

# Saikat Talapatra

## List of Publications by Year in descending order

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Version: 2024-02-01

65  
papers

3,317  
citations

201385

27  
h-index

143772

57  
g-index

66  
all docs

66  
docs citations

66  
times ranked

6579  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photosensor Device Based on Few-Layered WS <sub>2</sub> Films. <i>Advanced Functional Materials</i> , 2013, 23, 5511-5517.	7.8	546
2	Stable Aqueous Dispersions of Noncovalently Functionalized Graphene from Graphite and their Multifunctional High-Performance Applications. <i>Nano Letters</i> , 2010, 10, 4295-4301.	4.5	449
3	Aligned Carbon Nanotube-Polymer Hybrid Architectures for Diverse Flexible Electronic Applications. <i>Nano Letters</i> , 2006, 6, 413-418.	4.5	306
4	First-Principles Study of Defect-Induced Magnetism in Carbon. <i>Physical Review Letters</i> , 2007, 99, 107201.	2.9	170
5	Chemical Vapor Deposition Synthesized Atomically Thin Molybdenum Disulfide with Optoelectronic-Grade Crystalline Quality. <i>ACS Nano</i> , 2015, 9, 8822-8832.	7.3	132
6	Carbon Nanotube-MoS <sub>2</sub> Composites as Solid Lubricants. <i>ACS Applied Materials &amp; Interfaces</i> , 2009, 1, 735-739.	4.0	128
7	Electrochemical Characterization of Liquid Phase Exfoliated Two-Dimensional Layers of Molybdenum Disulfide. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 2125-2130.	4.0	121
8	Temperature dependent electrical transport of disordered reduced graphene oxide. <i>2D Materials</i> , 2014, 1, 011008.	2.0	86
9	Effect of 1-Pyrene Carboxylic-Acid Functionalization of Graphene on Its Capacitive Energy Storage. <i>Journal of Physical Chemistry C</i> , 2012, 116, 20688-20693.	1.5	85
10	Electrochemical double layer capacitor electrodes using aligned carbon nanotubes grown directly on metals. <i>Nanotechnology</i> , 2009, 20, 395202.	1.3	80
11	Air-assisted growth of ultra-long carbon nanotube bundles. <i>Nanotechnology</i> , 2008, 19, 455609.	1.3	66
12	Charge-injection-induced dynamic screening and origin of hysteresis in field-modulated transport in single-wall carbon nanotubes. <i>Applied Physics Letters</i> , 2006, 89, 162108.	1.5	65
13	Transforming collagen wastes into doped nanocarbons for sustainable energy applications. <i>Green Chemistry</i> , 2012, 14, 1689.	4.6	65
14	Tunable Electronics in Large-Area Atomic Layers of Boron-Nitrogen-Carbon. <i>Nano Letters</i> , 2013, 13, 3476-3481.	4.5	65
15	Adsorption energy of oxygen molecules on graphene and two-dimensional tungsten disulfide. <i>Scientific Reports</i> , 2017, 7, 1774.	1.6	62
16	Ultrafast Intrinsic Photoresponse and Direct Evidence of Sub-gap States in Liquid Phase Exfoliated MoS <sub>2</sub> Thin Films. <i>Scientific Reports</i> , 2015, 5, 11272.	1.6	57
17	Investigating Photoinduced Charge Transfer in Carbon Nanotube-Perylene-Quantum Dot Hybrid Nanocomposites. <i>ACS Nano</i> , 2010, 4, 6883-6893.	7.3	55
18	Quantitative analysis of hysteresis in carbon nanotube field-effect devices. <i>Applied Physics Letters</i> , 2006, 89, 132118.	1.5	53

#	ARTICLE	IF	CITATIONS
19	Viable route towards large-area 2D MoS <sub>2</sub> using magnetron sputtering. 2D Materials, 2017, 4, 021002.	2.0	40
20	2D Tungsten Chalcogenides: Synthesis, Properties and Applications. Advanced Materials Interfaces, 2020, 7, 2000002.	1.9	39
21	Gas Adsorption on HiPco Nanotubes: Surface Area Determinations, and Neon Second Layer Data. Nano Letters, 2004, 4, 1133-1137.	4.5	38
22	Adsorption and Desorption of Chlorinated Compounds from Pristine and Thermally Treated Multiwalled Carbon Nanotubes. Journal of Physical Chemistry C, 2011, 115, 4552-4557.	1.5	35
23	Aligned carbon nanotube/zinc oxide nanowire hybrids as high performance electrodes for supercapacitor applications. Journal of Applied Physics, 2017, 121, .	1.1	35
24	Recent advances in investigations of the electronic and optoelectronic properties of group III, IV, and V selenide based binary layered compounds. Journal of Materials Chemistry C, 2017, 5, 11214-11225.	2.7	34
25	Double resonance Raman study of disorder in CVD-grown single-walled carbon nanotubes. Carbon, 2011, 49, 1318-1325.	5.4	31
26	Conversion of Industrial Bio-Waste into Useful Nanomaterials. ACS Sustainable Chemistry and Engineering, 2013, 1, 619-626.	3.2	30
27	Label-free as-grown double wall carbon nanotubes bundles for Salmonella typhimurium immunoassay. Chemistry Central Journal, 2013, 7, 102.	2.6	28
28	Carbon Nanotubes and Graphene Nanoribbons: Potentials for Nanoscale Electrical Interconnects. Electronics (Switzerland), 2013, 2, 280-314.	1.8	28
29	Carbon Nanotube Based Robust and Flexible Solid-State Supercapacitor. ACS Applied Materials & Interfaces, 2021, 13, 56004-56013.	4.0	27
30	Application of Carbon Nanotubes for Removing Organic Contaminants from Water. Materials Express, 2011, 1, 183-200.	0.2	24
31	Fast photoresponse and high detectivity in copper indium selenide (CuIn <sub>7</sub> Se <sub>11</sub> ) phototransistors. 2D Materials, 2018, 5, 015001.	2.0	24
32	Effects of magnetic and structural phase transitions on the normal and anomalous Hall effects in Ni-Mn-In-B Heusler alloys. Physical Review B, 2020, 101, .	1.1	24
33	Gate-Induced Metal-Insulator Transition in 2D van der Waals Layers of Copper Indium Selenide Based Field-Effect Transistors. ACS Nano, 2019, 13, 13413-13420.	7.3	20
34	Manganese oxide based Hybrid nanofibers for Supercapacitors. Materials Letters, 2015, 148, 142-146.	1.3	18
35	Engineering Photophenomena in Large, 3D Structures Composed of Self-Assembled van der Waals Heterostructure Flakes. Advanced Optical Materials, 2015, 3, 1551-1556.	3.6	17
36	Label-free Electrochemical Detection of CGG Repeats on Inkjet Printable 2D Layers of MoS <sub>2</sub> . ACS Applied Materials & Interfaces, 2020, 12, 52156-52165.	4.0	15

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37	Detection of Nanoscale Magnetic Activity Using a Single Carbon Nanotube. Nano Letters, 2008, 8, 4498-4505.	4.5	14
38	Fractional photo-current dependence of graphene quantum dots prepared from carbon nanotubes. Physical Chemistry Chemical Physics, 2015, 17, 24566-24569.	1.3	14
39	Hydro-deoxygenation of CO on functionalized carbon nanotubes for liquid fuels production. Carbon, 2017, 121, 274-284.	5.4	14
40	Phase diagram and magnetocaloric effects in Ni <sub>50</sub> Mn <sub>35</sub> (In <sub>1-x</sub> Cr <sub>x</sub> ) <sub>15</sub> and (Mn <sub>1-x</sub> Cr <sub>x</sub> )NiGe <sub>1.05</sub> alloys. Journal of Applied Physics, 2014, 115, 17A922.	1.1	12
41	L <sup>1/4</sup> -ttinger Liquid to Al <sup>TM</sup> tshuler <sup>ˆ</sup> Aronov Transition in Disordered, Many-Channel Carbon Nanotubes. ACS Nano, 2009, 3, 207-212.	7.3	11
42	Carbon nanotube-textured sand for controlling bioavailability of contaminated sediments. Nano Research, 2010, 3, 412-422.	5.8	11
43	Importance of Cr <sub>2</sub> O <sub>3</sub> layer for growth of carbon nanotubes on superalloys. Carbon, 2010, 48, 844-853.	5.4	11
44	Effect of underlying boron nitride thickness on photocurrent response in molybdenum disulfide - boron nitride heterostructures. Journal of Materials Research, 2016, 31, 893-899.	1.2	11
45	Low temperature photoconductivity of few layer <i>p</i> -type tungsten diselenide (WSe <sub>2</sub> ) field-effect transistors (FETs). Nanotechnology, 2018, 29, 484002.	1.3	11
46	Electric Double Layer Field-Effect Transistors Using Two-Dimensional (2D) Layers of Copper Indium Selenide (CuIn <sub>7</sub> Se <sub>11</sub> ). Electronics (Switzerland), 2019, 8, 645.	1.8	10
47	Ultralong Aligned Multi-Walled Carbon Nanotube for Electrochemical Sensing. Journal of Nanoscience and Nanotechnology, 2008, 8, 2085-2090.	0.9	9
48	The influence of hydrostatic pressure and annealing conditions on the magnetostructural transitions in MnCoGe. Journal of Applied Physics, 2021, 129, .	1.1	9
49	High Performance Graphene-Based Electrochemical Double Layer Capacitors Using 1-Butyl-1-methylpyrrolidinium tris (pentafluoroethyl) trifluorophosphate Ionic Liquid as an Electrolyte. Electronics (Switzerland), 2018, 7, 229.	1.8	8
50	High Adsorption of Benzoic Acid on Single Walled Carbon Nanotube Bundles. Scientific Reports, 2020, 10, 10013.	1.6	8
51	Understanding the Role of Sulfur in Tuning the Diameter and Morphology in the Chemical Vapor Deposition Growth of Carbon Nanotubes. Materials Express, 2011, 1, 160-166.	0.2	7
52	Sensors: Photosensor Device Based on Few-Layered WS <sub>2</sub> Films (Adv. Funct. Mater. 44/2013). Advanced Functional Materials, 2013, 23, 5510-5510.	7.8	7
53	High photoresponse of individual WS <sub>2</sub> nanowire-nanoflake hybrid materials. Applied Physics Letters, 2018, 112, .	1.5	7
54	Influence of channel thickness on charge transport behavior of multi-layer indium selenide (InSe) field-effect transistors. 2D Materials, 2020, 7, 025030.	2.0	7

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55	Photogating-driven enhanced responsivity in a few-layered ReSe <sub>2</sub> phototransistor. Journal of Materials Chemistry C, 2021, 9, 12168-12176.	2.7	7
56	Broadband photocurrent spectroscopy and temperature dependence of band gap of few-layer indium selenide (InSe). Emergent Materials, 2021, 4, 1029-1036.	3.2	7
57	Adsorption of aromatic carboxylic acids on carbon nanotubes: impact of surface functionalization, molecular size and structure. Environmental Sciences: Processes and Impacts, 2019, 21, 2109-2117.	1.7	6
58	Magnetic properties and phase transitions of gadolinium-infused carbon nanotubes. Journal of Applied Physics, 2013, 113, .	1.1	5
59	In Vivo Partial Restoration of Neural Activity across Severed Mouse Spinal Cord Bridged with Ultralong Carbon Nanotubes. ACS Applied Bio Materials, 2021, 4, 4071-4078.	2.3	3
60	Role of layer thickness and field-effect mobility on photoresponsivity of indium selenide (InSe)-based phototransistors. Oxford Open Materials Science, 2020, 1, .	0.5	3
61	Laser THz Emission Spectroscopy of Gas Adsorption-Desorption Dynamics in Tungsten Disulfide Nanosheets. E-Journal of Surface Science and Nanotechnology, 2016, 14, 78-82.	0.1	2
62	Electronic and optoelectronic properties of the heterostructure devices composed of two-dimensional layered materials. , 2020, , 151-193.		2
63	Adsorption of Benzoic Acid: Structural Organization on the Surfaces of Pristine and Functionalized Single-Walled Carbon Nanotubes. ACS ES&T Water, 2021, 1, 251-258.	2.3	2
64	Magnetic field dependence of the martensitic transition and magnetocaloric effects in Ni <sub>49</sub> BiMn <sub>35</sub> In <sub>15</sub> . AIP Advances, 2020, 10, 015138.	0.6	1
65	NMR studies of the ground states of Ni <sub>50-x</sub> CoxMn <sub>35</sub> In <sub>15</sub> (x=1, 2.5) and Ni <sub>45</sub> Co <sub>5</sub> Mn <sub>37</sub> In <sub>13</sub> Heusler alloys. AIP Advances, 2020, 10, 015328.	0.6	0