

# Rajamani Nagarajan

## List of Publications by Year in descending order

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92  
papers

1,355  
citations

430874

18  
h-index

395702

33  
g-index

92  
all docs

92  
docs citations

92  
times ranked

1965  
citing authors

#	ARTICLE	IF	CITATIONS
1	Polyaminocarboxylate promoted synthesis of Hafnium/ Zirconium substituted anion excess In <sub>2</sub> O <sub>3</sub> : Structure, optical and electrical conductivity properties. <i>Ceramics International</i> , 2022, 48, 6707-6715.	4.8	5
2	Boosting defects through divalent ion substitution to tailor the optical, textural, catalytic, and photocatalytic properties of Th <sup>4+</sup> -stabilized $\hat{\Gamma}$ -Bi <sub>2</sub> O <sub>3</sub> . <i>Materials Science in Semiconductor Processing</i> , 2022, 141, 106441.	4.0	1
3	Tuning the thiophilicity of Pr <sub>6</sub> O <sub>11</sub> (PrO <sub>1.833</sub> ) through Pb-substitution to append efficient adsorption characteristics. <i>Applied Surface Science</i> , 2022, 591, 153111.	6.1	3
4	Chemical pressure-induced structural, optical, and magnetic property transformations of PrAlO <sub>3</sub> . <i>Ceramics International</i> , 2022, , .	4.8	0
5	Microstructural changes caused by Ba and Pr doping in nanosized Bi <sub>2</sub> Ce <sub>2</sub> O <sub>7</sub> leading to interesting optical, magnetic, and catalytic properties. <i>CrystEngComm</i> , 2021, 23, 986-999.	2.6	1
6	KLa <sub>(0.95-x)</sub> Gd <sub>x</sub> F <sub>4</sub> :Eu <sup>3+</sup> hexagonal phase nanoparticles as luminescent probes for <i>in vitro</i> Huh-7 cancer cell imaging. <i>Dalton Transactions</i> , 2021, 50, 5197-5207.	3.3	3
7	Microspherical core-shell MoO <sub>2</sub> -graphitic C <sub>3</sub> N <sub>4</sub> heterojunction promoted integration leading to Kr $\hat{A}$ hnke pyridines and degradation of xylenol orange. <i>Materials Today Communications</i> , 2021, 26, 102117.	1.9	5
8	Oxygen ion conductivity studies of bismuth and bismuth-calcium co-doped ThO <sub>2</sub> . <i>Ceramics International</i> , 2021, 47, 21498-21508.	4.8	2
9	Iron substitution in PrAlO <sub>3</sub> perovskite leading to structural transformation and multiferroicity. <i>Ceramics International</i> , 2021, 47, 22957-22964.	4.8	2
10	Morphology controlled green synthesis of photoluminescent LaPO <sub>4</sub> : Ce <sup>3+</sup> -Tb <sup>3+</sup> nanorods. <i>Chemical Physics Letters</i> , 2021, 776, 138704.	2.6	3
11	Anatase Nanocrystals Covalently Functionalized with EDTA-diol: Interaction with Aromatic Sulfur. <i>Langmuir</i> , 2021, 37, 11142-11152.	3.5	0
12	Spin glass behavior and oxidative catalytic property of Zn <sub>2</sub> MnO <sub>4</sub> from a metathesis driven metastable precursor. <i>Journal of Physics and Chemistry of Solids</i> , 2021, 157, 110206.	4.0	3
13	Enhanced surface adsorption of Congo red dye by the metastable $\hat{\Gamma}$ -LiAlO <sub>2</sub> over LiAl <sub>2</sub> (OH) <sub>7</sub> ...2H <sub>2</sub> O. <i>Solid State Sciences</i> , 2021, 120, 106724.	3.2	4
14	Visible light photocatalysis promoted by homogenously doped (non-metals) anatase from a chelated titanium precursor. <i>Materials Science in Semiconductor Processing</i> , 2021, 134, 106039.	4.0	3
15	Optical, electrical, and catalytic (photo-and sono-) properties of indium doped $\hat{\Gamma}$ -Bi <sub>2</sub> O <sub>3</sub> with Sillenite structure. <i>Journal of Alloys and Compounds</i> , 2021, 887, 161466.	5.5	5
16	Ordered LiGa <sub>5</sub> O <sub>8</sub> loaded with redox capable Cu <sup>2+</sup> , Cr <sup>3+</sup> ions to manifest interesting optical, magnetic, and catalytic properties. <i>Journal of Materials Science</i> , 2021, 56, 20111.	3.7	4
17	Highly ordered polyaniline: synthesis, characterization and electrochemical properties. <i>Polymer Bulletin</i> , 2020, 77, 3277-3286.	3.3	10
18	Luminescence properties of Eu <sup>3+</sup> and Tb <sup>3+</sup> doped $\hat{\Gamma}$ -Bi <sub>2</sub> O <sub>3</sub> stabilized by Th <sup>4+</sup> substitution. <i>Journal of the American Ceramic Society</i> , 2020, 103, 1027-1036.	3.8	6

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19	Polyol intercalation in copper substituted zinc hydroxide acetate and evaluation of its adsorptive role towards Congo red dye. Applied Clay Science, 2020, 185, 105411.	5.2	8
20	Facile synthesis of $\text{Zn}_2\text{V}_2\text{O}_7$ and its catalytic role for the photo mediated conversion of benzyl alcohol. Materials Letters, 2020, 280, 128559.	2.6	6
21	Black $\text{TiO}_2$ -graphitic carbon nanocomposite from a single source precursor and its interaction with colored and colorless contaminants under visible radiation. Materials Research Bulletin, 2020, 132, 110983.	5.2	4
22	Effect of trivalent ions containing layered hydroxide acetate on the thermal stability and flame retardancy of poly (methyl methacrylate) composite. AIP Conference Proceedings, 2020, , .	0.4	0
23	Magnetic and photocatalytic properties of nano-sized sulfur-doped trirutile oxide, $\text{CuSb}_2\text{O}_6$ . Materials Science in Semiconductor Processing, 2020, 119, 105226.	4.0	7
24	Role of the solvent medium in the wet-chemical synthesis of $\text{CuSbS}_2$ , $\text{Cu}_3\text{SbS}_3$ , and bismuth substituted $\text{Cu}_3\text{SbS}_3$ . Journal of Chemical Sciences, 2020, 132, 1.	1.5	4
25	The emergence of bifunctional catalytic properties by the introduction of $\text{Bi}^{3+}$ in defect fluorite-structured $\text{PrO}_{1.833}$ . Dalton Transactions, 2020, 49, 12707-12715.	3.3	6
26	Energy Upconversion in Rare-Earth-Doped $\text{Ti}^{2+}$ -Based Double Halo Perovskites, $\text{A}_2\text{SnCl}_6$ (A = K, Rb, and Tl). Journal of Materials Science: Materials in Electronics, 2020, 31, 105337.	2.0	8
27	Consequences of $\text{Bi}^{3+}$ introduction for $\text{Pr}^{3+}$ in $\text{PrAlO}_3$ . Journal of Materials Science, 2020, 55, 15415-15425.	3.7	4
28	Modulating the optical and magnetic properties of geometrically frustrated $\text{ZnV}_2\text{O}_4$ by the introduction of indium (nonmagnetic ions), iron, and chromium (magnetic ions). Dalton Transactions, 2020, 49, 15810-15820.	3.3	6
29	Strong structural phase sensitive rare-earth photoluminescence color flips in $\text{KLaF}_4:\text{RE}^{3+}$ ( $\text{RE}^{3+} = \text{Eu}^{3+}$ , Tm <sup>3+</sup> , Tb <sup>3+</sup> ) phosphors. Journal of Materials Science: Materials in Electronics, 2020, 31, 105337.	3.1	15
30	Optical property evaluation of thoria doped with heavier rare-earth oxides $\text{LnO}_{1.5}$ (Ln = Y, Er, Tm, Yb, and Lu). Journal of Materials Science: Materials in Electronics, 2019, 30, 1832-1842.	3.8	6
31	Thorium doped and thorium-carbon co doped metastable $\text{Bi}^{2+}$ - $\text{Bi}_2\text{O}_3$ . Solid State Sciences, 2019, 95, 105938.	3.2	10
32	Catalytic applications of mesoporous $\text{CaBi}_2\text{O}_4$ obtained from a single source precursor. Research on Chemical Intermediates, 2019, 45, 2457-2470.	2.7	3
33	Correlating oxide ion conductivity with ionic size of dopant and defect structures in $\text{ThO}_2\text{-LnO}_{1.5}$ ( $\text{Ln} = \text{Y}, \text{La}$ and $\text{Gd}$ ) prepared by modified epoxide gel method. Solid State Ionics, 2019, 329, 67-73.	2.7	3
34	Color-Tunable Upconversion in $\text{Er}^{3+}/\text{Yb}^{3+}$ -Codoped $\text{KLaF}_4$ Nanophosphors by Incorporation of $\text{Tm}^{3+}$ Ions for Biological Applications. ACS Omega, 2019, 4, 2275-2282.	3.5	17
35	Enhancement in Photocatalytic Activity of $\text{SrTiO}_3$ by Tailoring Particle Size and Defects. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900294.	1.8	17
36	Rapid and One-Step Transformation of $\text{LiAlH}_4$ to Inorganic and Organic Anion Intercalated Li-Al Layered Double Hydroxides. European Journal of Inorganic Chemistry, 2019, 2019, 2412-2418.	2.0	8

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37	Luminescent properties of K <sub>2</sub> SbF <sub>5</sub> : Ln (Ln = Eu <sup>3+</sup> , Tb <sup>3+</sup> , Er <sup>3+</sup> ) obtained by a facile room temperature mechanochemical synthesis. <i>Journal of Luminescence</i> , 2019, 210, 392-396.	3.1	9
38	Consequences of lead incorporation in fluorite structured thoria. <i>Ceramics International</i> , 2019, 45, 11709-11716.	4.8	5
39	Implications of including a magnetic ion (Cr <sup>3+</sup> and Fe <sup>3+</sup> ) at the vanadium site in a geometrically frustrated spinel MgV <sub>2</sub> O <sub>4</sub> : magnetic and catalytic properties. <i>Dalton Transactions</i> , 2019, 48, 16661-16670.	3.3	7
40	Influencing Optical and Magnetic Properties of NiCr <sub>2</sub> O <sub>4</sub> by the Incorporation of Fe(III) for Cr(III) Following Epoxide Gel Synthesis. <i>Journal of Electronic Materials</i> , 2019, 48, 1139-1146.	2.2	3
41	Fine tuning bifunctional properties of Y <sub>0.5</sub> Gd <sub>0.5</sub> BO <sub>3</sub> by doping with Ce <sup>3+</sup> and co-doping with Li <sup>+</sup> , Ca <sup>2+</sup> and Al <sup>3+</sup> following an epoxide mediated gel approach. <i>Materials Today Chemistry</i> , 2018, 7, 15-24.	3.5	6
42	Mechanochemical transformation of ZnO <sub>2</sub> to highly defective ZnO. <i>Materials Letters</i> , 2018, 212, 178-181.	2.6	9
43	Emergence of defect fluorite structure in nano-sized thoria through doping with some divalent transition-metal ions. <i>Journal of the American Ceramic Society</i> , 2018, 101, 562-568.	3.8	4
44	Metastable Bi <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> with Pyrochlore-like Structure: Stabilization, Oxygen Ion Conductivity, and Catalytic Properties. <i>Inorganic Chemistry</i> , 2018, 57, 13667-13678.	4.0	46
45	Double Perovskite K <sub>3</sub> InF <sub>6</sub> as an Upconversion Phosphor and Its Structural Transformation Through Rubidium Substitution. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 4826-4833.	2.0	7
46	Interplay between Defects and Cation Nonstoichiometry in Lithium-Substituted CdGa <sub>2</sub> O <sub>4</sub> Leading to Multifunctional Behavior. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22094-22105.	3.1	7
47	Efficient Use of a Polyamine Carboxylate Ligand to Probe the Extent of Incorporation of Stereochemically Active Bi <sup>3+</sup> in ThO <sub>2</sub> . <i>ChemistrySelect</i> , 2018, 3, 5005-5012.	1.5	3
48	Critical role of annealing atmosphere on solid solution formation between PrO <sub>2</sub> ·xH <sub>2</sub> O and ThO <sub>2</sub> . <i>Solid State Sciences</i> , 2018, 84, 1-7.	3.2	3
49	Evaluation of solid solution formation between ThO <sub>2</sub> and x-Bi <sub>2</sub> O <sub>3</sub> by molecular precursor route. <i>Materials Research Bulletin</i> , 2018, 107, 66-73.	5.2	8
50	Catalytic Application of Oxygen Vacancies Induced by Bi <sup>3+</sup> Incorporation in ThO <sub>2</sub> Samples Obtained by Solution Combustion Synthesis. <i>ACS Omega</i> , 2018, 3, 7171-7181.	3.5	26
51	Site preference for luminescent activator ions in doped fluoroperovskite RbZnF <sub>3</sub> . <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 201, 339-345.	3.9	4
52	Correlating the Influence of Two Magnetic Ions at the A-Site with the Electronic, Magnetic, and Catalytic Properties in Gd <sub>1-x</sub> Dy <sub>x</sub> CrO <sub>3</sub> . <i>ACS Omega</i> , 2017, 2, 2657-2664.	3.5	16
53	Wet-chemical synthesis, structural characterization and optical properties of rare-earth doped halo perovskite K <sub>3</sub> GaF <sub>6</sub> . <i>Journal of Fluorine Chemistry</i> , 2017, 200, 1-7.	1.7	16
54	Ammonium fluoride mediated mechano chemical synthesis of A <sub>2</sub> PdF <sub>6</sub> (A = K, Rb) along with their catalytic role in environmental remediation. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 5460-5468.	6.7	5

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55	Fabrication and Microhardness Analysis of MWCNT/MnO <sub>2</sub> Nanocomposite. Journal of Materials, 2016, 2016, 1-10.	0.1	9
56	Rapid Synthesis of Mesoporous, Nano-Sized MgCr <sub>2</sub> O <sub>4</sub> and Its Catalytic Properties. Journal of the American Ceramic Society, 2016, 99, 814-818.	3.8	25
57	Sol-Gel Synthesis of High-Purity Actinide Oxide ThO <sub>2</sub> and Its Solid Solutions with Technologically Important Tin and Zinc Ions. Inorganic Chemistry, 2016, 55, 12798-12806.	4.0	24
58	A smart switchable module for the detection of multiple ions via turn-on dual-optical readout and their cell imaging studies. Dalton Transactions, 2016, 45, 8272-8277.	3.3	8
59	Magnetically separable, bifunctional catalyst MgFe <sub>2</sub> O <sub>4</sub> obtained by epoxide mediated synthesis. Advanced Powder Technology, 2016, 27, 1251-1256.	4.1	20
60	An ethylene glycol intercalated monometallic layered double hydroxide based on iron as an efficient bifunctional catalyst. Dalton Transactions, 2016, 45, 17508-17520.	3.3	17
61	Effect of uniaxial pressure on the Raman spectra of fluoro perovskites containing manganese with sodium or potassium. Spectroscopy Letters, 2016, 49, 444-446.	1.0	0
62	Determination of solubility limit of Sn <sup>4+</sup> in fluorite structured terbium with simultaneous evaluation of photocatalytic function. Dalton Transactions, 2016, 45, 11191-11197.	3.3	1
63	Facile synthesis and optical properties of pure and Ni <sup>2+</sup> , Co <sup>2+</sup> , Bi <sup>3+</sup> , Sb <sup>3+</sup> substituted Cu <sub>3</sub> SnS <sub>4</sub> . RSC Advances, 2015, 5, 43202-43208.	3.6	17
64	A sequential logic gate-based smart probe for selective monitoring of Cu <sup>2+</sup> , Fe <sup>3+</sup> and CN <sup>-</sup> /F <sup>-</sup> via differential analyses. Dalton Transactions, 2015, 44, 19786-19790.	3.3	15
65	Topochemical Oxidation of Perovskite KCoF <sub>3</sub> to a K <sub>2</sub> PtCl <sub>6</sub> Structure-Type Oxyfluoride. Inorganic Chemistry, 2015, 54, 10105-10107.	4.0	7
66	A light/pH/multiple ion-driven smart switchable module for computing sequential logic operations via a resettable dual-optical readout. Journal of Materials Chemistry C, 2015, 3, 12123-12129.	5.5	15
67	Reducing Strength Prevailing at Root Surface of Plants Promotes Reduction of Ag <sup>+</sup> and Generation of Ag <sub>0</sub> /Ag <sub>2</sub> O Nanoparticles Exogenously in Aqueous Phase. PLoS ONE, 2014, 9, e106715.	2.5	26
68	Soft chemical synthesis of Ag <sub>3</sub> SbS <sub>3</sub> with efficient and recyclable visible light photocatalytic properties. Materials Research Bulletin, 2014, 60, 872-875.	5.2	15
69	Anion (Fluoride)-Doped Ceria Nanocrystals: Synthesis, Characterization, and Its Catalytic Application to Oxidative Coupling of Benzylamines. Inorganic Chemistry, 2014, 53, 2030-2039.	4.0	55
70	A simple one pot synthesis of cubic Cu <sub>5</sub> FeS <sub>4</sub> . RSC Advances, 2014, 4, 52633-52636.	3.6	15
71	Root system of live plants is a powerful resource for the green synthesis of Au-nanoparticles. RSC Advances, 2014, 4, 7361.	3.6	20
72	Mechanochemical synthesis of layered perovskite structured fluorides A <sub>2</sub> MF <sub>4</sub> (A=K, Rb; M=Co, Cu, Mg) and their transformation to AMF <sub>3</sub> phase by mechanical activation. Journal of Fluorine Chemistry, 2014, 165, 43-48.	1.7	4

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73	Novel Fluorite Structured Superparamagnetic RbGdF <sub>4</sub> Nanocrystals as Versatile Upconversion Host. Inorganic Chemistry, 2014, 53, 10257-10265.	4.0	15
74	Wurtzite CuInS <sub>2</sub> : solution based one pot direct synthesis and its doping studies with non-magnetic Ga <sup>3+</sup> and magnetic Fe <sup>3+</sup> ions. RSC Advances, 2013, 3, 18863.	3.6	28
75	Optical properties of Tb <sup>3+</sup> doped KLaF <sub>4</sub> in cubic and hexagonal symmetries. Optical Materials, 2013, 36, 396-401.	3.6	23
76	Raman Spectroscopic Analysis of Perovskite-Structured Alkali Metal Fluorides Containing Nickel and Copper Ions. Spectroscopy Letters, 2012, 45, 237-239.	1.0	2
77	Hexagonally Ordered KLaF <sub>4</sub> Host: Phase-Controlled Synthesis and Luminescence Studies. Inorganic Chemistry, 2012, 51, 12748-12754.	4.0	46
78	Electrophoretically fabricated core-shell CNT-DNA biowires for biosensing. Journal of Materials Chemistry, 2012, 22, 2727-2732.	6.7	12
79	Application of KZnF <sub>3</sub> as a Single Source Precursor for the Synthesis of Nanocrystals of ZnO <sub>2</sub> :F and ZnO:F; Synthesis, Characterization, Optical, and Photocatalytic Properties. Journal of Physical Chemistry C, 2011, 115, 10131-10139.	3.1	27
80	Optical and Photocatalytic Properties of Heavily F <sup>-</sup> -Doped SnO <sub>2</sub> Nanocrystals by a Novel Single-Source Precursor Approach. Inorganic Chemistry, 2011, 50, 5637-5645.	4.0	130
81	Zirconia grafted carbon nanotubes based biosensor for <i>M. Tuberculosis</i> detection. Applied Physics Letters, 2011, 99, .	3.3	41
82	Synthesis of Cu <sub>1.8</sub> S and CuS from Copper-Thiourea Containing Precursors; Anionic (Cl <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> ) Influence on the Product Stoichiometry. Inorganic Chemistry, 2011, 50, 3065-3070.	4.0	118
83	Synthesis of high surface area transitional alumina from Al(OPh) <sub>3</sub> . Journal of Sol-Gel Science and Technology, 2011, 57, 12-15.	2.4	6
84	Synthesis and optical characterization of strong red light emitting KLaF <sub>4</sub> :Eu <sup>3+</sup> nanophosphors. Chemical Physics Letters, 2011, 508, 117-120.	2.6	68
85	Effect of phenyl group on the structure and formation of transitional alumina from Al(OPh) <sub>3</sub> . Journal of Sol-Gel Science and Technology, 2010, 53, 293-299.	2.4	9
86	KLaF <sub>4</sub> :Er an efficient upconversion phosphor. Optical Materials, 2010, 33, 42-47.	3.6	38
87	Room temperature optical absorption and intrinsic photoluminescence in KZnF <sub>3</sub> . Chemical Physics Letters, 2010, 494, 284-286.	2.6	12
88	Reactivity of Copper(I) Halides CuCl, CuI with Double Alkoxides <i>M</i> Al(OPr) <sub>4</sub> ( <i>M</i> = Na, K). Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2010, 636, 2394-2397.	1.2	2
89	Zirconia based nucleic acid sensor for <i>Mycobacterium tuberculosis</i> detection. Applied Physics Letters, 2010, 96, .	3.3	70
90	Synthesis of CuAl <sub>2</sub> (acac) <sub>4</sub> (O <i>i</i> Pr) <sub>4</sub> , its hydrolysis and formation of bulk CuAl <sub>2</sub> O <sub>4</sub> from the hydrolyzed gels; a case study of molecules to materials. Dalton Transactions, 2010, 39, 6056.	3.3	19

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91	Comments on "Visible-Light-Induced Photocatalyst Based on Nickel Titanate Nanoparticles"; Industrial & Engineering Chemistry Research, 2010, 49, 1995-1996.	3.7	6
92	Synthesis of nanocrystalline mixed metal fluorides in nonaqueous medium. Bulletin of Materials Science, 2009, 32, 583-587.	1.7	14