Vempuluru Navakoteswara Rao

List of Publications by Citations

32 papers	1,035 citations	18 h-index	32 g-index
32 ext. papers	1,397 ext. citations	7.4 avg, IF	5.09 L-index

#	Paper	IF	Citations
32	Photocatalytic recovery of H2 from H2S containing wastewater: Surface and interface control of photo-excitons in Cu2S@TiO2 core-shell nanostructures. *Applied Catalysis B: Environmental*, **2019**, 254, 174-185	21.8	167
31	A review on frontiers in plasmonic nano-photocatalysts for hydrogen production. *International Journal of Hydrogen Energy*, **2019**, 44, 10453-10472	6.7	148
30	Sustainable hydrogen production for the greener environment by quantum dots-based efficient photocatalysts: A review. *Journal of Environmental Management*, **2019**, 248, 109246	7.9	80
29	Nanostructured semiconducting materials for efficient hydrogen generation. *Environmental Chemistry Letters*, **2018**, 16, 765-796	13.3	64
28	Defect-Rich MoS2 Ultrathin Nanosheets-Coated Nitrogen-Doped ZnO Nanorod Heterostructures: An Insight into in-Situ-Generated ZnS for Enhanced Photocatalytic Hydrogen Evolution. *ACS Applied Energy Materials*, **2019**, 2, 5622-5634	6.1	62
27	The facile hydrothermal synthesis of CuO@ZnO heterojunction nanostructures for enhanced photocatalytic hydrogen evolution. *New Journal of Chemistry*, **2019**, 43, 6794-6805	3.6	55
26	Interplay between Mesocrystals of CaTiO3 and Edge Sulfur Atom Enriched MoS2 on Reduced Graphene Oxide Nanosheets: Enhanced Photocatalytic Performance under Sunlight Irradiation. *ChemPhotoChem*, **2020**, 4, 427-444	3.3	47
25	CuO@NiO core-shell nanoparticles decorated anatase TiO2 nanospheres for enhanced photocatalytic hydrogen production. *International Journal of Hydrogen Energy*, **2020**, 45, 7517-7529	6.7	36
24	Effective shuttling of photoexcitons on CdS/NiO core/shell photocatalysts for enhanced photocatalytic hydrogen production. *Materials Research Bulletin*, **2018**, 101, 223-231	5.1	35
23	CuO Cr 2 O 3 core-shell structured co-catalysts on TiO 2 for efficient photocatalytic water splitting using direct solar light. *International Journal of Hydrogen Energy*, **2018**, 43, 3976-3987	6.7	35
22	High potential and robust ternary LaFeO/CdS/carbon quantum dots nanocomposite for photocatalytic H evolution under sunlight illumination. *Journal of Colloid and Interface Science*, **2021**, 583, 255-266	9.3	32
21	Pt/TiO nanotube photocatalyst - Effect of synthesis methods on valance state of Pt and its influence on hydrogen production and dye degradation. *Journal of Colloid and Interface Science*, **2019**, 538, 83-98	9.3	30
20	Synthesis of titania wrapped cadmium sulfide nanorods for photocatalytic hydrogen generation. *Materials Research Bulletin*, **2018**, 103, 122-132	5.1	29
19	Unraveling the structural and morphological stability of oxygen vacancy engineered leaf-templated CaTiO3 towards photocatalytic H2 evolution and N2 fixation reactions. *Journal of Materials Chemistry A*, **2021**, 9, 17006-17018	13	27
18	Development of high quantum efficiency CdS/ZnS core/shell structured photocatalyst for the enhanced solar hydrogen evolution. *International Journal of Hydrogen Energy*, **2018**, 43, 22315-22328	6.7	26
17	Three-Dimensional Carbonaceous Aerogels Embedded with Rh-SrTiO3 for Enhanced Hydrogen Evolution Triggered by Efficient Charge Transfer and Light Absorption. *ACS Applied Energy Materials*, **2020**, 3, 12134-12147	6.1	22
16	Optimization of N doping in TiO nanotubes for the enhanced solar light mediated photocatalytic H production and dye degradation. *Environmental Pollution*, **2021**, 269, 116170	9.3	22

15	Tetrathiafulvalene Scaffold-Based Sensitizer on Hierarchical Porous TiO2: Efficient Light-Harvesting Material for Hydrogen Production. *Journal of Physical Chemistry C*, **2019**, 123, 70-81	3.8	18
14	Sea urchin shaped ZnO coupled with MoS2 and polyaniline as highly efficient photocatalysts for organic pollutant decomposition and hydrogen evolution. *Ceramics International*, **2021**, 47, 10301-10313	5.1	17
13	Monodispersed core/shell nanospheres of ZnS/NiO with enhanced H generation and quantum efficiency at versatile photocatalytic conditions. *Journal of Hazardous Materials*, **2021**, 413, 125359	12.8	14
12	Retorting Photocorrosion and Enhanced Charge Carrier Separation at CdSe Nanocapsules by Chemically Synthesized TiO2 Shell for Photocatalytic Hydrogen Fuel Generation. *ChemCatChem*, **2020**, 12, 3139-3152	5.2	10
11	Light-driven transformation of biomass into chemicals using photocatalysts - Vistas and challenges. *Journal of Environmental Management*, **2021**, 284, 111983	7.9	10
10	Metal chalcogenide-based core/shell photocatalysts for solar hydrogen production: Recent advances, properties and technology challenges. *Journal of Hazardous Materials*, **2021**, 415, 125588	12.8	10
9	Heterojunction of CdS Nanocapsules□WO3 Nanosheets Composite as a Stable and Efficient Photocatalyst for Hydrogen Evolution. *Energy & Fuels*, **2020**, 34, 14598-14610	4.1	7
8	Manifestation of enhanced and durable photocatalytic H2 production using hierarchically structured Pt@Co3O4/TiO2 ternary nanocomposite. *Ceramics International*, **2021**, 47, 10226-10235	5.1	7
7	Solar hydrogen generation from organic substance using earth abundant CuS□NiO heterojunction semiconductor photocatalyst. *Ceramics International*, **2021**, 47, 10206-10215	5.1	7
6	Gram-scale synthesis of ZnS/NiO core-shell hierarchical nanostructures and their enhanced H production in crude glycerol and sulphide wastewater. *Environmental Research*, **2021**, 199, 111323	7.9	6
5	Significantly enhanced cocatalyst-free H2 evolution from defect-engineered Brown TiO2. *Ceramics International*, **2021**, 47, 14821-14828	5.1	5
4	Surfactant controlled metal oxide shell layer deposition for enhanced photocatalytic solar hydrogen generation: CdSe/TiO2 nanocomposite a case study. *Materials Letters*, **2021**, 298, 130025	3.3	4
3	Heterojunction engineering at ternary Cu2S/Ta2O5/CdS nanocomposite for enhanced visible light-driven photocatalytic hydrogen evolution. *Materials Today Energy*, **2021**, 21, 100779	7	2
2	Temperature-Driven Morphology Control on CdSe Nanofractals and Its Influence over the Augmented Rate of H2 Evolution: Charge Separation via the S-Scheme Mechanism with Incorporated Cu3P. *ACS Applied Energy Materials*, **2021**, 4, 13983-13996	6.1	1
1	Solar-light responsive efficient H2 evolution using a novel ternary hierarchical SrTiO3/CdS/carbon nanospheres photocatalytic system. *Journal of Nanostructure in Chemistry*,1	7.6	0