Vempuluru Navakoteswara Rao

List of Publications by Year
in descending order

32 papers	1,752 citations	304602 22 h-index	414303 32 g-index
32 all docs	32 docs citations	32 times ranked	1864 citing authors

#	Article	IF	Citations
1	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.	10.8	209
2	A review on frontiers in plasmonic nano-photocatalysts for hydrogen production. International Journal of Hydrogen Energy, 2019, 44, 10453-10472.	3.8	194
3	Sustainable hydrogen production for the greener environment by quantum dots-based efficient photocatalysts: A review. Journal of Environmental Management, 2019, 248, 109246.	3.8	122
4	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.	2.5	109
5	Nanostructured semiconducting materials for efficient hydrogen generation. Environmental Chemistry Letters, 2018, 16, 765-796.	8.3	97
6	The facile hydrothermal synthesis of CuO@ZnO heterojunction nanostructures for enhanced photocatalytic hydrogen evolution. New Journal of Chemistry, 2019, 43, 6794-6805.	1.4	82
7	High potential and robust ternary LaFeO3/CdS/carbon quantum dots nanocomposite for photocatalytic H2 evolution under sunlight illumination. Journal of Colloid and Interface Science, 2021, 583, 255-266.	5.0	73
8	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.	1.5	72
9	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.	5.2	72
10	CuO@NiO core-shell nanoparticles decorated anatase TiO2 nanospheres for enhanced photocatalytic hydrogen production. International Journal of Hydrogen Energy, 2020, 45, 7517-7529.	3.8	59
11	Optimization of N doping in TiO2 nanotubes for the enhanced solar light mediated photocatalytic H2 production and dye degradation. Environmental Pollution, 2021, 269, 116170.	3.7	58
12	Effective shuttling of photoexcitons on CdS/NiO core/shell photocatalysts for enhanced photocatalytic hydrogen production. Materials Research Bulletin, 2018, 101, 223-231.	2.7	53
13	Pt/TiO2 nanotube photocatalyst â€“ 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.	5.0	51
14	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.	2.5	49
15	Synthesis of titania wrapped cadmium sulfide nanorods for photocatalytic hydrogen generation. Materials Research Bulletin, 2018, 103, 122-132.	2.7	43
16	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.	3.8	42
17	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.	2.3	42
18	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.	3.8	40

#	Article	IF	Citations
19	Metal chalcogenide-based core/shell photocatalysts for solar hydrogen production: Recent advances, properties and technology challenges. Journal of Hazardous Materials, 2021, 415, 125588.	6.5	37
20	Monodispersed core/shell nanospheres of ZnS/NiO with enhanced H2 generation and quantum efficiency at versatile photocatalytic conditions. Journal of Hazardous Materials, 2021, 413, 125359.	6.5	36
21	Tetrathiafulvalene Scaffold-Based Sensitizer on Hierarchical Porous TiO₂: Efficient Light-Harvesting Material for Hydrogen Production. Journal of Physical Chemistry C, 2019, 123, 70-81.	1.5	23
22	Light-driven transformation of biomass into chemicals using photocatalysts â€“ Vistas and challenges. Journal of Environmental Management, 2021, 284, 111983.	3.8	23
23	Manifestation of enhanced and durable photocatalytic H2 production using hierarchically structured Pt@Co3O4/TiO2 ternary nanocomposite. Ceramics International, 2021, 47, 10226-10235.	2.3	22
24	Heterojunction of CdS Nanocapsulesâ€“WO₃ Nanosheets Composite as a Stable and Efficient Photocatalyst for Hydrogen Evolution. Energy & Fuels, 2020, 34, 14598-14610.	2.5	22
25	Significantly enhanced cocatalyst-free H2 evolution from defect-engineered Brown TiO2. Ceramics International, 2021, 47, 14821-14828.	2.3	20
26	Gram-scale synthesis of ZnS/NiO core-shell hierarchical nanostructures and their enhanced H2 production in crude glycerol and sulphide wastewater. Environmental Research, 2021, 199, 111323.	3.7	20
27	Solar hydrogen generation from organic substance using earth abundant CuSâ€“NiO heterojunction semiconductor photocatalyst. Ceramics International, 2021, 47, 10206-10215.	2.3	19
28	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.	1.8	17
29	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.	2.5	17
30	Solar-light responsive efficient H2 evolution using a novel ternary hierarchical SrTiO3/CdS/carbon nanospheres photocatalytic system. Journal of Nanostructure in Chemistry, 2022, 12, 179-191.	5.3	11
31	Surfactant controlled metal oxide shell layer deposition for enhanced photocatalytic solar hydrogen generation: CdSe/TiO2 nanocomposite a case study. Materials Letters, 2021, 298, 130025.	1.3	10
32	Heterojunction engineering at ternary Cu2S/Ta2O5/CdS nanocomposite for enhanced visible light-driven photocatalytic hydrogen evolution. Materials Today Energy, 2021, 21, 100779.	2.5	8