

Rajesh K Singh

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

82

papers

3,841

citations

34

h-index

61

g-index

87

ext. papers

4,995

ext. citations

7.1

avg, IF

6.02

L-index

#	Paper	IF	Citations
82	Graphene oxide: strategies for synthesis, reduction and frontier applications. <i>RSC Advances</i> , 2016 , 6, 64993-65011	3.7	297
81	Recent progress in the synthesis of graphene and derived materials for next generation electrodes of high performance lithium ion batteries. <i>Progress in Energy and Combustion Science</i> , 2019 , 75, 100786	33.6	247
80	Heteroatom doped graphene engineering for energy storage and conversion. <i>Materials Today</i> , 2020 , 39, 47-65	21.8	214
79	Self-Assembled and One-Step Synthesis of Interconnected 3D Network of FeO/Reduced Graphene Oxide Nanosheets Hybrid for High-Performance Supercapacitor Electrode. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 8880-8890	9.5	213
78	Recent advances in the synthesis and modification of carbon-based 2D materials for application in energy conversion and storage. <i>Progress in Energy and Combustion Science</i> , 2018 , 67, 115-157	33.6	186
77	Laser-assisted synthesis, reduction and micro-patterning of graphene: Recent progress and applications. <i>Coordination Chemistry Reviews</i> , 2017 , 342, 34-79	23.2	174
76	Graphene oxide: An efficient material and recent approach for biotechnological and biomedical applications. <i>Materials Science and Engineering C</i> , 2018 , 86, 173-197	8.3	163
75	A review on synthesis of graphene, h-BN and MoS ₂ for energy storage applications: Recent progress and perspectives. <i>Nano Research</i> , 2019 , 12, 2655-2694	10	156
74	Natural and waste hydrocarbon precursors for the synthesis of carbon based nanomaterials: Graphene and CNTs. <i>Renewable and Sustainable Energy Reviews</i> , 2016 , 58, 976-1006	16.2	139
73	Self-Assembled Hierarchical Formation of Conjugated 3D Cobalt Oxide Nanobead-CNT-Graphene Nanostructure Using Microwaves for High-Performance Supercapacitor Electrode. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 15042-51	9.5	133
72	Progress in microwave-assisted synthesis of quantum dots (graphene/carbon/semiconducting) for bioapplications: a review. <i>Materials Today Chemistry</i> , 2019 , 12, 282-314	6.2	85
71	Structural and up-conversion properties of Er ³⁺ and Yb ³⁺ co-doped Y ₂ Ti ₂ O ₇ phosphors. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 3480-9	3.6	77
70	Microwave-assisted synthesis of void-induced graphene-wrapped nickel oxide hybrids for supercapacitor applications. <i>RSC Advances</i> , 2016 , 6, 26612-26620	3.7	74
69	Freestanding 3D Graphene-Nickel Encapsulated Nitrogen-Rich Aligned Bamboo Like Carbon Nanotubes for High-Performance Supercapacitors with Robust Cycle Stability. <i>Advanced Materials Interfaces</i> , 2015 , 2, 1500191	4.6	74
68	Fabrication of interdigitated micro-supercapacitor devices by direct laser writing onto ultra-thin, flexible and free-standing graphite oxide films. <i>RSC Advances</i> , 2016 , 6, 84769-84776	3.7	67
67	Fabrication and electrochemical evaluation of micro-supercapacitors prepared by direct laser writing on free-standing graphite oxide paper. <i>Energy</i> , 2019 , 179, 676-684	7.9	63
66	Recent progress on carbon-based composite materials for microwave electromagnetic interference shielding. <i>Carbon</i> , 2021 , 177, 304-331	10.4	62

65	Direct laser writing of micro-supercapacitors on thick graphite oxide films and their electrochemical properties in different liquid inorganic electrolytes. <i>Journal of Colloid and Interface Science</i> , 2017 , 507, 271-278	9.3	61
64	Self-assembled nanostructures of 3D hierarchical faceted-iron oxide containing vertical carbon nanotubes on reduced graphene oxide hybrids for enhanced electromagnetic interface shielding. <i>Composites Part B: Engineering</i> , 2019 , 168, 66-76	10	61
63	Rapid and controllable synthesis of Fe ₃ O ₄ octahedral nanocrystals embedded-reduced graphene oxide using microwave irradiation for high performance lithium-ion batteries. <i>Electrochimica Acta</i> , 2018 , 281, 78-87	6.7	61
62	Microwave-assisted synthesis of palladium nanoparticles intercalated nitrogen doped reduced graphene oxide and their electrocatalytic activity for direct-ethanol fuel cells. <i>Journal of Colloid and Interface Science</i> , 2018 , 515, 160-171	9.3	57
61	Controlled density of defects assisted perforated structure in reduced graphene oxide nanosheets-palladium hybrids for enhanced ethanol electro-oxidation. <i>Carbon</i> , 2017 , 117, 137-146	10.4	51
60	Microwave-assisted synthesis and deposition of a thin ZnO layer on microwave-exfoliated graphene: optical and electrochemical evaluations. <i>RSC Advances</i> , 2015 , 5, 67988-67995	3.7	47
59	Synthesis of self-assembled and hierarchical palladium-CNTs-reduced graphene oxide composites for enhanced field emission properties. <i>Materials and Design</i> , 2017 , 122, 110-117	8.1	46
58	Catalyst-free synthesis of a three-dimensional nanoworm-like gallium oxide-graphene nanosheet hybrid structure with enhanced optical properties. <i>RSC Advances</i> , 2016 , 6, 17669-17677	3.7	46
57	Pressure-dependent synthesis of high-quality few-layer graphene by plasma-enhanced arc discharge and their thermal stability. <i>Journal of Nanoparticle Research</i> , 2013 , 15, 1	2.3	45
56	Simultaneous reduction and covalent grafting of polythiophene on graphene oxide sheets for excellent capacitance retention. <i>RSC Advances</i> , 2016 , 6, 52945-52949	3.7	42
55	Synthesis, characterization and optical properties of graphene sheets-ZnO multipod nanocomposites. <i>Journal of Alloys and Compounds</i> , 2012 , 526, 129-134	5.7	42
54	Hydrothermal synthesis of a uniformly dispersed hybrid graphene-TiO ₂ nanostructure for optical and enhanced electrochemical applications. <i>RSC Advances</i> , 2015 , 5, 7112-7120	3.7	41
53	Microwave heating time dependent synthesis of various dimensional graphene oxide supported hierarchical ZnO nanostructures and its photoluminescence studies. <i>Materials and Design</i> , 2016 , 111, 291-300	8.1	41
52	Nitrogen-Sulfur Co-Doped Reduced Graphene Oxide-Nickel Oxide Nanoparticle Composites for Electromagnetic Interference Shielding. <i>ACS Applied Nano Materials</i> , 2019 , 2, 4626-4636	5.6	38
51	Effect of different sized CeO ₂ nano particles on decomposition and hydrogen absorption kinetics of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 6221-6225	6.7	37
50	Facile and single step synthesis of three dimensional reduced graphene oxide-NiCoO ₂ composite using microwave for enhanced electron field emission properties. <i>Applied Surface Science</i> , 2017 , 416, 259-265	6.7	36
49	Hydrogen energy in changing environmental scenario: Indian context. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7358-7367	6.7	35
48	Effect of admixing different carbon structural variants on the decomposition and hydrogen sorption kinetics of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 4131-4137	6.7	29

47	Investigations on hydrogenation behaviour of CNT admixed Mg ₂ Ni. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 9379-9384	6.7	28
46	Growth analysis and high-yield synthesis of aligned-stacked branched nitrogen-doped carbon nanotubes using sesame oil as a natural botanical hydrocarbon precursor. <i>Materials and Design</i> , 2016 , 94, 166-175	8.1	27
45	Synthesis of reduced graphene oxide nanosheet-supported agglomerated cobalt oxide nanoparticles and their enhanced electron field emission properties. <i>New Journal of Chemistry</i> , 2017 , 41, 8431-8436	3.6	27
44	A review of the microwave-assisted synthesis of carbon nanomaterials, metal oxides/hydroxides and their composites for energy storage applications. <i>Nanoscale</i> , 2021 , 13, 11679-11711	7.7	27
43	Mechanical pressure induced chemical cutting of boron nitride sheets into boron nitride quantum dots and optical properties. <i>Journal of Alloys and Compounds</i> , 2016 , 683, 38-45	5.7	26
42	Enhanced magnetic performance of iron oxide nanoparticles anchored pristine/ N-doped multi-walled carbon nanotubes by microwave-assisted approach. <i>Journal of Alloys and Compounds</i> , 2017 , 695, 1793-1801	5.7	25
41	Effect of isovalent ion substitution on electrical and dielectric properties of LaCrO ₃ . <i>Journal of Alloys and Compounds</i> , 2013 , 576, 154-160	5.7	24
40	Synthesis of La _{0.9} Sr _{0.1} Ga _{0.8} Mg _{0.2} O ₃ electrolyte via ethylene glycol route and its characterizations for IT-SOFC. <i>Ceramics International</i> , 2014 , 40, 7177-7184	5.1	22
39	Thermodynamical, structural, hydrogen storage properties and simulation studies of P ₀ isotherms of (La,Mm)Ni _{5-y} Fe _y . <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 2971-2976	6.7	22
38	On the synthesis and hydrogenation behaviour of MmNi _{5-x} Fe _x alloys and computer simulation of their P ₀ curves. <i>Journal of Alloys and Compounds</i> , 2004 , 373, 208-213	5.7	22
37	Simple and Fast Approach for Synthesis of Reduced Graphene Oxide/MoS ₂ Hybrids for Room Temperature Gas Detection. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 3943-3949	2.9	21
36	Influence of Ni/Mo ratio on structural and electrical properties of double perovskite system Sr ₂ Ni _{1+x} Mo _{1-x} O ₆ . <i>Applied Physics A: Materials Science and Processing</i> , 2015 , 121, 635-644	2.6	19
35	Mesoporous silica particle embedded functional graphene oxide as an efficient platform for urea biosensing. <i>Analytical Methods</i> , 2014 , 6, 6711-6720	3.2	19
34	Electrical conductivity of barium substituted LSGM electrolyte materials for IT-SOFC. <i>Solid State Ionics</i> , 2014 , 262, 428-432	3.3	19
33	Laser processing of graphene and related materials for energy storage: State of the art and future prospects. <i>Progress in Energy and Combustion Science</i> , 2022 , 100981	33.6	19
32	Clean and Efficient Synthesis of Graphene Nanosheets and Rectangular Aligned-Carbon Nanotubes Bundles Using Green Botanical Hydrocarbon Precursor: Sesame Oil. <i>Science of Advanced Materials</i> , 2014 , 6, 76-83	2.3	19
31	Microwave as a Tool for Synthesis of Carbon-Based Electrodes for Energy Storage. <i>ACS Applied Materials & Interfaces</i> , 2021 ,	9.5	18
30	Electrical conductivity of LSGM/SZ composite materials synthesized via coprecipitation route. <i>Journal of Materials Science</i> , 2014 , 49, 5571-5578	4.3	17

29	Highly zone-dependent synthesis of different carbon nanostructures using plasma-enhanced arc discharge technique. <i>Journal of Nanoparticle Research</i> , 2015 , 17, 1	2.3	16
28	Synthesis of coal-derived single-walled carbon nanotube from coal by varying the ratio of Zr/Ni as bimetallic catalyst. <i>Journal of Nanoparticle Research</i> , 2013 , 15, 1	2.3	16
27	Effect of Pb addition on dielectric relaxation in Se ₈₀ In ₂₀ glassy system. <i>Journal of Alloys and Compounds</i> , 2013 , 552, 480-485	5.7	15
26	Heteroatom doping of 2D graphene materials for electromagnetic interference shielding: a review of recent progress. <i>Critical Reviews in Solid State and Materials Sciences</i> , 1-50	10.1	15
25	An overview of recent progress in nanostructured carbon-based supercapacitor electrodes: From zero to bi-dimensional materials. <i>Carbon</i> , 2022 , 193, 298-338	10.4	15
24	Structural characterization, electrical and dielectric relaxations in Dy-doped zirconia. <i>Journal of Alloys and Compounds</i> , 2013 , 549, 238-244	5.7	12
23	Synthesis, structural analysis, upconversion luminescence and magnetic properties of Ho ³⁺ /Yb ³⁺ co-doped GdVO ₄ nanophosphor. <i>Materials Chemistry and Physics</i> , 2020 , 253, 123333	4.4	11
22	High temperature polymer electrolyte membrane fuel cells with Polybenzimidazole-Ce _{0.9} Gd _{0.1} P ₂ O ₇ and polybenzimidazole-Ce _{0.9} Gd _{0.1} P ₂ O ₇ -graphite oxide composite electrolytes. <i>Journal of Power Sources</i> , 2018 , 401, 149-157	8.9	11
21	Electrical conduction mechanism in Se _{90-x} Te ₅ Sn ₅ In _x (x = 0, 3, 6 and 9) multi-component glassy alloys. <i>AIP Advances</i> , 2015 , 5, 087164	1.5	8
20	Investigations on structural and electrical properties of calcium substituted LSGM electrolyte materials for IT-SOFC. <i>Ceramics International</i> , 2014 , 40, 10711-10718	5.1	7
19	Influence of Grain and Grain-Boundary Resistances on Dielectric Properties of KNbO ₃ Under Small DC Bias Field. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 3127-3132	3.8	7
18	Structural and Electrical Characterizations of Lanthanum Chromite: Effect of Synthesis Routes. <i>Transactions of the Indian Ceramic Society</i> , 2012 , 71, 239-242	1.8	6
17	Fabrication of dense Ce _{0.9} Mg _{0.1} P ₂ O ₇ -PmO _n composites by microwave heating for application as electrolyte in intermediate-temperature fuel cells. <i>Ceramics International</i> , 2018 , 44, 6170-6175	5.1	4
16	Functionalized Nanosize Graphene and Its Derivatives for Removal of Contaminations and Water Treatment 2019 , 133-185		4
15	Microwave-Assisted Modification of Graphene and Its Derivatives: Synthesis, Reduction and Exfoliation. <i>Carbon Nanostructures</i> , 2019 , 279-311	0.6	4
14	Synthesis and optical properties of GdVO ₄ : Eu ³⁺ phosphor. <i>Materials Research Express</i> , 2021 , 8, 026201	1.7	4
13	Magnetically recyclable palladium nanoparticles (Fe ₃ O ₄ -Pd) for oxidative coupling between amides and olefins at room temperature. <i>Applied Organometallic Chemistry</i> , 2019 , 33, e4985	3.1	3
12	Physicochemical and electrochemical behaviours of manganese oxide electrodes for supercapacitor application. <i>Journal of Energy Storage</i> , 2020 , 28, 101228	7.8	3

11	Electrical properties of Ba doped LSGM for electrolyte material of solid oxide fuel cells 2013 ,		3
10	The angular dependence of the backscattering coefficient for 3.0 and 5.0 keV electrons from tungsten. <i>Journal Physics D: Applied Physics</i> , 1998 , 31, 2221-2224	3	3
9	Thick-target X-ray bremsstrahlung spectra produced in 6.5 keV and 7.5 keV--Hf collisions 1999 , 52, 493-502		3
8	Two-dimensional layered molybdenum disulfide (MoS ₂)-reduced graphene oxide (rGO) heterostructures modified with Fe ₃ O ₄ for electrochemical sensing of epinephrine. <i>Materials Chemistry and Physics</i> , 2022 , 287, 126274	4.4	3
7	A new solution phase synthesis of cerium(IV) pyrophosphate compounds of different morphologies using cerium(III) precursor. <i>Journal of Alloys and Compounds</i> , 2019 , 793, 686-694	5.7	2
6	Influence of small DC bias field on the electrical behaviour of Sr- and Mg-doped lanthanum gallate. <i>Applied Physics A: Materials Science and Processing</i> , 2014 , 116, 1793-1800	2.6	2
5	Effect of dilution of both A- and B- sites on the multiferroic properties of spinal Mott insulators. <i>Materials Research Express</i> , 2015 , 2, 076501	1.7	2
4	Structural and Electrical Behavior of Double Perovskite Material Sr ₂ NiMoO ₆ — <i>Advanced Science Letters</i> , 2014 , 20, 647-649	0.1	2
3	Sintering and electrical behavior of ZrP ₂ O ₇ /TeP ₂ O ₇ solid solutions Zr _{1-x} Ce _x P ₂ O ₇ ; x = 0.0.2 and (Zr _{0.92} Y _{0.08}) _{1-y} Ce _y P ₂ O ₇ ; y = 0.0.1 for application as electrolyte in intermediate temperature fuel cells. <i>Ionics</i> , 2019 , 25, 155-162	2.7	2
2	Graphene/Graphene Oxide and Carbon Nanotube Based Sensors for the Determination and Removal of Bisphenols 2019 , 329-372		1
1	Microwave-assisted facile synthesis of layered reduced graphene oxide-tungsten disulfide sandwiched Fe ₃ O ₄ nanocomposite as effective and sensitive sensor for detection of dopamine. <i>Materials Chemistry and Physics</i> , 2022 , 287, 126283	4.4	1