

# Ramakrishnan Rajagopalan

## List of Publications by Year in descending order

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83  
papers

1,957  
citations

218381

26  
h-index

276539

41  
g-index

84  
all docs

84  
docs citations

84  
times ranked

2592  
citing authors

#	ARTICLE	IF	CITATIONS
1	Densification and Strengthening of Ferrous-Based Powder Compacts Through Cold Sintering Aided Warm Compaction. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	3
2	Cold sintering, enabling a route to co-sinter an all-solid-state lithium-ion battery. <i>Japanese Journal of Applied Physics</i> , 2021, 60, 037001.	0.8	22
3	Impacts of Crosslinking and Degassing on the Conductivity, Dielectric Loss, and Morphology of Low-Density Polyethylene and Crosslinked Polyethylene. <i>ACS Symposium Series</i> , 2021, , 239-260.	0.5	4
4	Improved thermal conductivity and AC dielectric breakdown strength of silicone rubber/BN composites. <i>Composites Part C: Open Access</i> , 2020, 2, 100023.	1.5	9
5	Broad temperature dependence, high conductivity, and structure-property relations of cold sintering of LLZO-based composite electrolytes. <i>Journal of the European Ceramic Society</i> , 2020, 40, 6241-6248.	2.8	45
6	Prediction of Discharge Performances of Pseudocapacitors Using Their Impedance Characteristics. <i>Journal of the Electrochemical Society</i> , 2020, 167, 013536.	1.3	10
7	Thermally Stable Low-Loss Polymer Dielectrics Enabled by Attaching Cross-Linkable Antioxidant to Polypropylene. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 14154-14164.	4.0	63
8	High-Field Dielectric Properties of Oriented Poly(vinylidene fluoride-co-hexafluoropropylene): Structure-Dielectric Property Relationship and Implications for Energy Storage Applications. <i>ACS Applied Polymer Materials</i> , 2020, 2, 1356-1368.	2.0	64
9	High field dielectric properties of clay filled silicone rubber composites. <i>Materials Today Communications</i> , 2020, 23, 100947.	0.9	14
10	High electrical reliability glass-polymer laminates. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2019, 26, 885-889.	1.8	0
11	Synthesis of V-MoS <sub>2</sub> Layered Alloys as Stable Li-Ion Battery Anodes. <i>ACS Applied Energy Materials</i> , 2019, 2, 8625-8632.	2.5	19
12	Cold sintering process for fabrication of a high volumetric capacity Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> anode. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2019, 250, 114435.	1.7	11
13	Bimodal porous carbon cathode and prelithiated coalesced carbon anode for ultrahigh power energy efficient lithium ion capacitors. <i>Carbon</i> , 2019, 152, 89-97.	5.4	33
14	CNT flexible membranes for energy storage and conversion systems. <i>MRS Communications</i> , 2019, 9, 670-674.	0.8	3
15	Bimodal porous carbon electrodes derived from polyfurfuryl alcohol/phloroglucinol for ionic liquid based electrical double layer capacitors. <i>Journal of Materials Research</i> , 2018, 33, 1189-1198.	1.2	5
16	Cold sintering approach to fabrication of high rate performance binderless LiFePO <sub>4</sub> cathode with high volumetric capacity. <i>Scripta Materialia</i> , 2018, 146, 267-271.	2.6	37
17	Flexible robust binder-free carbon nanotube membranes for solid state and microcapacitor application. <i>Nanotechnology</i> , 2018, 29, 035605.	1.3	4
18	Abnormal high voltage resistivity of polyvinylidene fluoride and implications for applications in high energy density film capacitors. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	31

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19	Cold Sintering of a Covalently Bonded MoS <sub>2</sub> /Graphite Composite as a High Capacity Li <sup>+</sup> Ion Electrode. ChemNanoMat, 2018, 4, 1088-1094.	1.5	8
20	Porous (Swiss-Cheese) Graphite. Journal of Carbon Research, 2018, 4, 27.	1.4	3
21	High Voltage Stability of Ionic Liquid Based Electrochemical Double Layer Capacitors with a Bimodal Porous Carbon Electrode. ChemElectroChem, 2018, 5, 3460-3467.	1.7	2
22	High Power Interdigitated Carbon Nanotube Based Micro-Capacitors. MRS Advances, 2017, 2, 413-418.	0.5	0
23	Enhanced mechanical stability of high temperature ultra-thin glass/polymer composite dielectrics. Materials Letters, 2017, 208, 10-13.	1.3	5
24	Intrinsic limitations of atomic layer deposition for pseudocapacitive metal oxides in porous electrochemical capacitor electrodes. Journal of Materials Chemistry A, 2017, 5, 13086-13097.	5.2	15
25	Prediction of Charge-Discharge and Impedance Characteristics of Electric Double-Layer Capacitors Using Porous Electrode Theory. Journal of the Electrochemical Society, 2017, 164, A2899-A2913.	1.3	19
26	Cold sintering of a Li-ion cathode: LiFePO <sub>4</sub> -composite with high volumetric capacity. Ceramics International, 2017, 43, 15370-15374.	2.3	69
27	High field dielectric properties of polymer-glass laminate. , 2016, , .		0
28	Enhanced ammonia adsorption on functionalized nanoporous carbons. Microporous and Mesoporous Materials, 2015, 218, 15-23.	2.2	68
29	Synthesis and characterization of boron substituted carbon deposits on PFA-derived carbon substrates for hydrogen adsorption. Carbon, 2015, 89, 392-403.	5.4	8
30	Solar powered wrist worn acquisition system for continuous photoplethysmogram monitoring. , 2014, 2014, 3142-5.		15
31	Ultrahigh-Power Flexible Electrochemical Capacitors Using Binder-Free Single-Walled Carbon Nanotube Electrodes and Hydrogel Membranes. Journal of Physical Chemistry C, 2014, 118, 2943-2952.	1.5	40
32	Factors influencing high voltage performance of coconut char derived carbon based electrical double layer capacitor made using acetonitrile and propylene carbonate based electrolytes. Journal of Power Sources, 2014, 272, 90-99.	4.0	18
33	On the effects of confinement within a catalyst consisting of platinum embedded within nanoporous carbon for the hydrogenation of alkenes. Carbon, 2014, 66, 459-466.	5.4	10
34	Synthesis of electro-active manganese oxide thin films by plasma enhanced chemical vapor deposition. Thin Solid Films, 2014, 556, 28-34.	0.8	25
35	Role of Additives in Formation of Solid Electrolyte Interfaces on Carbon Electrodes and their Effect on High Voltage Stability. ChemSusChem, 2014, 7, 1162-1169.	3.6	17
36	Synthesis of carbon with bimodal porosity by simultaneous polymerization of furfuryl alcohol and phloroglucinol. Microporous and Mesoporous Materials, 2014, 196, 235-242.	2.2	14

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37	Characterization of Micro- and Mesoporous Materials Using Accelerated Dynamics Adsorption. <i>Langmuir</i> , 2013, 29, 12400-12409.	1.6	5
38	Surface compression of light adsorbates inside microporous PFA-derived carbons. <i>Carbon</i> , 2013, 60, 538-549.	5.4	34
39	Preparation and characterization of ultrathin free-standing carbon films. <i>Journal of the Korean Physical Society</i> , 2013, 63, 1859-1863.	0.3	1
40	Localized crystallization of polyfurfuryl alcohol derived carbon by alkali metals. <i>Carbon</i> , 2013, 56, 109-120.	5.4	11
41	Platinum embedded within carbon nanospheres for shape selective liquid phase hydrogenation. <i>Carbon</i> , 2013, 57, 485-497.	5.4	16
42	On the effects of emulsion polymerization of furfuryl alcohol on the formation of carbon spheres and other structures derived by pyrolysis of polyfurfuryl alcohol. <i>Carbon</i> , 2013, 51, 85-93.	5.4	37
43	Molecular sieving carbon catalysts for liquid phase reactions: Study of alkene hydrogenation using platinum embedded nanoporous carbon. <i>Journal of Molecular Catalysis A</i> , 2013, 367, 61-68.	4.8	8
44	Enhanced Performance of Symmetric Double Layer Capacitor by Flexible Binder-free SWCNT Membrane Electrodes. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1505, 1.	0.1	1
45	Selective adsorption of nitrate esters with nanostructured carbons. <i>RSC Advances</i> , 2012, 2, 12298.	1.7	6
46	High pressure hydrogen adsorption apparatus: Design and error analysis. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 9123-9136.	3.8	23
47	High energy density capacitor using coal tar pitch derived nanoporous carbon/MnO <sub>2</sub> electrodes in aqueous electrolytes. <i>Journal of Power Sources</i> , 2011, 196, 2380-2386.	4.0	49
48	Synthesis of boron/nitrogen substituted carbons for aqueous asymmetric capacitors. <i>Electrochimica Acta</i> , 2011, 56, 5369-5375.	2.6	25
49	Effect of pyrolysis temperature on the microstructure of disordered carbon nanowires. <i>Thin Solid Films</i> , 2010, 519, 91-95.	0.8	8
50	Chemical stability of glass with an ultra-thin disordered carbon coating. <i>Journal of Non-Crystalline Solids</i> , 2010, 356, 263-269.	1.5	1
51	Effects of Interfacial Modifications on Electrical Properties of Laminar Composite Dielectrics. <i>Langmuir</i> , 2010, 26, 18817-18823.	1.6	5
52	Room temperature amorphous to nanocrystalline transformation in ultra-thin films under tensile stress: an <i>in situ</i> TEM study. <i>Nanotechnology</i> , 2010, 21, 505707.	1.3	11
53	Control of interfaces on electrical properties of SiO <sub>2</sub> /Parylene-C laminar composite dielectrics. <i>Journal of Colloid and Interface Science</i> , 2009, 332, 65-73.	5.0	18
54	High temperature rearrangement of disordered nanoporous carbon at the interface with single wall carbon nanotubes. <i>Carbon</i> , 2009, 47, 2303-2309.	5.4	11

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55	Processing and Characterization of Ultrathin Carbon Coatings on Glass. ACS Applied Materials & Interfaces, 2009, 1, 927-933.	4.0	20
56	Surface Initiated Growth of Poly(ethyl 2-cyanoacrylate) Nanofibers on Surface-Modified Glass Substrates. Chemistry of Materials, 2009, 21, 831-842.	3.2	12
57	Influence of initiators on the growth of poly(ethyl 2-cyanoacrylate) nanofibers. Polymer, 2008, 49, 2235-2242.	1.8	19
58	Overcoming the barrier to graphitization in a polymer-derived nanoporous carbon. Carbon, 2008, 46, 501-510.	5.4	63
59	Temperature effects on electrical transport in semiconducting nanoporous carbon nanowires. Nanotechnology, 2008, 19, 275702.	1.3	11
60	Mechanical testing of pyrolysed poly-furfuryl alcohol nanofibres. Nanotechnology, 2007, 18, 115704.	1.3	31
61	High performance nanoporous carbon membranes for air separation. Carbon, 2007, 45, 1267-1278.	5.4	58
62	Synthesis of nanoporous carbon with pre-graphitic domains. Carbon, 2007, 45, 2307-2310.	5.4	41
63	Catalytic Polymerization and Facile Grafting of Poly(furfuryl alcohol) to Single-Wall Carbon Nanotube: A Preparation of Nanocomposite Carbon. Journal of the American Chemical Society, 2006, 128, 11307-11313.	6.6	74
64	A Simple Technique To Grow Polymer Brushes Using in Situ Surface Ligation of an Organometallic Initiator. Journal of the American Chemical Society, 2006, 128, 13040-13041.	6.6	17
65	Facile catalytic growth of cyanoacrylate nanofibers. Chemical Communications, 2006, , 1139.	2.2	35
66	Modification of macroporous stainless steel supports with silica nanoparticles for size selective carbon membranes with improved flux. Carbon, 2006, 44, 2051-2058.	5.4	26
67	Genesis of porosity in polyfurfuryl alcohol derived nanoporous carbon. Carbon, 2006, 44, 2957-2963.	5.4	135
68	Preparation and Characterization of NPC/SWNT Nanocomposite. Materials Research Society Symposia Proceedings, 2006, 963, 1.	0.1	0
69	Carbon Membranes: A Viable Technology for the Recovery and Purification of Hydrogen Gas. Materials Research Society Symposia Proceedings, 2006, 971, 1.	0.1	0
70	A Simple Method to Grow Polymer Nanofibers from Superglue. Materials Research Society Symposia Proceedings, 2006, 948, 1.	0.1	0
71	Molecular sieving platinum nanoparticle catalysts kinetically frozen in nanoporous carbon. Chemical Communications, 2004, , 2498.	2.2	30
72	Electrochemical synthesis: a novel technique for processing multi-functional coatings. Progress in Organic Coatings, 2003, 47, 365-375.	1.9	74

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73	Characterization of polyaniline-polypyrrole composite coatings on low carbon steel: a XPS and infrared spectroscopy study. <i>Applied Surface Science</i> , 2003, 218, 58-69.	3.1	156
74	Using nanoporous carbon membranes in fuel cells. <i>Materials Research Society Symposia Proceedings</i> , 2003, 801, 181.	0.1	0
75	Porous carbon nanoturf using anodized alumina templating. <i>Materials Research Society Symposia Proceedings</i> , 2003, 788, 671.	0.1	0
76	Study of the Dispersion of Platinum Nanoparticles in Nanoporous Carbon. <i>Microscopy and Microanalysis</i> , 2003, 9, 422-423.	0.2	0
77	Study of the effect of hydrogen on Pt supported Nanoporous Carbon derived from Polyfurfuryl alcohol. <i>Materials Research Society Symposia Proceedings</i> , 2002, 756, 1.	0.1	0
78	Electrochemical deposition of polyaniline-polypyrrole composite coatings on aluminum. <i>Journal of Applied Polymer Science</i> , 2002, 83, 1970-1977.	1.3	56
79	Electrochemical copolymerization and characterization of aniline and isoprene in aqueous-toluene sulfonic acid solution. <i>Journal of Applied Polymer Science</i> , 2002, 84, 184-192.	1.3	1
80	A one-step electrochemical synthesis of polyaniline-polypyrrole composite coatings on carbon fibers. <i>Electrochimica Acta</i> , 2002, 47, 1847-1855.	2.6	35
81	Development of polyaniline-polypyrrole composite coatings on steel by aqueous electrochemical process. <i>Electrochimica Acta</i> , 2001, 46, 2443-2455.	2.6	56
82	Electrochemical polymerization of aniline on carbon fibers in aqueous toluene sulfonate solution. <i>Journal of Applied Polymer Science</i> , 2000, 76, 1503-1509.	1.3	17
83	Electrochemical synthesis of polyaniline-polypyrrole composite coatings on carbon fibres in aqueous toluene sulphonate solution. <i>Surface Engineering</i> , 2000, 16, 481-486.	1.1	7