

# Sumanta Sahoo

## List of Publications by Year in descending order

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76  
papers

5,379  
citations

76294

40  
h-index

82499

72  
g-index

77  
all docs

77  
docs citations

77  
times ranked

4753  
citing authors

#	ARTICLE	IF	CITATIONS
1	Heteroatom doped graphene engineering for energy storage and conversion. <i>Materials Today</i> , 2020, 39, 47-65.	8.3	400
2	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.	15.8	379
3	Graphene research and their outputs: Status and prospect. <i>Journal of Science: Advanced Materials and Devices</i> , 2020, 5, 10-29.	1.5	318
4	A review on synthesis of graphene, h-BN and MoS <sub>2</sub> for energy storage applications: Recent progress and perspectives. <i>Nano Research</i> , 2019, 12, 2655-2694.	5.8	283
5	Recent progress on carbon-based composite materials for microwave electromagnetic interference shielding. <i>Carbon</i> , 2021, 177, 304-331.	5.4	239
6	Facile Synthesis of Three-Dimensional Ternary ZnCo <sub>2</sub> O <sub>4</sub> /Reduced Graphene Oxide/NiO Composite Film on Nickel Foam for Next Generation Supercapacitor Electrodes. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 241-251.	3.2	176
7	An overview of recent progress in nanostructured carbon-based supercapacitor electrodes: From zero to bi-dimensional materials. <i>Carbon</i> , 2022, 193, 298-338.	5.4	168
8	Graphene/polypyrrole nanofiber nanocomposite as electrode material for electrochemical supercapacitor. <i>Polymer</i> , 2013, 54, 1033-1042.	1.8	161
9	Microwave-assisted thin reduced graphene oxide-cobalt oxide nanoparticles as hybrids for electrode materials in supercapacitor. <i>Journal of Energy Storage</i> , 2021, 40, 102724.	3.9	137
10	Advances in pseudocapacitive and battery-like electrode materials for high performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2022, 10, 13190-13240.	5.2	137
11	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, 91, 100981.	15.8	124
12	Graphene and modified graphene-based polymer nanocomposites – A review. <i>Journal of Reinforced Plastics and Composites</i> , 2014, 33, 1158-1170.	1.6	122
13	Porous Ternary High Performance Supercapacitor Electrode Based on Reduced Graphene Oxide, NiMn <sub>2</sub> O <sub>4</sub> , and Polyaniline. <i>Electrochimica Acta</i> , 2016, 216, 386-396.	2.6	122
14	Highly Uniform Atomic Layer-Deposited MoS <sub>2</sub> @3D-Ni-Foam: A Novel Approach To Prepare an Electrode for Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 40252-40264.	4.0	117
15	Electrochemical characterization of in situ polypyrrole coated graphene nanocomposites. <i>Synthetic Metals</i> , 2011, 161, 1713-1719.	2.1	112
16	A review on the current research on microwave processing techniques applied to graphene-based supercapacitor electrodes: An emerging approach beyond conventional heating. <i>Journal of Energy Chemistry</i> , 2022, 74, 252-282.	7.1	104
17	A 3D walking palm-like core-shell CoMoO <sub>4</sub> @NiCo <sub>2</sub> S <sub>4</sub> @nickel foam composite for high-performance supercapacitors. <i>Dalton Transactions</i> , 2019, 48, 3853-3861.	1.6	103
18	Microwave absorption behaviour of MWCNT based nanocomposites in X-band region. <i>EXPRESS Polymer Letters</i> , 2013, 7, 212-223.	1.1	102

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19	Microwave bottom-up route for size-tunable and switchable photoluminescent graphene quantum dots using acetylacetone: New platform for enzyme-free detection of hydrogen peroxide. <i>Carbon</i> , 2015, 81, 514-524.	5.4	93
20	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.	2.8	93
21	Research progress and future aspects: Metal selenides as effective electrodes. <i>Energy Storage Materials</i> , 2022, 47, 13-43.	9.5	92
22	Transition Metal-Doped Polyaniline/Single-Walled Carbon Nanotubes Nanocomposites: Efficient Electrode Material for High Performance Supercapacitors. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 1114-1127.	3.2	91
23	Microwave as a Tool for Synthesis of Carbon-Based Electrodes for Energy Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 20306-20325.	4.0	90
24	Chemical synthesis of 3D copper sulfide with different morphologies for high performance supercapacitors application. <i>RSC Advances</i> , 2016, 6, 14844-14851.	1.7	79
25	Facile synthesis of Fe <sub>3</sub> O <sub>4</sub> nanorod decorated reduced graphene oxide (RGO) for supercapacitor application. <i>RSC Advances</i> , 2016, 6, 107057-107064.	1.7	75
26	Mesoporous Fe-Ni-Co ternary oxide nanoflake arrays on Ni foam for high-performance supercapacitor applications. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 63, 181-190.	2.9	71
27	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> , 2022, 47, 570-619.	6.8	68
28	Polyindole Booster for Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Based Symmetric and Asymmetric Supercapacitor Devices. <i>ACS Applied Energy Materials</i> , 2021, 4, 3712-3723.	2.5	62
29	Uniform growth of ZnS nanoflakes for high-performance supercapacitor applications. <i>Journal of Energy Storage</i> , 2021, 36, 102408.	3.9	62
30	Nanostructured 3D zinc cobaltite/nitrogen-doped reduced graphene oxide composite electrode for supercapacitor applications. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 54, 205-217.	2.9	58
31	A facile synthesis of boron nitride supported zinc cobalt sulfide nano hybrid as high-performance pseudocapacitive electrode material for asymmetric supercapacitors. <i>Journal of Energy Storage</i> , 2020, 32, 101993.	3.9	53
32	Hollow nano- and microstructures: Mechanism, composition, applications, and factors affecting morphology and performance. <i>Coordination Chemistry Reviews</i> , 2022, 458, 214429.	9.5	52
33	Room-temperature synthesis of NiS hollow spheres on nickel foam for high-performance supercapacitor electrodes. <i>Materials Letters</i> , 2018, 210, 105-108.	1.3	51
34	Direct growth of nickel cobalt layered double hydroxide on nickel foam via redox reaction between nitrate ion and ethanol for hybrid supercapacitors. <i>Electrochimica Acta</i> , 2021, 367, 137226.	2.6	49
35	Research updates on graphene oxide-based polymeric nanocomposites. <i>Polymer Composites</i> , 2014, 35, 2297-2310.	2.3	47
36	Fabrication of transition-metal-doped polypyrrole/multiwalled carbon nanotubes nanocomposites for supercapacitor applications. <i>Journal of Applied Polymer Science</i> , 2013, 130, 554-562.	1.3	46

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37	Adsorbed Cr(VI) based activated carbon/polyaniline nanocomposite: A superior electrode material for asymmetric supercapacitor device. <i>Composites Part B: Engineering</i> , 2020, 193, 107913.	5.9	46
38	Novel Nanoporous Ti-Phosphonate Metal-Organic Framework for Selective Sensing of 2,4,6-Trinitrophenol and a Promising Electrode in an Energy Storage Device. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 14224-14237.	3.2	42
39	Modified graphene/polyaniline nanocomposites for supercapacitor application. <i>Macromolecular Research</i> , 2012, 20, 415-421.	1.0	41
40	Combined effect of expanded graphite and multiwall carbon nanotubes on the thermo mechanical, morphological as well as electrical conductivity of in situ bulk polymerized polystyrene composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2014, 56, 181-191.	3.8	41
41	Poly(aniline-co-pyrrole)-spaced graphene aerogel for advanced supercapacitor electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2018, 810, 154-160.	1.9	41
42	Facile synthesis of polypyrrole nanofiber and its enhanced electrochemical performances in different electrolytes. <i>EXPRESS Polymer Letters</i> , 2012, 6, 965-974.	1.1	39
43	Investigations on copper chloride doped polyaniline composites as efficient electrode materials for supercapacitor applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2013, 24, 576-585.	1.1	38
44	Defect-engineered mesoporous ternary nanoarchitecture of zinc-cobalt-oxide/nitrogen-doped graphene as anode material in lithium ion batteries. <i>Carbon</i> , 2015, 94, 455-463.	5.4	38
45	Novel approach for the selective dispersion of MWCNTs in the Nylon/SAN blend system. <i>Composites Part A: Applied Science and Manufacturing</i> , 2012, 43, 1242-1251.	3.8	35
46	Facile functionalization of boron nitride (BN) for the development of high-performance asymmetric supercapacitors. <i>New Journal of Chemistry</i> , 2020, 44, 8106-8119.	1.4	30
47	Current trends in MXene research: properties and applications. <i>Materials Chemistry Frontiers</i> , 2021, 5, 7134-7169.	3.2	30
48	Boron Nitride based Ternary Nanocomposites with Different Carbonaceous Materials Decorated by Polyaniline for Supercapacitor Application. <i>ChemistrySelect</i> , 2019, 4, 3672-3680.	0.7	29
49	One Pot Synthesis of Graphene by Exfoliation of Graphite in ODCB. <i>Graphene</i> , 2013, 02, 42-48.	0.3	26
50	Low temperature atomic layer deposited molybdenum nitride-Ni-foam composite: An electrode for efficient charge storage. <i>Electrochemistry Communications</i> , 2018, 93, 114-118.	2.3	25
51	Effect of nanosilica and polyphosphazene elastomer on the in situ fibrillation of liquid crystalline polymer (LCP) and thermo-mechanical properties of polybutylene terephthalate (PBT)/LCP blend system. <i>Materials &amp; Design</i> , 2012, 42, 184-191.	5.1	24
52	Investigations on doping of poly(3-methyl-thiophene) composites for supercapacitor applications. <i>Macromolecular Research</i> , 2012, 20, 351-357.	1.0	24
53	In Situ Synthesis of Graphene/Amine-Modified Graphene, Polypyrrole Composites in Presence of SrTiO <sub>3</sub> for Supercapacitor Applications. <i>Polymer-Plastics Technology and Engineering</i> , 2013, 52, 213-220.	1.9	24
54	From OD to 3D MXenes: their diverse syntheses, morphologies and applications. <i>Materials Chemistry Frontiers</i> , 2022, 6, 818-842.	3.2	24

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55	Copper chloride-doped polyaniline/multiwalled carbon nanotubes nanocomposites: Superior electrode material for supercapacitor applications. <i>Polymer Composites</i> , 2013, 34, 517-525.	2.3	23
56	Recent progress in trimetallic/ternary-metal oxides nanostructures: Misinterpretation/misconception of electrochemical data and devices. <i>Applied Materials Today</i> , 2022, 26, 101297.	2.3	23
57	Facile synthesis of NiCo <sub>2</sub> O <sub>4</sub> nanorods for electrocatalytic oxidation of methanol. <i>Journal of Saudi Chemical Society</i> , 2020, 24, 434-444.	2.4	22
58	MXene (Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> ) supported CoS <sub>2</sub> /CuCo <sub>2</sub> S <sub>4</sub> nanohybrid for highly stable asymmetric supercapacitor device. <i>Journal of Energy Storage</i> , 2022, 50, 104617.	3.9	20
59	Compatibilization of polyetherimide/liquid crystalline polymer blend using modified multiwalled carbon nanotubes and polyphosphazene as compatibilizers. <i>Journal of Applied Polymer Science</i> , 2012, 124, 629-637.	1.3	19
60	Induced conducting energy-levels in a boron nitride nano-framework for asymmetric supercapacitors in high charge-mobility ionic electrolytes. <i>Composites Part B: Engineering</i> , 2021, 212, 108728.	5.9	18
61	SnS <sub>2</sub> @Conducting Energy Level-Induced Functionalized Boron Nitride for an Asymmetric Supercapacitor. <i>Energy &amp; Fuels</i> , 2022, 36, 2248-2259.	2.5	16
62	MXene (Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> )/Amine-Functionalized Graphene-Supported Self-Assembled Co <sub>9</sub> S <sub>8</sub> Nanoflower for Ultrastable Hybrid Supercapacitor. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 7727-7738.	1.8	15
63	Carbon-based Multi-layered Films for Electronic Application: A Review. <i>Journal of Electronic Materials</i> , 2021, 50, 1845-1892.	1.0	14
64	Graphene/Poly(aniline-co-pyrrole) Nanocomposite: Potential Candidate for Supercapacitor and Microwave Absorbing Applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 6931-6941.	0.9	12
65	Ternary Nanohybrid of Ni <sub>3</sub> S <sub>2</sub> /CoMoS <sub>4</sub> /MnO <sub>2</sub> on Nickel Foam for Aqueous and Solid-State High-Performance Supercapacitors. <i>Nanomaterials</i> , 2022, 12, 1945.	1.9	12
66	Preparation and characterization of polypyrrole/modified multiwalled carbon nanotube nanocomposites polymerized <i>in situ</i> in the presence of barium titanate. <i>Journal of Applied Polymer Science</i> , 2013, 128, 698-705.	1.3	11
67	Present status of biomass-derived carbon-based composites for supercapacitor application. , 2020, , 373-415.		10
68	Synthesis and Electrochemical Characterization of Modified Graphene/Polypyrrole Nanocomposites. <i>Macromolecular Symposia</i> , 2012, 315, 177-187.	0.4	8
69	Effect of polyphosphazene and modified carbon nanotubes on the morphological and thermo-mechanical properties of polyphenylene sulfide and liquid crystalline polymer blend system. <i>Journal of Materials Science</i> , 2011, 46, 7672-7680.	1.7	7
70	Sonochemical synthesis and characterization of amine-modified graphene/conducting polymer nanocomposites. <i>Journal of Applied Polymer Science</i> , 2013, 128, 1476-1483.	1.3	6
71	Effects of TiO <sub>2</sub> and GO nanoparticles on the thermomechanical properties of bioactive poly-HEMA nanocomposites. <i>Iranian Polymer Journal (English Edition)</i> , 2021, 30, 1089-1099.	1.3	6
72	Doping Effect of Polyaniline/MWCNT Composites on Capacitance and Cyclic Stability of Supercapacitors. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 2704-2710.	0.9	2

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73	Present Status and Prospect of Graphene Research. Carbon Nanostructures, 2019, , 1-29.	0.1	2
74	Recent Progress in Electrospinning Technologies for Graphene-Based Materials. Carbon Nanostructures, 2021, , 1-34.	0.1	0
75	How to Enhance the Performance of Graphene/Metal Oxide Nanocomposite Supercapacitors. ECS Meeting Abstracts, 2017, , .	0.0	0
76	Nanocomposites of Metal Oxide@Graphene@Ni Foam for Energy Storage Applications. ECS Meeting Abstracts, 2017, , .	0.0	0