Purushothaman Varadhan

List of Publications by Year
in descending order

30 papers	1,542 citations	430442 18 h-index	476904 29 g-index
30 all docs	30 docs citations	30 times ranked	2558 citing authors

#	ARTICLE	IF	CITATIONS
1	Surfaceâ€Structured Cocatalyst Foils Unraveling a Pathway to Highâ€Performance Solar Water Splitting. Advanced Energy Materials, 2022, 12, 2102752.	10.2	11
2	Rational Design of Photoelectrodes for the Fully Integrated Polymer Electrode Membraneâ€“Photoelectrochemical Water-Splitting System: A Case Study of Bismuth Vanadate. ACS Applied Energy Materials, 2021, 4, 9600-9610.	2.5	10
3	An efficient and durable trifunctional electrocatalyst for zincâ€“air batteries driven overall water splitting. Applied Catalysis B: Environmental, 2021, 297, 120405.	10.8	127
4	Solar Water Splitting: Over 17% Efficiency Standâ€Alone Solar Water Splitting Enabled by Perovskiteâ€Silicon Tandem Absorbers (Adv. Energy Mater. 28/2020). Advanced Energy Materials, 2020, 10, 2070122.	10.2	4
5	Spontaneous solar water splitting with decoupling of light absorption and electrocatalysis using silicon back-buried junction. Nature Communications, 2020, 11, 3930.	5.8	45
6	NanoCharacterization of Double PN Heterojunctions in Photoelectrochemical Devices. Microscopy and Microanalysis, 2020, 26, 1408-1410.	0.2	0
7	Over 17% Efficiency Standâ€Alone Solar Water Splitting Enabled by Perovskiteâ€Silicon Tandem Absorbers. Advanced Energy Materials, 2020, 10, 2000772.	10.2	58
8	Improved performance and stability of photoelectrochemical water-splitting Si system using a bifacial design to decouple light harvesting and electrocatalysis. Nano Energy, 2020, 70, 104478.	8.2	37
9	Heteroatomâ€Mediated Interactions between Ruthenium Single Atoms and an MXene Support for Efficient Hydrogen Evolution. Advanced Materials, 2019, 31, e1903841.	11.1	363
10	Importance of Oxygen Measurements during Photoelectrochemical Water-Splitting Reactions. ACS Energy Letters, 2019, 4, 2712-2718.	8.8	21
11	Highly Efficient and Stable Photoelectrochemical Hydrogen Evolution with 2D-NbS₂/Si Nanowire Heterojunction. ACS Applied Materials & Interfaces, 2019, 11, 44179-44185.	4.0	39
12	Enhanced photoelectrochemical hydrogen production efficiency of MoS₂-Si heterojunction. Optics Express, 2019, 27, A352.	1.7	91
13	An efficient and stable photoelectrochemical system with 9% solar-to-hydrogen conversion efficiency via InGaP/GaAs double junction. Nature Communications, 2019, 10, 5282.	5.8	98
14	High performance, self-powered photodetectors based on a graphene/silicon Schottky junction diode. Journal of Materials Chemistry C, 2018, 6, 9545-9551.	2.7	126
15	Surface Passivation of GaN Nanowires for Enhanced Photoelectrochemical Water-Splitting. Nano Letters, 2017, 17, 1520-1528.	4.5	175
16	Hybrid electrolytes based on ionic liquids and amorphous porous silicon nanoparticles: Organization and electrochemical properties. Applied Materials Today, 2017, 9, 10-20.	2.3	16
17	Raman selection rule for surface optical phonons in ZnS nanobelts. Nanoscale, 2016, 8, 5954-5958.	2.8	18
18	Point defects assisted NH3 gas sensing properties in ZnO nanostructures. Sensors and Actuators B: Chemical, 2015, 212, 10-17.	4.0	58

#	Article	IF	Citations
19	Ferromagnetism in undoped One-dimensional GaN Nanowires. AIP Advances, 2014, 4, .	0.6	8
20	Photocatalytic dye degradation properties of wafer level GaN nanowires by catalytic and self-catalytic approach using chemical vapor deposition. RSC Advances, 2014, 4, 25569-25575.	1.7	7
21	The effect of nitridation temperature on the structural, optical and electrical properties of GaN nanoparticles. CrystEngComm, 2014, 16, 3584-3591.	1.3	21
22	Direct comparison on the structural and optical properties of metal-catalytic and self-catalytic assisted gallium nitride (GaN) nanowires by chemical vapor deposition. RSC Advances, 2014, 4, 45100-45108.	1.7	8
23	Investigations on the role of Ni-catalyst for the VLS growth of quasi-aligned GaN nanowires by chemical vapor deposition. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	15
24	Structural Evolution and Growth Mechanism of Self-Assembled Wurtzite Gallium Nitride (GaN) Nanostructures by Chemical Vapor Deposition. Journal of Physical Chemistry C, 2013, 117, 7348-7357.	1.5	29
25	Interplay of VLS and VS growth mechanism for GaN nanowires by a self-catalytic approach. RSC Advances, 2012, 2, 4802.	1.7	35
26	Structural and optical properties of GaN and InGaN nanoparticles by chemical co-precipitation method. Materials Research Bulletin, 2012, 47, 3323-3329.	2.7	25
27	Whiskered GaN nanowires by self-induced VLS approach using chemical vapor deposition. CrystEngComm, 2012, 14, 8390.	1.3	17
28	Role of point defects on the enhancement of room temperature ferromagnetism in ZnO nanorods. CrystEngComm, 2012, 14, 4713.	1.3	49
29	Effect of vacuum annealing on the structural, optical, and electrical properties of sprayâ€deposited Gaâ€doped ZnO thin films. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1481-1486.	0.8	14
30	Raman scattering on intrinsic surface electron accumulation of InN nanowires. Applied Physics Letters, 2010, 97, .	1.5	17