Venkataramanan Mahalingam

List of Publications by Year
in descending order

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77 papers	3,458 citations	236925 25 h-index	138484 58 g-index
80 all docs	80 docs citations	80 times ranked	3730 citing authors

#	ARTICLE	IF	CITATIONS
1	The Activeâ€Core/Activeâ€Shell Approach: A Strategy to Enhance the Upconversion Luminescence in Lanthanideâ€Doped Nanoparticles. Advanced Functional Materials, 2009, 19, 2924-2929.	14.9	677
2	Colloidal Tm³⁺/Yb³⁺â€Doped LiYF₄ Nanocrystals: Multiple Luminescence Spanning the UV to NIR Regions via Lowâ€Energy Excitation. Advanced Materials, 2009, 21, 4025-4028.	21.0	400
3	Controlled Synthesis and Water Dispersibility of Hexagonal Phase NaGdF₄:Ho³⁺/Yb³⁺ Nanoparticles. Chemistry of Materials, 2009, 21, 717-723.	6.7	357
4	Near-Infrared-to-Blue Upconversion in Colloidal BaYF₅:Tm³⁺, Yb³⁺ Nanocrystals. Chemistry of Materials, 2009, 21, 1847-1851.	6.7	230
5	Bright White Upconversion Emission from Tm³⁺/Yb³⁺/Er³⁺-Doped Lu₃Ga₅O₁₂ Nanocrystals. Journal of Physical Chemistry C, 2008, 112, 17745-17749.	3.1	148
6	Microwave Synthesis, Photoluminescence, and Photocatalytic Activity of PVA-Functionalized Eu³⁺-Doped BiOX (X = Cl, Br, I) Nanoflakes. Langmuir, 2014, 30, 1401-1409.	3.5	138
7	Highly Selective and Sensitive Detection of Cu²⁺ Ions Using Ce(III)/Tb(III)-Doped SrF₂ Nanocrystals as Fluorescent Probe. ACS Applied Materials & Interfaces, 2015, 7, 25702-25708.	8.0	98
8	Subâ€5 nm Ln³⁺â€doped BaLuF₅ Nanocrystals: A Platform to Realize Upconversion via Interparticle Energy Transfer (IPET). Advanced Materials, 2013, 25, 856-860.	21.0	88
9	Structural and optical investigation of colloidal Ln3+/Yb3+ co-doped KY3F10 nanocrystals. Journal of Materials Chemistry, 2009, 19, 3149.	6.7	84
10	Sensitized Ce³⁺ and Gd³⁺ Ultraviolet Emissions by Tm³⁺ in Colloidal LiYF₄ Nanocrystals. Chemistry - A European Journal, 2009, 15, 9660-9663.	3.3	63
11	A Highly Efficient UVâ€“Visâ€“NIR Active Ln³⁺-Doped BiPO₄/BiVO₄ Nanocomposite for Photocatalysis Application. Langmuir, 2016, 32, 247-253.	3.5	61
12	Ni_{0.85}Se/MoSe₂ Interfacial Structure: An Efficient Electrocatalyst for Alkaline Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 2828-2837.	5.1	60
13	Highly Luminescent Colloidal Eu³⁺â€Doped KZnF₃ Nanoparticles for the Selective and Sensitive Detection of Cu^{II} Ions. Chemistry - A European Journal, 2014, 20, 3311-3316.	3.3	51
14	Bilayer stabilized Ln³⁺-doped CaMoO₄ nanocrystals with high luminescence quantum efficiency and photocatalytic properties. Dalton Transactions, 2014, 43, 6623-6630.	3.3	44
15	Design of Lanthanide-Doped Colloidal Nanocrystals: Applications as Phosphors, Sensors, and Photocatalysts. Langmuir, 2019, 35, 6211-6230.	3.5	44
16	Efficient CO₂ fixation under ambient pressure using poly(ionic liquid)-based heterogeneous catalysts. Sustainable Energy and Fuels, 2019, 3, 935-941.	4.9	43
17	3,5-Dinitrobenzoic Acid-Capped Upconverting Nanocrystals for the Selective Detection of Melamine. ACS Applied Materials & Interfaces, 2014, 6, 7833-7839.	8.0	40
18	g-C₃N₄ and tetrabutylammonium bromide catalyzed efficient conversion of epoxide to cyclic carbonate under ambient conditions. New Journal of Chemistry, 2017, 41, 14839-14842.	2.8	39

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19	Ionic Liquidâ€Intercalated Metallic MoS₂ as a Superior Electrode for Energy Storage Applications. ChemNanoMat, 2020, 6, 685-695.	2.8	38
20	Tuning the crystalline phase and morphology of the YF3:Eu3+ microcrystals through fluoride source. CrystEngComm, 2013, 15, 5750.	2.6	34
21	Enhanced visible and near infrared emissions via Ce³⁺to Ln³⁺energy transfer in Ln³⁺-doped CeF₃nanocrystals (Ln = Nd and Sm). Dalton Transactions, 2016, 45, 78-84.	3.3	33
22	Near-infrared light triggered superior photocatalytic activity from MoS₂â€“NaYF₄:Yb³⁺/Er³⁺ nanocomposites. Dalton Transactions, 2016, 45, 12384-12392.	3.3	32
23	Design Principle of Monoclinic NiCo₂Se₄ and Co₃Se₄ Nanoparticles with Opposing Intrinsic and Geometric Electrocatalytic Activity toward the OER. Inorganic Chemistry, 2021, 60, 9542-9551.	4.0	32
24	A resonance energy transfer approach for the selective detection of aromatic amino acids. Journal of Materials Chemistry C, 2014, 2, 10157-10163.	5.5	29
25	C-dot sensitized Eu³⁺ luminescence from Eu³⁺-doped LaF₃â€“C dot nanocomposites. New Journal of Chemistry, 2015, 39, 106-109.	2.8	25
26	Ce³⁺ sensitized bright white light emission from colloidal Ln³⁺ doped CaF₂ nanocrystals for the development of transparent nanocomposites. Journal of Materials Chemistry C, 2016, 4, 2289-2294.	5.5	25
27	Inception of molybdate as a â€œpore forming additiveâ€•to enhance the bifunctional electrocatalytic activity of nickel and cobalt based mixed hydroxides for overall water splitting. Nanoscale, 2019, 11, 16896-16906.	5.6	24
28	Inception of Co₃O₄as Microstructural Support to Promote Alkaline Oxygen Evolution Reaction for Co_{0.85}Se/Co₉Se₈Network. Inorganic Chemistry, 2020, 59, 17326-17339.	4.0	22
29	Host sensitized intense infrared emissions from Ln³⁺ doped GdVO₄ nanocrystals: ranging from 950 nm to 2000 nm. Journal of Materials Chemistry C, 2018, 6, 4878-4886.	5.5	20
30	MoO₂ as a Propitious â€œPore-Forming Additiveâ€•for Boosting the Water Oxidation Activity of Cobalt Oxalate Microrods. Journal of Physical Chemistry C, 2020, 124, 20010-20020.	3.1	19
31	Triazineâ€based Organic Polymerâ€catalysed Conversion of Epoxide to Cyclic Carbonate under Ambient CO₂ Pressure. Chemistry - an Asian Journal, 2020, 15, 1683-1687.	3.3	19
32	Nickelâ€“cobalt oxalate as an efficient non-precious electrocatalyst for an improved alkaline oxygen evolution reaction. Nanoscale Advances, 2021, 3, 3770-3779.	4.6	19
33	Influence of Vanadate Structure on Electrochemical Surface Reconstruction and OER Performance of CoV₂O₆ and Co₃V₂O₈. ACS Applied Energy Materials, 2021, 4, 5381-5387.	5.1	18
34	Effect of Intrinsic Properties of Anions on the Electrocatalytic Activity of NiCo₂O₄ and NiCo₂O_xS_{4â€“x} Grown by Chemical Bath Deposition. ACS Omega, 2018, 3, 9066-9074.	3.5	17
35	Electrochemical Reconstruction of Zn_{0.3}Co_{2.7}(PO₄)₂Â·4H₂O for Enhanced Water Oxidation Performance. ACS Applied Energy Materials, 2020, 3, 12088-12098.	5.1	17
36	Strong Singleâ€Band Blue Emission from Colloidal Ce³⁺/Tm³⁺â€Doped NaYF₄ Nanocrystals for Lightâ€Emitting Applications. ChemPhysChem, 2015, 16, 2312-2316.	2.1	16

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37	Methyl Oleate-Capped Upconverting Nanocrystals: A Simple and General Ligand Exchange Strategy To Render Nanocrystals Dispersible in Aqueous and Organic Medium. Langmuir, 2015, 31, 5521-5528.	3.5	15
38	Photoluminescence and photocatalytic activity of monodispersed colloidal â€œligand free Ln³⁺-doped PbMoO₄ nanocrystalsâ€• RSC Advances, 2015, 5, 45611-45617.	3.6	15
39	Glutathione-modified ultrasmall Ce3+and Tb3+-doped SrF2 nanocrystals for fluorescent determination of Hg(II) and Pb(II) ions. Mikrochimica Acta, 2016, 183, 133-140.	5.0	14
40	Paradoxical Observance of â€œIntrinsicâ€•and â€œGeometricâ€•Oxygen Evolution Electrocatalysis in Phase-Tuned Cobalt Oxide/Hydroxide Nanoparticles. ACS Applied Nano Materials, 2019, 2, 7957-7968.	5.0	13
41	Fe and W doped Bi₂MoO₆ nanoflakes: a promising material for efficient solar water splitting. Sustainable Energy and Fuels, 2020, 4, 1507-1514.	4.9	13
42	Engineering of oxygen vacancy as defect sites in silicates for removal of diverse organic pollutants and enhanced aromatic alcohol oxidation. Journal of Environmental Chemical Engineering, 2021, 9, 105134.	6.7	13
43	Halide-free catalytic carbon dioxide fixation of epoxides to cyclic carbonates under atmospheric pressure. Sustainable Energy and Fuels, 2022, 6, 420-429.	4.9	13
44	para-Aminobenzoic acid-capped hematite as an efficient nanocatalyst for solvent-free CO₂ fixation under atmospheric pressure. Dalton Transactions, 2022, 51, 1918-1926.	3.3	13
45	Ligand sensitized strong luminescence from Eu³⁺-doped LiYF₄ nanocrystals: a photon down-shifting strategy to increase solar-to-current conversion efficiency. Dalton Transactions, 2017, 46, 9646-9653.	3.3	12
46	Highly Sensitive Upconverting Nanoplatform for Luminescent Thermometry from Ambient to Cryogenic Temperature. ChemPhysChem, 2020, 21, 1731-1736.	2.1	12
47	Nanoporous Graphitic Carbon Nitride Nanosheets Decorated with Nickelâ€“Cobalt Oxalate for Battery-Like Supercapacitors. ACS Applied Nano Materials, 2022, 5, 7246-7258.	5.0	12
48	4-Mercaptobenzoic acid capped terbium(III)-doped CaF2 nanocrystals: a fluorescent probe for nitroaromatic pollutants. Mikrochimica Acta, 2019, 186, 389.	5.0	11
49	Gallic acid capped Tb³⁺-doped CaF₂ nanocrystals: an efficient optical probe for the detection of carbonate and bicarbonate ions. Journal of Materials Chemistry C, 2021, 9, 4267-4274.	5.5	11
50	Ethylene glycol-mediated one-pot synthesis of Fe incorporated Î±-Ni(OH)₂ nanosheets with enhanced intrinsic electrocatalytic activity and long-term stability for alkaline water oxidation. Dalton Transactions, 2021, 50, 7305-7313.	3.3	11
51	Methylene Blue-Loaded Upconverting Hydrogel Nanocomposite: Potential Material for Near-Infrared Light-Triggered Photodynamic Therapy Application. ACS Omega, 2019, 4, 3169-3177.	3.5	10
52	Prudent electrochemical pretreatment to promote the OER by catalytically inert â€œIron incorporated metallic Ni nanowiresâ€•synthesized via the â€œnon-classicalâ€•growth mechanism. Nanoscale Advances, 2020, 2, 1927-1938.	4.6	10
53	Efficient Electrochemical Reconstruction of a Cobalt- and Silver-Based Precatalytic Oxalate Framework for Boosting the Alkaline Water Oxidation Performance. ACS Sustainable Chemistry and Engineering, 2022, 10, 7265-7276.	6.7	10
54	Ricinoleic Acidâ€Capped Upconverting Nanocrystals: An Ideal Capping Ligand to Render Nanocrystals Water Dispersible. ChemPlusChem, 2013, 78, 1338-1342.	2.8	9

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55	Synthesis of Hexagonalâ€Phase Eu³⁺â€Doped GdF₃ Nanocrystals above Room Temperature by Controlling the Viscosity of the Solvents. European Journal of Inorganic Chemistry, 2016, 2016, 802-807.	2.0	8
56	A Greener Approach towards Making Highly Luminescent Ln³⁺â€Doped NaYF₄ Nanoparticles with Ligandâ€Assisted Phase Control. ChemistrySelect, 2016, 1, 4785-4793.	1.5	8
57	Ce³⁺â€Sensitized Tm³⁺/Mn²⁺â€Doped NaYF₄ Colloidal Nanocrystals: Intense Cool White Light from a Phosphorâ€Coated UV LED. Chemistry - A European Journal, 2017, 23, 18134-18139.	3.3	8
58	Strong UV Emission from Colloidal Eu²⁺â€Doped BaSO₄ Nanoparticles: A Material for Enhancing the Photocatalytic Activity of Carbon Dots. ChemistrySelect, 2017, 2, 5970-5977.	1.5	8
59	Competition between two- and three-photon upconversion in Er3+-doped microcrystals. Journal of Luminescence, 2020, 227, 117542.	3.1	8
60	Cr³⁺ Ionâ€Induced Phase Stabilization of 1Tâ€™MoSe₂ with Abundant Active Sites for Efficient Hydrogen Evolution Reaction. ChemNanoMat, 2021, 7, 1063-1071.	2.8	8
61	Fe-Rich Ni_{0.06}Fe_{0.94}OOH Nanorods as Efficient Electrocatalysts for the Oxygen Evolution Reaction. ACS Applied Energy Materials, 2022, 5, 1681-1689.	5.1	8
62	A Luminescent Nanocrystal Marker for the Selective and Ultrasensitive Detection of Explosives. ChemNanoMat, 2016, 2, 805-809.	2.8	7
63	Double bond terminated Ln3+-doped LiYF4 nanocrystals with strong single band NIR emission: simple click chemistry route to make water dispersible nanocrystals with various functional groups. New Journal of Chemistry, 2016, 40, 3080-3085.	2.8	7
64	Gold incorporated hematite nanocatalyst for solvent-free CO₂ fixation under atmospheric pressure. New Journal of Chemistry, 2020, 44, 11887-11894.	2.8	7
65	Preparation of a portable calorimetry kit and one-step spectrophotometric nanomolar level detection of l-Histidine in serum and urine samples using sebacic acid capped silver nanoparticles. Journal of Science: Advanced Materials and Devices, 2021, 6, 100-107.	3.1	7
66	Synthesis of Upconverting Hydrogel Nanocomposites Using Thiolâ€Ene Click Chemistry: Template for the Formation of Dendrimerâ€Like Gold Nanoparticle Assemblies. Chemistry - A European Journal, 2015, 21, 16811-16817.	3.3	6
67	Efficient Photodegradation of Organic Pollutants By Using a Bi₂CuO₄/BiPO₄ Heterojunction Photocatalyst. ChemPhotoChem, 2019, 3, 204-210.	3.0	6
68	Classification of Transitions in Upconversion Luminescence of Lanthanides by Two-Dimensional Correlation Analysis. Journal of Physical Chemistry A, 2019, 123, 2457-2461.	2.5	6
69	Defect induced â€œsuper mopâ€•like behaviour of Eu3+-doped hierarchical Bi2SiO5 nanoparticles for improved catalytic and adsorptive behaviour. Materials Advances, 2020, 1, 2019-2032.	5.4	6
70	Ionic Liquid Functionalized Chitosan Catalyst with Optimized Hydrophilic/Hydrophobic Structural Balance for Efficient CO₂ Fixation. Asian Journal of Organic Chemistry, 2022, 11, .	2.7	6
71	Rejuvenating the Geometric Electrocatalytic OER Performance of Crystalline Co 3 O 4 by Microstructure Engineering with Sulfate. Chemistry - an Asian Journal, 2021, 16, 988-998.	3.3	5
72	Boosting Surface Reconstruction for the Oxygen Evolution Reaction: A Combined Effect of Heteroatom Incorporation and Anion Etching in Cobalt Silicate Precatalyst. ChemElectroChem, 2022, 9, .	3.4	4

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73	Prudent Choice of Ironâ€Based Metalâ€Organic Networks for Solventâ€Free CO₂ Fixation at Ambient Pressure. European Journal of Inorganic Chemistry, 2022, 2022, .	2.0	4
74	Feâ€Incorporated Ni₃S₄/NiS₂Nanocomposite as an Efficient Electrocatalyst for Alkaline Water Oxidation. ChemNanoMat, 2022, 8, .	2.8	4
75	Ligand-Tuned Energetics for the Selective Synthesis of Ni₂P and Ni₁₂P₅ Possessing Bifunctional Electrocatalytic Activity toward Hydrogen Evolution and Hydrazine Oxidation Reactions. Inorganic Chemistry, 2022, 61, 4394-4403.	4.0	3
76	Selective Detection of H₂O₂ Using paraâ€Phenylenediamine Capped Ce³⁺/Tb³⁺â€Doped NaYF₄ Microrods. ChemistrySelect, 2016, 1, 4927-4934.	1.5	1
77	Selective detection of iron (III) using salicylic acid capped Tb3+-doped CaF2 colloidal nanoparticles. Journal of the Indian Chemical Society, 2022, , 100452.	2.8	0