

Susanta Sinha Roy

List of Publications by Year in descending order

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56
papers

2,385
citations

279701

23
h-index

206029

48
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58
all docs

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docs citations

58
times ranked

3889
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrochemical impedimetric analysis of different dimensional (0D–2D) carbon nanomaterials for effective biosensing of L-tyrosine. <i>Measurement Science and Technology</i> , 2022, 33, 014002.	1.4	2
2	Hydrothermally Synthesized Sulfur-Doped Graphite as Supercapacitor Electrode Materials. <i>ACS Applied Nano Materials</i> , 2022, 5, 3548-3557.	2.4	9
3	High-Performance MnO ₂ /Nanowire/MoS ₂ /Nanosheet Composite for a Symmetrical Solid-State Supercapacitor. <i>ACS Omega</i> , 2022, 7, 16895-16905.	1.6	22
4	Disposable Paper-Based Biosensors: Optimizing the Electrochemical Properties of Laser-Induced Graphene. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 31109-31120.	4.0	16
5	Potentiometric ion-selective sensors based on UV-ozone irradiated laser-induced graphene electrode. <i>Electrochimica Acta</i> , 2021, 387, 138341.	2.6	16
6	Polarity dependent electrowetting for directional transport of water through patterned superhydrophobic laser induced graphene fibers. <i>Carbon</i> , 2021, 182, 605-614.	5.4	21
7	Single-step synthesis of core-shell diamond-graphite hybrid nano-needles as efficient supercapacitor electrode. <i>Electrochimica Acta</i> , 2021, 397, 139267.	2.6	4
8	Metal-oxide nanomaterials recycled from e-waste and metal industries: A concise review of applications in energy storage, catalysis, and sensing. <i>International Journal of Energy Research</i> , 2021, 45, 8091-8102.	2.2	11
9	Effect of Inlet Contactors of Splitting Distributors for Parallel Microchannels. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 16682-16700.	1.8	4
10	Nitrogen-Incorporated Boron-Doped Nanocrystalline Diamond Nanowires for Microplasma Illumination. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 55687-55699.	4.0	9
11	Microfluidic Affinity Sensor Based on a Molecularly Imprinted Polymer for Ultrasensitive Detection of Chlorpyrifos. <i>ACS Omega</i> , 2020, 5, 31765-31773.	1.6	27
12	Single-step grown boron doped nanocrystalline diamond-carbon nanogress hybrid as an efficient supercapacitor electrode. <i>Nanoscale</i> , 2020, 12, 10117-10126.	2.8	23
13	Recycled Red Mud-Decorated Porous 3D Graphene for High-Energy Flexible Micro-Supercapacitor. <i>Advanced Sustainable Systems</i> , 2020, 4, 1900133.	2.7	25
14	Cost effective liquid phase exfoliation of MoS ₂ nanosheets and photocatalytic activity for wastewater treatment enforced by visible light. <i>Scientific Reports</i> , 2020, 10, 10759.	1.6	100
15	Potential use of smartly engineered red mud nanoparticles for removal of arsenate and pathogens from drinking water. <i>SN Applied Sciences</i> , 2020, 2, 1.	1.5	6
16	Red Mud-Reduced Graphene Oxide Nanocomposites for the Electrochemical Sensing of Arsenic. <i>ACS Applied Nano Materials</i> , 2020, 3, 4084-4090.	2.4	21
17	Direct synthesis of electrowettable nanostructured hybrid diamond. <i>Journal of Materials Chemistry A</i> , 2019, 7, 19026-19036.	5.2	9
18	Laser-Patternable Graphene Field Emitters for Plasma Displays. <i>Nanomaterials</i> , 2019, 9, 1493.	1.9	5

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19	3D Hierarchical Boron-Doped Diamond-Multilayered Graphene Nanowalls as an Efficient Supercapacitor Electrode. <i>Journal of Physical Chemistry C</i> , 2019, 123, 15458-15466.	1.5	35
20	Effective Utilization of Waste Red Mud for High Performance Supercapacitor Electrodes. <i>Global Challenges</i> , 2019, 3, 1800066.	1.8	24
21	Evaluating the fabric performance and antibacterial properties of 3-D piezoelectric spacer fabric. <i>Journal of the Textile Institute</i> , 2018, 109, 1613-1619.	1.0	3
22	Biofilm formation by <i>Exiguobacterium</i> sp. DR11 and DR14 alter polystyrene surface properties and initiate biodegradation. <i>RSC Advances</i> , 2018, 8, 37590-37599.	1.7	68
23	Fabrication of efficient dye-sensitized solar cells with photoanode containing TiO ₂ @Au and TiO ₂ @Ag plasmonic nanocomposites. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 18209-18220.	1.1	15
24	Fabrication of free-standing graphene oxide films using a facile approach toluene swollen paraffin peeling and green reduction of these films into highly conductive reduced graphene oxide films. <i>Chemical Engineering Journal</i> , 2018, 354, 149-161.	6.6	13
25	Nanostructured nitrogen doped diamond for the detection of toxic metal ions. <i>Electrochimica Acta</i> , 2018, 283, 1871-1878.	2.6	24
26	Enhanced efficiency of PbS quantum dot-sensitized solar cells using plasmonic photoanode. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	0.8	9
27	Fabrication, microstructure, and enhanced thermionic electron emission properties of vertically aligned nitrogen-doped nanocrystalline diamond nanorods. <i>MRS Communications</i> , 2018, 8, 1311-1320.	0.8	1
28	Novel π -conjugated iron oxide/reduced graphene oxide nanocomposites for high performance electrochemical supercapacitors. <i>RSC Advances</i> , 2017, 7, 327-335.	1.7	30
29	Terephthalic acid capped iron oxide nanoparticles for sensitive electrochemical detection of heavy metal ions in water. <i>Journal of Electroanalytical Chemistry</i> , 2017, 788, 91-98.	1.9	103
30	Experimental and theoretical analysis of a hybrid solar thermoelectric generator with forced convection cooling. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 015501.	1.3	31
31	Aloe vera assisted facile green synthesis of reduced graphene oxide for electrochemical and dye removal applications. <i>RSC Advances</i> , 2017, 7, 26680-26688.	1.7	116
32	Probing the flat band potential and effective electronic carrier density in vertically aligned nitrogen doped diamond nanorods via electrochemical method. <i>Electrochimica Acta</i> , 2017, 246, 68-74.	2.6	15
33	Tuning the Electronic and Magnetic Properties of Nitrogen-Functionalized Few-Layered Graphene Nanoflakes. <i>Journal of Physical Chemistry C</i> , 2017, 121, 14073-14082.	1.5	24
34	Structural and compositional changes in single wall carbon nanotube ensemble upon exposure to microwave plasma. <i>Journal of Applied Physics</i> , 2017, 122, 154303.	1.1	1
35	Application of oil-swollen surfactant gels as a growth medium for metal nanoparticle synthesis, and as an exfoliation medium for preparation of graphene. <i>Journal of Colloid and Interface Science</i> , 2016, 474, 41-50.	5.0	5
36	Performance analysis of a hybrid solar thermoelectric generator. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2016, 38, 2977-2984.	1.2	10

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37	Plasma modification of the electronic and magnetic properties of vertically aligned bi/tri-layered graphene nanoflakes. RSC Advances, 2016, 6, 70913-70924.	1.7	5
38	Multifunctional reduced graphene oxide coated cloths for oil/water separation and antibacterial application. RSC Advances, 2016, 6, 62760-62767.	1.7	21
39	Growth, structural and plasma illumination properties of nanocrystalline diamond-decorated graphene nanoflakes. RSC Advances, 2016, 6, 63178-63184.	1.7	19
40	Fast and facile preparation of CTAB based gels and their applications in Au and Ag nanoparticles synthesis. Materials Chemistry and Physics, 2015, 156, 105-112.	2.0	10
41	Grape extract assisted green synthesis of reduced graphene oxide for water treatment application. Materials Letters, 2015, 160, 355-358.	1.3	98
42	EXPERIMENTAL STUDIES OF SURFACE-DRIVEN CAPILLARY FLOW IN PMMA MICROFLUIDIC DEVICES PREPARED BY DIRECT BONDING TECHNIQUE AND PASSIVE SEPARATION OF MICROPARTICLES IN MICROFLUIDIC LABORATORY-ON-A-CHIP SYSTEMS. Surface Review and Letters, 2015, 22, 1550050.	0.5	4
43	Optical, structural, catalytic and electrochemical properties of the Au nanoparticles synthesized using CTAB based gels. Journal of Materials Science: Materials in Electronics, 2015, 26, 7515-7522.	1.1	2
44	Role of graphene/metal oxide composites as photocatalysts, adsorbents and disinfectants in water treatment: a review. RSC Advances, 2014, 4, 3823-3851.	1.7	556
45	Diameter control of single wall carbon nanotubes synthesized using chemical vapor deposition. Applied Surface Science, 2014, 321, 70-79.	3.1	13
46	Recent advances in thermoelectric materials and solar thermoelectric generators – a critical review. RSC Advances, 2014, 4, 46860-46874.	1.7	122
47	Graphene Supported Graphene/Graphene Bilayer Nanostructure Material for Spintronics. Scientific Reports, 2014, 4, 3862.	1.6	55
48	Electrochemical and oxygen reduction properties of pristine and nitrogen-doped few layered graphene nanoflakes (FLGs). Journal of Solid State Electrochemistry, 2013, 17, 2139-2149.	1.2	29
49	Dynamics of liquid droplets in an evaporating drop: liquid droplet “coffee stain” effect. RSC Advances, 2012, 2, 8390.	1.7	20
50	Nanocrystalline ruthenium oxide dispersed Few Layered Graphene (FLG) nanoflakes as supercapacitor electrodes. Journal of Materials Chemistry, 2012, 22, 14944.	6.7	136
51	Exploring the fundamental effects of deposition time on the microstructure of graphene nanoflakes by Raman scattering and X-ray diffraction. CrystEngComm, 2011, 13, 312-318.	1.3	56
52	Enhanced and Stable Field Emission from in Situ Nitrogen-Doped Few-Layered Graphene Nanoflakes. Journal of Physical Chemistry C, 2011, 115, 5366-5372.	1.5	156
53	Graphene oxide for electrochemical sensing applications. Journal of Materials Chemistry, 2011, 21, 14725.	6.7	119
54	Microstructural and electrochemical properties of vertically aligned few layered graphene (FLG) nanoflakes and their application in methanol oxidation. Materials Chemistry and Physics, 2011, 129, 1051-1057.	2.0	69

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55	Enhanced Field Emission and Improved Supercapacitor Obtained from Plasma-Modified Bucky Paper. <i>Small</i> , 2011, 7, 688-693.	5.2	27
56	Dielectric Properties of a Ferroelectric Liquid Crystal Mixture Under Bias Electric Field. <i>Molecular Crystals and Liquid Crystals</i> , 1995, 265, 577-590.	0.3	10