</i> , 2019, 9, 1901236.	19.5	41
20	Electroassisted Transfer of Vertical Silicon Wire Arrays Using a Sacrificial Porous Silicon Layer. <i>Nano Letters</i> , 2013, 13, 4362-4368.	9.1	33
21	Photoanode with Enhanced Performance Achieved by Coating BiVO ₄ onto ZnO-Templated Sb-Doped SnO ₂ Nanotube Scaffold. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 11356-11362.	8.0	33
22	The structural and electronic properties of reduced amorphous titania. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 18671-18684.	2.8	31
23	Enhancing the solar energy conversion efficiency of solution-deposited Bi ₂ S ₃ thin films by annealing in sulfur vapor at elevated temperature. <i>Sustainable Energy and Fuels</i> , 2017, 1, 2134-2144.	4.9	25
24	Reducing minimum flash ignition energy of Al microparticles by addition of WO ₃ nanoparticles. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	20
25	A Noninvasive Miniaturized Transcutaneous Oxygen Monitor. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2021, 15, 474-485.	4.0	20
26	Flame synthesis of 1-D complex metal oxide nanomaterials. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 2229-2236.	3.9	19
27	Sol-flame synthesis of hybrid metal oxide nanowires. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 2179-2186.	3.9	15
28	Niobium Doping in BiVO ₄ : Interplay Between Effective Mass, Stability, and Pressure. <i>ChemPhysChem</i> , 2019, 20, 773-784.	2.1	14
29	Dynamics of Photoexcited Carriers in Polycrystalline PbS and at PbS/ZnO Heterojunctions: Influence of Grain Boundaries and Interfaces. <i>Journal of Physical Chemistry C</i> , 2018, 122, 11682-11688.	3.1	12
30	Rapid Synthesis of Thin and Long Mo ₁₇ O ₄₇ Nanowire-Arrays in an Oxygen Deficient Flame. <i>Scientific Reports</i> , 2016, 6, 27832.	3.3	11
31	Atomic Layer Deposition of Space-Efficient SnO ₂ Underlayers for BiVO ₄ Host-Guest Architectures for Photoassisted Water Splitting. <i>ChemSusChem</i> , 2019, 12, 1916-1924.	6.8	10
32	Synthesis and optoelectronic properties of a promising quaternary metal oxide light absorber CuBiW ₂ O ₈ . <i>Journal of Materials Chemistry A</i> , 2021, 9, 1643-1654.	10.3	8
33	Stability and electronic properties of edges of SnS_2 . <i>Physical Review B</i> , 2020, 102, .		
34	Morphological control of heterostructured nanowires synthesized by sol-flame method. <i>Nanoscale Research Letters</i> , 2013, 8, 347.	5.7	6
35	Superhydrophobic behavior of polymer-coated nanowire-arrays as a function of interfacial affinity and etching. <i>Materials Research Express</i> , 2019, 6, 095099.	1.6	3
36	Ultrafast carrier dynamics in BiVO ₄ : Interplay between free carriers, trapped carriers and low-frequency lattice vibrations. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
37	Carrier Dynamics in SnS ₂ Single Crystals and Vertical Nanostructures: Role of Edges. , 2018, , .		1
38	Atomic Layer Deposition of Space-Efficient SnO ₂ Underlayers for BiVO ₄ Host-Guest Architectures for Photoassisted Water Splitting. ChemSusChem, 2019, 12, 1770-1770.	6.8	1
39	All-electrodeposited p-Cu ₂ ZnSnS ₄ /n-In ₂ S ₃ Heterojunction Formation for Solar Cell Applications. , 2018, , .		0