Rajan Jose

List of Publications by Citations

258 papers	11,280 citations	57 h-index	99 g-index
275 ext. papers	13,011 ext. citations	6 avg, IF	6.8 L-index

#	Paper	IF	Citations
258	Metal Oxides for Dye-Sensitized Solar Cells. *Journal of the American Ceramic Society*, **2009**, 92, 289-301	3.8	505
257	GraphenePolymer Nanofiber Membrane for Ultrafast Photonics. *Advanced Functional Materials*, **2010**, 20, 782-791	15.6	382
256	Electrolyte selection for supercapacitive devices: a critical review. *Nanoscale Advances*, **2019**, 1, 3807-3835	5.1	337
255	A perspective on the production of dye-sensitized solar modules. *Energy and Environmental Science*, **2014**, 7, 3952-3981	35.4	325
254	Nanostructured ceramics by electrospinning. *Journal of Applied Physics*, **2007**, 102, 111101	2.5	311
253	Nanostructured Nb2O5 Polymorphs by Electrospinning for Rechargeable Lithium Batteries. *Journal of Physical Chemistry C*, **2010**, 114, 664-671	3.8	294
252	Advances in hole transport materials engineering for stable and efficient perovskite solar cells. *Nano Energy*, **2017**, 34, 271-305	17.1	278
251	Progress, challenges and perspectives in flexible perovskite solar cells. *Energy and Environmental Science*, **2016**, 9, 3007-3035	35.4	278
250	High surface area activated carbon from rice husk as a high performance supercapacitor electrode. *Electrochimica Acta*, **2016**, 192, 110-119	6.7	277
249	Controlled electron injection and transport at materials interfaces in dye sensitized solar cells. *Materials Science and Engineering Reports*, **2009**, 63, 81-99	30.9	261
248	Characterization of MgCo2O4 as an electrode for high performance supercapacitors. *Electrochimica Acta*, **2015**, 161, 312-321	6.7	231
247	Interfaces in Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700623	21.8	225
246	Spray deposition of electrospun TiO2nanorods for dye-sensitized solar cell. *Nanotechnology*, **2007**, 18, 365709	3.4	203
245	Science and engineering of electrospun nanofibers for advances in clean energy, water filtration, and regenerative medicine. *Journal of Materials Science*, **2010**, 45, 6283-6312	4.3	188
244	Nb2O5 Photoelectrodes for Dye-Sensitized Solar Cells: Choice of the Polymorph. *Journal of Physical Chemistry C*, **2010**, 114, 21795-21800	3.8	186
243	Quantum Dot anti-CD Conjugates: Are They Potential Photosensitizers or Potentiators of Classical Photosensitizing Agents in Photodynamic Therapy of Cancer?. *Nano Letters*, **2004**, 4, 1567-1573	11.5	174
242	Structural and Optical Properties of Electrospun TiO2 Nanofibers. *Chemistry of Materials*, **2007**, 19, 6536-6542	9.6	161

241	Vertical TiO2 Nanorods as a Medium for Stable and High-Efficiency Perovskite Solar Modules. *ACS Nano*, **2015**, 9, 8420-9	16.7	158
240	Structure-property correlation of CdSe clusters using experimental results and first-principles DFT calculations. *Journal of the American Chemical Society*, **2006**, 128, 629-36	16.4	146
239	Superior supercapacitive performance in electrospun copper oxide nanowire electrodes. *Journal of Materials Chemistry A*, **2014**, 2, 6578-6588	13	144
238	Improved Electron Diffusion Coefficient in Electrospun TiO2 Nanowires. *Journal of Physical Chemistry C*, **2009**, 113, 21538-21542	3.8	142
237	Preparation and electrochemical studies of electrospun TiO2 nanofibers and molten salt method nanoparticles. *Electrochimica Acta*, **2010**, 55, 3109-3117	6.7	124
236	High performance dye-sensitized solar cells with record open circuit voltage using tin oxide nanoflowers developed by electrospinning. *Energy and Environmental Science*, **2012**, 5, 5401-5407	35.4	123
235	A simple recipe for an efficient TiO2 nanofiber-based dye-sensitized solar cell. *Journal of Colloid and Interface Science*, **2011**, 353, 39-45	9.3	120
234	High performance supercapacitor electrodes from electrospun nickel oxide nanowires. *Journal of Alloys and Compounds*, **2014**, 610, 143-150	5.7	115
233	Electrochemical properties of carbon from oil palm kernel shell for high performance supercapacitors. *Electrochimica Acta*, **2015**, 174, 78-86	6.7	111
232	Electrospun polyaniline nanofibers web electrodes for supercapacitors. *Journal of Applied Polymer Science*, **2013**, 129, 1660-1668	2.9	111
231	High performance MnO2 nanoflower electrode and the relationship between solvated ion size and specific capacitance in highly conductive electrolytes. *Materials Research Bulletin*, **2014**, 57, 221-230	5.1	109
230	Controlled synthesis and application of ZnO nanoparticles, nanorods and nanospheres in dye-sensitized solar cells. *Nanotechnology*, **2009**, 20, 045604	3.4	107
229	Electron transport in electrospun TiO2 nanofiber dye-sensitized solar cells. *Applied Physics Letters*, **2009**, 95, 012101	3.4	105
228	High energy and power density asymmetric supercapacitors using electrospun cobalt oxide nanowire anode. *Journal of Power Sources*, **2014**, 270, 526-535	8.9	97
227	Role of morphology and crystallinity of nanorod and planar electron transport layers on the performance and long term durability of perovskite solar cells. *Journal of Power Sources*, **2015**, 283, 61-67	8.9	96
226	Tin oxide as a photoanode for dye-sensitised solar cells: Current progress and future challenges. *Journal of Power Sources*, **2015**, 293, 1039-1052	8.9	87
225	Electrospun Ceramic Nanofiber Mats Today: Synthesis, Properties, and Applications. *Materials*, **2017**, 10,	3.5	86
224	Critical insight: challenges and requirements of fibre electrodes for wearable electrochemical energy storage. *Energy and Environmental Science*, **2019**, 12, 2148-2160	35.4	85

223	Magnetic Iron Oxide Nanoparticles: Chemical Synthesis and Applications Review. *Current Nanoscience*, **2013**, 9, 561-575	1.4	83
222	Materials 4.0: Materials big data enabled materials discovery. *Applied Materials Today*, **2018**, 10, 127-132	6.6	81
221	Effect of biofilm formation on the performance of microbial fuel cell for the treatment of palm oil mill effluent. *Bioprocess and Biosystems Engineering*, **2015**, 38, 15-24	3.7	74
220	Studies on the lithium ion diffusion coefficients of electrospun Nb2O5 nanostructures using galvanostatic intermittent titration and electrochemical impedance spectroscopy. *Electrochimica Acta*, **2014**, 128, 198-202	6.7	73
219	Uncoated, broad fluorescent, and size-homogeneous CdSe quantum dots for bioanalyses. *Analytical Chemistry*, **2006**, 78, 321-30	7.8	73
218	High performance asymmetric supercapacitors using electrospun copper oxide nanowires anode. *Journal of Alloys and Compounds*, **2015**, 633, 22-30	5.7	71
217	Structural and Electrical Properties of Nb-Doped Anatase TiO2 Nanowires by Electrospinning. *Journal of the American Ceramic Society*, **2010**, 93, 4096-4102	3.8	71
216	One-Dimensional Assembly of Conductive and Capacitive Metal Oxide Electrodes for High-Performance Asymmetric Supercapacitors. *ACS Applied Materials & Interfaces*, **2017**, 9, 10730-10742	8.5	69
215	Tandem perovskite solar cells. *Renewable and Sustainable Energy Reviews*, **2018**, 84, 89-110	16.2	69
214	Relationship between the molecular orbital structure of the dyes and photocurrent density in the dye-sensitized solar cells. *Applied Physics Letters*, **2008**, 93, 023125	3.4	69
213	Thermal and optical properties of TeO2BaOSrONb2O5 based glasses: New broadband Raman gain media. *Journal of Non-Crystalline Solids*, **2006**, 352, 5564-5571	3.9	69
212	Electrospun TiO2 nanorods assembly sensitized by CdS quantum dots: a low-cost photovoltaic material. *Energy and Environmental Science*, **2010**, 3, 2010	35.4	68
211	Characterization and sintering of BaZrO3 nanoparticles synthesized through a single-step combustion process. *Journal of Alloys and Compounds*, **2008**, 458, 528-531	5.7	68
210	Tungsten doped titanium dioxide nanowires for high efficiency dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2014**, 16, 7448-54	3.6	67
209	Advances in stability of perovskite solar cells. *Organic Electronics*, **2020**, 78, 105590	3.5	67
208	Continuous nanobelts of nickel oxideobalt oxide hybrid with improved capacitive charge storage properties. *Materials and Design*, **2017**, 122, 376-384	8.1	64
207	Conversion efficiency versus sensitizer for electrospun TiO(2) nanorod electrodes in dye-sensitized solar cells. *Nanotechnology*, **2008**, 19, 424004	3.4	64
206	Electrochemical performance studies of MnO2 nanoflowers recovered from spent battery. *Materials Research Bulletin*, **2014**, 60, 5-9	5.1	62

205	Intense ultraviolet emission from Tb3+ and Yb3+ codoped glass ceramic containing CaF2 nanocrystals. *Applied Physics Letters*, **2007**, 90, 131116	3.4	62
204	Humidity versus photo-stability of metal halide perovskite films in a polymer matrix. *Physical Chemistry Chemical Physics*, **2016**, 18, 21629-39	3.6	62
203	Multiporous nanofibers of SnO2 by electrospinning for high efficiency dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 17427-17434	13	61
202	Pseudocapacitive Charge Storage in Single-Step-Synthesized CoO/MnO2/MnCo2O4 Hybrid Nanowires in Aqueous Alkaline Electrolytes. *Journal of Physical Chemistry C*, **2017**, 121, 21171-21183	3.8	58
201	Enhancing the stability of polymer solar cells by improving the conductivity of the nanostructured MoO3 hole-transport layer. *Physical Chemistry Chemical Physics*, **2013**, 15, 6831-41	3.6	55
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199	Metal oxide semiconducting interfacial layers for photovoltaic and photocatalytic applications. *Materials for Renewable and Sustainable Energy*, **2015**, 4, 1	4.7	54
198	Conversion of Oil Palm Kernel Shell Biomass to Activated Carbon for Supercapacitor Electrode Application. *Waste and Biomass Valorization*, **2019**, 10, 1731-1740	3.2	53
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196	Electrochemical properties of bare and Ta-substituted Nb2O5 nanostructures. *Electrochimica Acta*, **2011**, 56, 1518-1528	6.7	50
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193	Critical influence of reduced graphene oxide mediated binding of M (M = Mg, Mn) with Co ions, chemical stability and charge storability enhancements of spinal-type hierarchical MCo 2 O 4 nanostructures. *Electrochimica Acta*, **2017**, 243, 119-128	6.7	47
192	Hydrothermal syntheses of tungsten doped TiO2 and TiO2/WO3 composite using metal oxide precursors for charge storage applications. *Journal of Alloys and Compounds*, **2018**, 740, 703-710	5.7	47
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190	Fabrication and characterization of dye-sensitized solar cells from rutile nanofibers and nanorods. *Energy*, **2011**, 36, 627-632	7.9	46
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188	Highly porous TiO2 nanofibers by humid-electrospinning with enhanced photocatalytic properties. *Journal of Alloys and Compounds*, **2019**, 790, 257-265	5.7	42

187	Large scale synthesis of binary composite nanowires in the Mn 2 O 3 -SnO 2 system with improved charge storage capabilities. *Chemical Engineering Journal*, **2017**, 327, 962-972	14.7	41
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185	Synthesis and electrochemical evaluation of the PANI/□MnO2 electrode for high performing asymmetric supercapacitors. *New Journal of Chemistry*, **2017**, 41, 6574-6584	3.6	40
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182	Effect of processing parameters on the charge storage properties of MgCo2O4 electrodes. *Ceramics International*, **2017**, 43, 12270-12279	5.1	38
181	Void Space Control in Porous Carbon for High-Density Supercapacitive Charge Storage. *Energy & Fuels*, **2020**, 34, 5072-5083	4.1	38
180	Layered sodium titanate nanostructures as a new electrode for high energy density supercapacitors. *Electrochimica Acta*, **2013**, 113, 141-148	6.7	38
179	Random nanowires of nickel doped TiO2 with high surface area and electron mobility for high efficiency dye-sensitized solar cells. *Dalton Transactions*, **2013**, 42, 1024-32	4.3	38
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169	Doubling of electrochemical parameters via the pre-intercalation of Na+ in layered MnO2 nanoflakes compared to □MnO2 nanorods. *RSC Advances*, **2015**, 5, 9667-9673	3.7	32
168	Ramification of zinc oxide doped hydroxyapatite biocomposites for the mineralization of osteoblasts. *Materials Science and Engineering C*, **2019**, 96, 337-346	8.3	32
167	A glassy carbon electrode modified with SnO2 nanofibers, polyaniline and hemoglobin for improved amperometric sensing of hydrogen peroxide. *Mikrochimica Acta*, **2017**, 184, 4443-4450	5.8	30
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157	In situ encapsulation of tin oxide and cobalt oxide composite in porous carbon for high-performance energy storage applications. *Journal of Electroanalytical Chemistry*, **2018**, 817, 217-225	4.1	25
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150	Crystal structure and dielectric properties of a new complex perovskite oxide Ba2LaSbO6. *Applied Physics A: Materials Science and Processing*, **2004**, 79, 2041-2047	2.6	22
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137	Design of Ultimate Gain-Flattened O-, E-, and S$+$ C$+$ L Ultrabroadband Fiber Amplifiers Using a New Fiber Raman Gain Medium. *Journal of Lightwave Technology*, **2007**, 25, 2727-2738	4	18
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133	Perovskite solar cell-hybrid devices: thermoelectrically, electrochemically, and piezoelectrically connected power packs. *Journal of Materials Chemistry A*, **2019**, 7, 26661-26692	13	18
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110	Advances in stable and flexible perovskite solar cells. *Current Applied Physics*, **2020**, 20, 720-737	2.6	12
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107	Enhanced performance of a Ni-rich LiNi0.8Co0.1Mn0.1O2 cathode material formed through Taylor flow synthesis and surface modification with Li2MoO4. *Chemical Engineering Journal*, **2021**, 413, 127150	14.7	12
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