

# Balasubramaniam Saravanakumar

## List of Publications by Year in Descending Order

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**Version:** 2024-04-28

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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.

72  
papers

2,139  
citations

27  
h-index

44  
g-index

75  
ext. papers

2,566  
ext. citations

5.6  
avg, IF

5.37  
L-index

#	Paper	IF	Citations
72	Engineering of Thermally Converted 3D-NiO Co <sub>3</sub> O <sub>4</sub> /Ni//3D-?-Fe <sub>4</sub> N C@Ni/SS Porous Electrodes for High-performance Supercapatteries. <i>Electrochimica Acta</i> , <b>2022</b> , 412, 140076	6.7	2
71	Quaternary CuFeSnS/PVP/rGO Composite for Supercapacitor Applications. <i>ACS Omega</i> , <b>2021</b> , 6, 9471-9484	3.9	9
70	Preparation of NiCo <sub>2</sub> O <sub>4</sub> microspheres employing hydrothermal approach. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 17060-17070	6.7	2
69	NiMoO nanorods photocatalytic activity comparison under UV and visible light. <i>Environmental Research</i> , <b>2021</b> , 197, 111073	7.9	2
68	Comprehensive Review on Flexoelectric Energy Harvesting Technology: Mechanisms, Device Configurations, and Potential Applications. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 2898-2924	4	3
67	Biomedical application of single anatase phase TiO <sub>2</sub> nanoparticles with addition of Rambutan (Nephelium lappaceum L.) fruit peel extract. <i>Applied Nanoscience (Switzerland)</i> , <b>2021</b> , 11, 699-708	3.3	4
66	High performance MnSn(OH) <sub>6</sub> electrodes for energy conversion application. <i>Materials Letters</i> , <b>2021</b> , 282, 128888	3.3	2
65	Efficient photocatalytic degradation of hazardous pollutants by homemade kitchen blender novel technique via 2D-material of few-layer MXene nanosheets. <i>Chemosphere</i> , <b>2021</b> , 281, 130984	8.4	10
64	Asymmetric polyhedron structured NiSe <sub>2</sub> @MoSe <sub>2</sub> device for use as a supercapacitor. <i>Nanoscale Advances</i> , <b>2021</b> , 3, 4207-4215	5.1	6
63	Designing rational and cheapest SeO <sub>2</sub> electrocatalyst for long stable water splitting process. <i>Journal of Physics and Chemistry of Solids</i> , <b>2020</b> , 145, 109544	3.9	8
62	CoNiSe Nanostructures for Clean Energy Production. <i>ACS Omega</i> , <b>2020</b> , 5, 14702-14710	3.9	8
61	Construction of three-dimensional MnO <sub>2</sub> /Ni network as an efficient electrode material for high performance supercapacitors. <i>Electrochimica Acta</i> , <b>2020</b> , 342, 136041	6.7	33
60	Neutral and alkaline chemical environment dependent synthesis of Mn <sub>3</sub> O <sub>4</sub> for oxygen evolution reaction (OER). <i>Materials Chemistry and Physics</i> , <b>2020</b> , 247, 122864	4.4	6
59	Functional reduced graphene oxide/cobalt hydroxide composite for energy storage applications. <i>Materials Letters</i> , <b>2020</b> , 276, 128193	3.3	6
58	Hydrothermal Method Derived MnMoO <sub>4</sub> Crystals: Effect of Cationic Surfactant on Microstructures and Electrochemical Properties. <i>ChemistrySelect</i> , <b>2020</b> , 5, 7728-7733	1.8	3
57	Highly Stabilized Silicon Nanoparticles for Lithium Storage via Hierarchical Carbon Architecture. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 4777-4786	6.1	10
56	Electrochemical Oxygen Evolution Reaction Activity of Tin Sulfide Nanostructures. <i>ChemistrySelect</i> , <b>2020</b> , 5, 11703-11707	1.8	

55	Synthesis of highly active biocompatible ZrO <sub>2</sub> nanorods using a bioextract. <i>Ceramics International</i> , <b>2020</b> , 46, 25915-25920	5.1	11
54	Investigation on copper based oxide, sulfide and selenide derivatives oxygen evolution reaction activity. <i>Applied Nanoscience (Switzerland)</i> , <b>2020</b> , 10, 4299-4306	3.3	4
53	Nickel, bismuth, and cobalt vanadium oxides for supercapacitor applications. <i>Ceramics International</i> , <b>2020</b> , 46, 28206-28210	5.1	8
52	Three-dimensional BiO/Ti microspheres as an advanced negative electrode for hybrid supercapacitors. <i>Chemical Communications</i> , <b>2020</b> , 56, 12973-12976	5.8	11
51	3D-Flower-Like Copper Sulfide Nanoflake-Decorated Carbon Nanofragments-Modified Glassy Carbon Electrodes for Simultaneous Electrocatalytic Sensing of Co-existing Hydroquinone and Catechol. <i>Sensors</i> , <b>2019</b> , 19,	3.8	16
50	Holey two dimensional manganese cobalt oxide nanosheets as a high-performance electrode for supercapattery. <i>Chemical Engineering Journal</i> , <b>2019</b> , 373, 547-555	14.7	36
49	Coral-like reduced graphene oxide/tungsten sulfide hybrid as a cathode host of high performance lithium-sulfur battery. <i>Journal of Power Sources</i> , <b>2019</b> , 420, 22-28	8.9	18
48	3D honeycomb NiCo <sub>2</sub> S <sub>4</sub> @ Ni(OH) <sub>2</sub> nanosheets for flexible all-solid-state asymmetric supercapacitors with enhanced specific capacitance. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 790, 693-702	5.7	14
47	Enhancing the performance and stability of NiCo <sub>2</sub> O <sub>4</sub> nanoneedle coated on Ni foam electrodes with Ni seed layer for supercapacitor applications. <i>Ceramics International</i> , <b>2019</b> , 45, 13099-13111	5.1	13
46	Transition-Metal Element (Ni, Co)-Doped MgO Microflowers for Electrochemical Biosensor Applications. <i>Jom</i> , <b>2019</b> , 71, 279-284	2.1	3
45	Ferrimagnetism in cobalt ferrite (CoFe <sub>2</sub> O <sub>4</sub> ) nanoparticles. <i>Nano Structures Nano Objects</i> , <b>2018</b> , 14, 84-91	5.6	79
44	Rational design of binder-free ZnCo <sub>2</sub> O <sub>4</sub> and Fe <sub>2</sub> O <sub>3</sub> decorated porous 3D Ni as high-performance electrodes for asymmetric supercapacitor. <i>Ceramics International</i> , <b>2018</b> , 44, 10635-10645	5.1	22
43	Structural, optical and magnetic properties of CuFe <sub>2</sub> O <sub>4</sub> nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2018</b> , 29, 1975-1984	2.1	30
42	Structural, Optical and Magnetic Properties of NiO Nanopowders. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2018</b> , 18, 4658-4666	1.3	15
41	Mesoporous 3D NiCo <sub>2</sub> O <sub>4</sub> /MWCNT nanocomposite aerogels prepared by a supercritical CO <sub>2</sub> drying method for high performance hybrid supercapacitor electrodes. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2018</b> , 538, 451-459	5.1	43
40	Fabrication and Characterization of Supercapacitors toward Self-Powered System <b>2018</b> ,		2
39	Highly Flexible Electrospun Hybrid (Polyurethane/Dextran/Pyocyanin) Membrane for Antibacterial Activity via Generation of Oxidative Stress. <i>ACS Omega</i> , <b>2018</b> , 3, 14551-14561	3.9	11
38	Fabrication of nanofiber coated with l-arginine via electrospinning technique: a novel nanomatrix to counter oxidative stress under crosstalk of co-cultured fibroblasts and satellite cells. <i>Cell Communication and Adhesion</i> , <b>2018</b> , 24, 19-32		7

37	A microcrystalline cellulose ingrained polydimethylsiloxane triboelectric nanogenerator as a self-powered locomotion detector. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 1810-1815	7.1	45
36	Piezoelectric BaTiO <sub>3</sub> /alginate spherical composite beads for energy harvesting and self-powered wearable flexion sensor. <i>Composites Science and Technology</i> , <b>2017</b> , 142, 65-78	8.6	59
35	Controlled synthesis and electrochemical properties of Ag-doped Co <sub>3</sub> O <sub>4</sub> nanorods. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 29666-29671	6.7	29
34	NiCoS nanosheet-decorated 3D, porous Ni film@Ni wire electrode materials for all solid-state asymmetric supercapacitor applications. <i>Nanoscale</i> , <b>2017</b> , 9, 18819-18834	7.7	84
33	Polypyrrole-Decorated Hierarchical NiCo <sub>2</sub> O <sub>4</sub> Nanoneedles/Carbon Fiber Papers for Flexible High-Performance Supercapacitor Applications. <i>Electrochimica Acta</i> , <b>2017</b> , 247, 524-534	6.7	64
32	Worm structure piezoelectric energy harvester using ionotropic gelation of barium titanate-calcium alginate composite. <i>Energy</i> , <b>2017</b> , 118, 1146-1155	7.9	22
31	Single-crystalline ZnO sheet Source-Gated Transistors. <i>Scientific Reports</i> , <b>2016</b> , 6, 19232	4.9	29
30	Multifunctional Nanocarpet for Cancer Theranostics: Remotely Controlled Graphene Nanoheaters for Thermo-Chemosensitisation and Magnetic Resonance Imaging. <i>Scientific Reports</i> , <b>2016</b> , 6, 20543	4.9	66
29	Synthesis and characterization of NiCo <sub>2</sub> O <sub>4</sub> nanoplates as efficient electrode materials for electrochemical supercapacitors. <i>Applied Surface Science</i> , <b>2016</b> , 370, 452-458	6.7	47
28	Fabrication of PDMS-based triboelectric nanogenerator for self-sustained power source application. <i>International Journal of Energy Research</i> , <b>2016</b> , 40, 288-297	4.5	31
27	Self powered pH sensor using piezoelectric composite worm structures derived by ionotropic gelation approach. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 237, 534-544	8.5	17
26	Human Interactive Triboelectric Nanogenerator as a Self-Powered Smart Seat. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 9692-9	9.5	51
25	Piezoelectric-driven self-charging supercapacitor power cell. <i>ACS Nano</i> , <b>2015</b> , 9, 4337-45	16.7	170
24	Flexible, Hybrid Piezoelectric Film (BaTi(1-x)Zr(x)O <sub>3</sub> )/PVDF Nanogenerator as a Self-Powered Fluid Velocity Sensor. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 9831-40	9.5	188
23	Fabrication of an eco-friendly composite nanogenerator for self-powered photosensor applications. <i>Carbon</i> , <b>2015</b> , 84, 56-65	10.4	37
22	Electrochemical Deposition of 58SiO <sub>2</sub> -33CaO-9P <sub>2</sub> O <sub>5</sub> Nanobioactive Glass Particles on Ti-6Al-4V Alloy for Biomedical Applications. <i>International Journal of Applied Ceramic Technology</i> , <b>2015</b> , 12, 95-105	2	5
21	Rambutan peels promoted biomimetic synthesis of bioinspired zinc oxide nanochains for biomedical applications. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2015</b> , 137, 250-8	4.4	110
20	Vanadium Pentoxide/Reduced Graphene Oxide Composite as an Efficient Electrode Material for High-Performance Supercapacitors and Self-Powered Systems. <i>Energy Technology</i> , <b>2015</b> , 3, 913-924	3.5	28

19	Thermally reduced graphene oxide-coated fabrics for flexible supercapacitors and self-powered systems. <i>Nano Energy</i> , <b>2015</b> , 15, 587-597	17.1	69
18	Gate-tunable photoresponse of defective graphene: from ultraviolet to visible. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 2171-7	9.5	14
17	Defect-induced metallic-to-semiconducting transition in multilayer graphene. <i>RSC Advances</i> , <b>2015</b> , 5, 16821-16827	3.7	8
16	Electrical measurement of PVA/graphene nanofibers for transparent electrode applications. <i>Synthetic Metals</i> , <b>2014</b> , 191, 113-119	3.6	26
15	Plasma-induced photoresponse in few-layer graphene. <i>Carbon</i> , <b>2014</b> , 73, 25-33	10.4	8
14	Self-powered pH sensor based on a flexible organic-inorganic hybrid composite nanogenerator. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 13716-23	9.5	97
13	Novel Cu/CuO/ZnO hybrid hierarchical nanostructures for non-enzymatic glucose sensor application. <i>Journal of Electroanalytical Chemistry</i> , <b>2014</b> , 717-718, 90-95	4.1	68
12	Growth of 2D ZnO Nanowall for Energy Harvesting Application. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 8831-8836	3.8	45
11	Self-induced gate dielectric for graphene field-effect transistor. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 6443-6	9.5	7
10	Investigation of UV photoresponse property of Al, N co-doped ZnO film. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 580, 538-543	5.7	57
9	Fabrication of a ZnO nanogenerator for eco-friendly biomechanical energy harvesting. <i>RSC Advances</i> , <b>2013</b> , 3, 16646	3.7	71
8	Facile synthesis of graphene/ZnO nanocomposites by low temperature hydrothermal method. <i>Materials Research Bulletin</i> , <b>2013</b> , 48, 878-883	5.1	58
7	Thickness-Dependent Electrical Transport Properties of Graphene. <i>Science of Advanced Materials</i> , <b>2013</b> , 5, 542-548	2.3	9
6	An investigation of the electrical properties of p-type Al:N Co-doped ZnO thin films. <i>Journal of the Korean Physical Society</i> , <b>2012</b> , 61, 1737-1741	0.6	7
5	Energy coupling processes in InGaN/GaN nanopillar light emitting diodes embedded with Ag and Ag/SiO <sub>2</sub> nanoparticles. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 21749		18
4	Synthesis and characterisation of nanobioactive glass for biomedical applications. <i>Materials Letters</i> , <b>2011</b> , 65, 31-34	3.3	11
3	Analysis of Physical Properties and Hydroxyapatite Precipitation In Vitro of TiO <sub>2</sub> -Containing Phosphate-Based Glass Systems. <i>Journal of the American Ceramic Society</i> , <b>2010</b> , 93, 4053-4060	3.8	12
2	Effect of Substrate Temperature on the Structural and Optical Properties of Nanocrystalline Cadmium Selenide Thin Films Prepared by Electron Beam Evaporation Technique. <i>Acta Physica Polonica A</i> , <b>2010</b> , 118, 623-628	0.6	15

- 1 Three Dimensional Porous Binary Metal Oxide Networks for High Performance Supercapacitor Electrodes 167-192