

# Susanta Sinha Roy

## List of Publications by Year in descending order

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56  
papers

2,385  
citations

279487

23  
h-index

205818

48  
g-index

58  
all docs

58  
docs citations

58  
times ranked

3889  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Nanocrystalline ruthenium oxide dispersed Few Layered Graphene (FLG) nanoflakes as supercapacitor electrodes. Journal of Materials Chemistry, 2012, 22, 14944.	6.7	136
4	Recent advances in thermoelectric materials and solar thermoelectric generators – a critical review. RSC Advances, 2014, 4, 46860-46874.	1.7	122
5	Graphene oxide for electrochemical sensing applications. Journal of Materials Chemistry, 2011, 21, 14725.	6.7	119
6	Aloe vera assisted facile green synthesis of reduced graphene oxide for electrochemical and dye removal applications. RSC Advances, 2017, 7, 26680-26688.	1.7	116
7	Terephthalic acid capped iron oxide nanoparticles for sensitive electrochemical detection of heavy metal ions in water. Journal of Electroanalytical Chemistry, 2017, 788, 91-98.	1.9	103
8	Cost effective liquid phase exfoliation of MoS2 nanosheets and photocatalytic activity for wastewater treatment enforced by visible light. Scientific Reports, 2020, 10, 10759.	1.6	100
9	Grape extract assisted green synthesis of reduced graphene oxide for water treatment application. Materials Letters, 2015, 160, 355-358.	1.3	98
10	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
11	Biofilm formation by <i>Exiguobacterium</i> sp. DR11 and DR14 alter polystyrene surface properties and initiate biodegradation. RSC Advances, 2018, 8, 37590-37599.	1.7	68
12	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
13	Graphene Supported Graphene/Graphene Bilayer Nanostructure Material for Spintronics. Scientific Reports, 2014, 4, 3862.	1.6	55
14	3D Hierarchical Boron-Doped Diamond-Multilayered Graphene Nanowalls as an Efficient Supercapacitor Electrode. Journal of Physical Chemistry C, 2019, 123, 15458-15466.	1.5	35
15	Experimental and theoretical analysis of a hybrid solar thermoelectric generator with forced convection cooling. Journal Physics D: Applied Physics, 2017, 50, 015501.	1.3	31
16	Novel $\pi$ -conjugated iron oxide/reduced graphene oxide nanocomposites for high performance electrochemical supercapacitors. RSC Advances, 2017, 7, 327-335.	1.7	30
17	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
18	Enhanced Field Emission and Improved Supercapacitor Obtained from Plasma-Modified Bucky Paper. Small, 2011, 7, 688-693.	5.2	27

#	ARTICLE	IF	CITATIONS
19	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
20	Recycled Red Mudâ€“Decorated Porous 3D Graphene for Highâ€“Energy Flexible Microâ€“Supercapacitor. <i>Advanced Sustainable Systems</i> , 2020, 4, 1900133.	2.7	25
21	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
22	Nanostructured nitrogen doped diamond for the detection of toxic metal ions. <i>Electrochimica Acta</i> , 2018, 283, 1871-1878.	2.6	24
23	Effective Utilization of Waste Red Mud for High Performance Supercapacitor Electrodes. <i>Global Challenges</i> , 2019, 3, 1800066.	1.8	24
24	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
25	High-Performance MnO <sub>2</sub> Nanowire/MoS <sub>2</sub> Nanosheet Composite for a Symmetrical Solid-State Supercapacitor. <i>ACS Omega</i> , 2022, 7, 16895-16905.	1.6	22
26	Multifunctional reduced graphene oxide coated cloths for oil/water separation and antibacterial application. <i>RSC Advances</i> , 2016, 6, 62760-62767.	1.7	21
27	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
28	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
29	Dynamics of liquid droplets in an evaporating drop: liquid droplet â€œcoffee stainâ€œ effect. <i>RSC Advances</i> , 2012, 2, 8390.	1.7	20
30	Growth, structural and plasma illumination properties of nanocrystalline diamond-decorated graphene nanoflakes. <i>RSC Advances</i> , 2016, 6, 63178-63184.	1.7	19
31	Potentiometric ion-selective sensors based on UV-ozone irradiated laser-induced graphene electrode. <i>Electrochimica Acta</i> , 2021, 387, 138341.	2.6	16
32	Disposable Paper-Based Biosensors: Optimizing the Electrochemical Properties of Laser-Induced Graphene. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 31109-31120.	4.0	16
33	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
34	Fabrication of efficient dye-sensitized solar cells with photoanode containing TiO <sub>2</sub> â€“Au and TiO <sub>2</sub> â€“Ag plasmonic nanocomposites. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 18209-18220.	1.1	15
35	Diameter control of single wall carbon nanotubes synthesized using chemical vapor deposition. <i>Applied Surface Science</i> , 2014, 321, 70-79.	3.1	13
36	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

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37	Metal oxide nanomaterials recycled from waste and metal industries: A concise review of applications in energy storage, catalysis, and sensing. International Journal of Energy Research, 2021, 45, 8091-8102.	2.2	11
38	Dielectric Properties of a Ferroelectric Liquid Crystal Mixture Under Bias Electric Field. Molecular Crystals and Liquid Crystals, 1995, 265, 577-590.	0.3	10
39	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
40	Performance analysis of a hybrid solar thermoelectric generator. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2016, 38, 2977-2984.	1.2	10
41	Enhanced efficiency of PbS quantum dot-sensitized solar cells using plasmonic photoanode. Journal of Nanoparticle Research, 2018, 20, 1.	0.8	9
42	Direct synthesis of electrowettable nanostructured hybrid diamond. Journal of Materials Chemistry A, 2019, 7, 19026-19036.	5.2	9
43	Nitrogen-Incorporated Boron-Doped Nanocrystalline Diamond Nanowires for Microplasma Illumination. ACS Applied Materials & Interfaces, 2021, 13, 55687-55699.	4.0	9
44	Hydrothermally Synthesized Sulfur-Doped Graphite as Supercapacitor Electrode Materials. ACS Applied Nano Materials, 2022, 5, 3548-3557.	2.4	9
45	Potential use of smartly engineered red mud nanoparticles for removal of arsenate and pathogens from drinking water. SN Applied Sciences, 2020, 2, 1.	1.5	6
46	Application of oil-swollen surfactant gels as a growth medium for metal nanoparticle synthesis, and as an exfoliation medium for preparation of graphene. Journal of Colloid and Interface Science, 2016, 474, 41-50.	5.0	5
47	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
48	Laser-Patternable Graphene Field Emitters for Plasma Displays. Nanomaterials, 2019, 9, 1493.	1.9	5
49	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
50	Single-step synthesis of core-shell diamond-graphite hybrid nano-needles as efficient supercapacitor electrode. Electrochimica Acta, 2021, 397, 139267.	2.6	4
51	Effect of Inlet Contactors of Splitting Distributors for Parallel Microchannels. Industrial & Engineering Chemistry Research, 2021, 60, 16682-16700.	1.8	4
52	Evaluating the fabric performance and antibacterial properties of 3-D piezoelectric spacer fabric. Journal of the Textile Institute, 2018, 109, 1613-1619.	1.0	3
53	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
54	Electrochemical impedimetric analysis of different dimensional (0D-2D) carbon nanomaterials for effective biosensing of L-tyrosine. Measurement Science and Technology, 2022, 33, 014002.	1.4	2

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55	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
56	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