

# Ramasamy Thangavelu Rajendra Kuma

## List of Publications by Year in descending order

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79  
papers

2,780  
citations

147801

31  
h-index

189892

50  
g-index

79  
all docs

79  
docs citations

79  
times ranked

3981  
citing authors

#	ARTICLE	IF	CITATIONS
1	Adsorption behaviour of reduced graphene oxide towards cationic and anionic dyes: Co-action of electrostatic and $\pi$ - $\pi$ interactions. <i>Materials Chemistry and Physics</i> , 2017, 194, 243-252.	4.0	198
2	Polyaniline Anchored MWCNTs on Fabric for High Performance Wearable Ammonia Sensor. <i>ACS Sensors</i> , 2018, 3, 1822-1830.	7.8	153
3	Li doped and undoped ZnO nanocrystalline thin films: a comparative study of structural and optical properties. <i>Journal of Sol-Gel Science and Technology</i> , 2007, 43, 171-177.	2.4	132
4	Guiding of highly charged ions by highly ordered SiO <sub>2</sub> nanocapillaries. <i>Physical Review A</i> , 2006, 73, .	2.5	118
5	Simple Approach to Superamphiphobic Overhanging Silicon Nanostructures. <i>Journal of Physical Chemistry C</i> , 2010, 114, 2936-2940.	3.1	105
6	Cobalt-doped cerium oxide nanoparticles: Enhanced photocatalytic activity under UV and visible light irradiation. <i>Materials Science in Semiconductor Processing</i> , 2014, 26, 218-224.	4.0	98
7	Enhanced Room-Temperature Ferromagnetism on Co-Doped CeO <sub>2</sub> Nanoparticles: Mechanism and Electronic and Optical Properties. <i>Journal of Physical Chemistry C</i> , 2014, 118, 27039-27047.	3.1	94
8	Effective shell wall thickness of vertically aligned ZnO-ZnS core-shell nanorod arrays on visible photocatalytic and photo sensing properties. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 128-139.	20.2	91
9	Polyvinyl alcohol wrapped multiwall carbon nanotube (MWCNTs) network on fabrics for wearable room temperature ethanol sensor. <i>Sensors and Actuators B: Chemical</i> , 2018, 261, 297-306.	7.8	83
10	Glucose oxidase immobilized amine terminated multiwall carbon nanotubes/reduced graphene oxide/polyaniline/gold nanoparticles modified screen-printed carbon electrode for highly sensitive amperometric glucose detection. <i>Materials Science and Engineering C</i> , 2019, 105, 110075.	7.3	74
11	In Vitro Bacterial Cytotoxicity of CNTs: Reactive Oxygen Species Mediate Cell Damage Edges over Direct Physical Puncturing. <i>Langmuir</i> , 2014, 30, 592-601.	3.5	69
12	Impact of Oxygen Functional Groups on Reduced Graphene Oxide-Based Sensors for Ammonia and Toluene Detection at Room Temperature. <i>ACS Omega</i> , 2018, 3, 4105-4112.	3.5	62
13	Evolution of Visible Photocatalytic Properties of Cu-Doped CeO <sub>2</sub> Nanoparticles: Role of Cu <sup>2+</sup> -Mediated Oxygen Vacancies and the Mixed-Valence States of Ce Ions. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 8536-8546.	6.7	55
14	Facile construction of vertically aligned ZnO nanorod/PEDOT:PSS hybrid heterojunction-based ultraviolet light sensors: efficient performance and mechanism. <i>Nanotechnology</i> , 2016, 27, 095304.	2.6	52
15	Structural properties of V <sub>2</sub> O <sub>5</sub> thin films prepared by vacuum evaporation. <i>Materials Science in Semiconductor Processing</i> , 2003, 6, 543-546.	4.0	51
16	Nitrogen-Implanted ZnO Nanorod Arrays for Visible Light Photocatalytic Degradation of a Pharmaceutical Drug Acetaminophen. <i>ACS Omega</i> , 2019, 4, 11973-11979.	3.5	51
17	Regeneration of an efficient, solar active hierarchical ZnO flower photocatalyst for repeatable usage: controlled desorption of poisoned species from active catalytic sites. <i>RSC Advances</i> , 2017, 7, 4983-4992.	3.6	50
18	Room temperature deposited vanadium oxide thin films for uncooled infrared detectors. <i>Materials Research Bulletin</i> , 2003, 38, 1235-1240.	5.2	49

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19	Optical constants of DC magnetron sputtered titanium dioxide thin films measured by spectroscopic ellipsometry. <i>Crystal Research and Technology</i> , 2003, 38, 773-778.	1.3	49
20	Control of ZnO nanorod array density by Zn supersaturation variation and effects on field emission. <i>Nanotechnology</i> , 2007, 18, 215704.	2.6	48
21	Structural characterization of DC magnetron-sputtered TiO <sub>2</sub> thin films using XRD and Raman scattering studies. <i>Materials Science in Semiconductor Processing</i> , 2003, 6, 547-550.	4.0	44
22	Study of a pulsed laser deposited vanadium oxide based microbolometer array. <i>Smart Materials and Structures</i> , 2003, 12, 188-192.	3.5	43
23	Synthesis and Characterization of Reduced Graphene Oxide. <i>Advanced Materials Research</i> , 0, 678, 56-60.	0.3	42
24	Magnetite Nanoparticle Decorated Reduced Graphene Oxide Composite as an Efficient and Recoverable Adsorbent for the Removal of Cesium and Strontium Ions. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 1225-1232.	3.7	42
25	Multiwalled Carbon Nanotube Oxygen Sensor: Enhanced Oxygen Sensitivity at Room Temperature and Mechanism of Sensing. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 23857-23865.	8.0	40
26	Electro Catalytic Properties of $\beta$ -Fe <sub>2</sub> O <sub>3</sub> and $\alpha$ -FeOOH Nanoparticles: Role of Polymorphs on Enzyme Free H <sub>2</sub> O <sub>2</sub> Sensing. <i>Electroanalysis</i> , 2017, 29, 1481-1489.	2.9	40
27	Highly sensitive amperometric detection of glutamate by glutamic oxidase immobilized Pt nanoparticle decorated multiwalled carbon nanotubes(MWCNTs)/polypyrrole composite. <i>Biosensors and Bioelectronics</i> , 2019, 130, 307-314.	10.1	39
28	Influence of deposition temperature on the growth of vacuum evaporated V <sub>2</sub> O <sub>5</sub> thin films. <i>Materials Letters</i> , 2003, 57, 3820-3825.	2.6	34
29	Fabrication of silicon dioxide nanocapillary arrays for guiding highly charged ions. <i>Nanotechnology</i> , 2005, 16, 1697-1700.	2.6	34
30	Mn-Ni binary metal oxide for high-performance supercapacitor and electro-catalyst for oxygen evolution reaction. <i>Ceramics International</i> , 2020, 46, 28006-28012.	4.8	34
31	Alignment, Morphology and Defect Control of Vertically Aligned ZnO Nanorod Array: Competition between Surfactant and Stabilizer Roles of the Amine Species and Its Photocatalytic Properties. <i>Crystal Growth and Design</i> , 2014, 14, 2873-2879.	3.0	33
32	Visible-light-driven SnO <sub>2</sub> /TiO <sub>2</sub> nanotube nanocomposite for textile effluent degradation. <i>RSC Advances</i> , 2015, 5, 20424-20431.	3.6	33
33	Engineering Silicon to Porous Silicon and Silicon Nanowires by Metal-Assisted Chemical Etching: Role of Ag Size and Electron-Scavenging Rate on Morphology Control and Mechanism. <i>ACS Omega</i> , 2017, 2, 4540-4547.	3.5	33
34	Optoelectronic properties of Zn <sub>0.52</sub> Se <sub>0.48</sub> /Si Schottky diodes. <i>Solid-State Electronics</i> , 2004, 48, 2219-2223.	1.4	31
35	Ce <sub>2</sub> S <sub>3</sub> decorated ZnO-ZnS core-shell nanorod arrays: Efficient solar-driven photocatalytic properties. <i>Catalysis Today</i> , 2016, 278, 271-279.	4.4	31
36	Influence of Fe <sub>3</sub> O <sub>4</sub> nanoparticles decoration on dye adsorption and magnetic separation properties of Fe <sub>3</sub> O <sub>4</sub> /rGO nanocomposites. <i>Separation Science and Technology</i> , 2018, 53, 2159-2169.	2.5	30

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37	Development of the PANI/MWCNT Nanocomposite-Based Fluorescent Sensor for Selective Detection of Aqueous Ammonia. ACS Omega, 2020, 5, 8414-8422.	3.5	30
38	Synthesis and electrocatalytic properties of manganese dioxide for non-enzymatic hydrogen peroxide sensing. Materials Science in Semiconductor Processing, 2015, 31, 709-714.	4.0	28
39	NiMoO <sub>4</sub> /reduced graphene oxide composite as an electrode material for hybrid supercapacitor. Materials Science in Semiconductor Processing, 2021, 135, 106078.	4.0	28
40	Nanobits: customizable scanning probe tips. Nanotechnology, 2009, 20, 395703.	2.6	27
41	MWCNT enabled smart textiles based flexible and wearable sensor for human motion and humidity monitoring. Cellulose, 2021, 28, 2505-2520.	4.9	26
42	Photocatalytic degradation of endocrine disruptor Bisphenol-A in the presence of prepared CexZn1-xO nanocomposites under irradiation of sunlight. Journal of Environmental Sciences, 2014, 26, 2362-2368.	6.1	23
43	Robust water repellent ZnO nanorod array by Swift Heavy Ion Irradiation: Effect of Electronic Excitation Induced Local Chemical State Modification. Scientific Reports, 2017, 7, 3251.	3.3	23
44	Promotional Effect of Cu <sub>2</sub> S@ZnS Nanograins as a Shell Layer on ZnO Nanorod Arrays for Boosting Visible Light Photocatalytic H <sub>2</sub> Evolution. Journal of Physical Chemistry C, 2020, 124, 3610-3620.	3.1	23
45	Effects of the crystallite mosaic spread on integrated peak intensities in $2\theta$ measurements of highly crystallographically textured ZnO thin films. Journal Physics D: Applied Physics, 2011, 44, 375401.	2.8	20
46	Enhanced vacuum sensing performance of multiwalled carbon nanotubes: role of defects and carboxyl functionalization. RSC Advances, 2015, 5, 20479-20485.	3.6	20
47	Birnessite MnO <sub>2</sub> decorated MWCNTs composite as a nonenzymatic hydrogen peroxide sensor. Chemical Physics Letters, 2019, 731, 136612.	2.6	18
48	MWCNT Based Non-Enzymatic H <sub>2</sub> O <sub>2</sub> Sensor: Influence of Amine Functionalization on the Electrochemical H <sub>2</sub> O <sub>2</sub> Sensing. Journal of the Electrochemical Society, 2016, 163, B627-B632.	2.9	16
49	Formation of ordered pore arrays at the nanoscale by electrochemical etching of n-type silicon. Superlattices and Microstructures, 2004, 36, 245-253.	3.1	14
50	On the suitability of carbon nanotube forests as non-stick surfaces for nanomanipulation. Soft Matter, 2008, 4, 392.	2.7	14
51	Enhancement of magnetostrictive properties of Galfenol thin films. Journal of Magnetism and Magnetic Materials, 2018, 451, 300-304.	2.3	14
52	MoS <sub>2</sub> Nanosheets Decorated Multiwalled Carbon Nanotube Composite Electrocatalyst for 4-Nitrophenol Detection and Hydrogen Evolution Reaction. Electroanalysis, 2020, 32, 2571-2580.	2.9	14
53	Characteristics of amorphous VO <sub>2</sub> thin films prepared by pulsed laser deposition. Journal of Materials Science, 2004, 39, 2869-2871.	3.7	13
54	Phase evolution and magnetic properties of DC sputtered Fe-Ga (Galfenol) thin films with growth temperatures. Journal of Alloys and Compounds, 2017, 704, 420-424.	5.5	12

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55	A radially controlled ZnS interlayer on ultra-long ZnO@Gd <sub>2</sub> S <sub>3</sub> core-shell nanorod arrays for promoting the visible photocatalytic degradation of antibiotics. <i>Nanoscale</i> , 2020, 12, 14047-14060.	5.6	11
56	Electrochemical Non-enzymatic sensor based on Co-H <sub>2</sub> ABDC Metal Organic Framework for detection of glyphosate. <i>Chemical Physics Letters</i> , 2022, 795, 139481.	2.6	10
57	Determination of Thermal Parameters of Vanadium Oxide Uncooled Microbolometer Infrared Detector. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 2003, 24, 327-334.	0.6	9
58	Recent Progress on the Synthesis and Applications of Carbon Based Nanostructures. <i>Recent Patents on Nanotechnology</i> , 2012, 6, 99-104.	1.3	9
59	Control of interconnected ZnO nanowires to vertically aligned ZnO nanorod arrays by tailoring the underlying spray deposited ZnO seed layer. <i>Materials Research Bulletin</i> , 2014, 60, 584-588.	5.2	9
60	<i>In situ</i> attachment and its hydrophobicity of size- and shape-controlled silver nanoparticles on fabric surface for bioapplication. <i>Inorganic and Nano-Metal Chemistry</i> , 2017, 47, 1196-1203.	1.6	9
61	Fabrication and Electrowetting Properties of Poly Si Nanostructure Based Superhydrophobic Platform. <i>Plasma Chemistry and Plasma Processing</i> , 2013, 33, 807-816.	2.4	8
62	Characterization of tannic acid- and gallic acid-functionalized single- and multiwalled carbon nanotubes and an <i>in vitro</i> evaluation of their antioxidant properties. <i>Journal of Taibah University Medical Sciences</i> , 2016, 11, 469-477.	0.9	8
63	Solvothermal synthesis of Fe <sub>3</sub> S <sub>4</sub> @graphene composite electrode materials for energy storage. <i>Carbon Letters</i> , 2020, 30, 667-673.	5.9	8
64	Guiding of highly charged ions through insulating nanocapillaries. <i>Canadian Journal of Physics</i> , 2008, 86, 327-330.	1.1	7
65	Unexpected production of singlet oxygen by sub-micron cerium oxide particles and enhanced photocatalytic activity against methyl orange. <i>RSC Advances</i> , 2015, 5, 56982-56986.	3.6	7
66	Magnetite@Decorated Reduced Graphene Oxide: A Study of Multifunctional Antibacterial and Removal of Lead Ion Properties for Water Disinfection Applications. <i>Advanced Engineering Materials</i> , 2020, 22, 2000395.	3.5	7
67	Titanium-Based Metal-Organic Framework/TiO <sub>2</sub> Composite for Degradation of Dyes Under Solar Light Irradiation. <i>Journal of Electronic Materials</i> , 2021, 50, 2565-2575.	2.2	7
68	Growth and Magnetic Properties of RF Sputtered Fe-Ga Thin Films. <i>Materials Research</i> , 2015, 18, 946-952.	1.3	6
69	One step <i>in situ</i> and <i>in vacuo</i> Ag nanostructured thin films for ultrahigh sensitive SERS Detection. <i>Materials Science and Engineering C</i> , 2016, 68, 831-836.	7.3	5
70	Synthesis and Antibacterial Studies of Nano Structured Ag Thin Films. <i>Advanced Materials Research</i> , 0, 678, 291-296.	0.3	4
71	ZnO microrods to nanowalled microtubes: optimization using simple fluorescence microscopy and enhanced photocatalytic properties. <i>Journal of Microscopy</i> , 2013, 252, 217-225.	1.8	4
72	Ultrasonic-assisted fabrication of superhydrophobic ZnO nanowall films. <i>Bulletin of Materials Science</i> , 2017, 40, 505-511.	1.7	4

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73	Plasmonic effect and charge separation-induced photocatalytic degradation of organic dyes utilizing Au/ZnFe <sub>2</sub> O <sub>4</sub> @rGO ternary composite. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	4
74	Visible light-assisted degradation of 4-nitrophenol and methylene blue using low energy carbon ion-implanted ZnO nanorod arrays: Effect on mechanistic insights and stability. Chemosphere, 2022, 287, 132283.	8.2	4
75	Synthesis and Catalytic Properties of Al and Cu doped ZnO Thin Films on the Photolytic Degradation of Methylene Blue. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2014, 44, 1316-1322.	0.6	3
76	Field and temperature dependent electron transport properties of random network single walled and multi walled carbon nanotubes. Materials Research Express, 2014, 1, 035004.	1.6	3
77	Controlled fabrication and electrowetting properties of silicon nanostructures. Journal of Adhesion Science and Technology, 2017, 31, 31-40.	2.6	3
78	Enhanced visible-light degradation of organic dyes via porous g-C <sub>3</sub> N <sub>4</sub> . Phosphorus, Sulfur and Silicon and the Related Elements, 2022, 197, 200-208.	1.6	3
79	Facile construction of vertically aligned EuS-ZnO hybrid core shell nanorod arrays for visible light driven photocatalytic properties. AIP Conference Proceedings, 2015, , .	0.4	0