

# Sankha Mukherjee

## List of Publications by Year in descending order

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Version: 2024-02-01

40  
papers

1,887  
citations

361413

20  
h-index

315739

38  
g-index

40  
all docs

40  
docs citations

40  
times ranked

2732  
citing authors

#	ARTICLE	IF	CITATIONS
1	Determining the limiting factor of the electrochemical stability window for PEO-based solid polymer electrolytes: main chain or terminal "OH group?. Energy and Environmental Science, 2020, 13, 1318-1325.	30.8	342
2	Phosphorene as a Polysulfide Immobilizer and Catalyst in High-Performance Lithium-Sulfur Batteries. Advanced Materials, 2017, 29, 1602734.	21.0	289
3	Ultrahigh Storage and Fast Diffusion of Na and K in Blue Phosphorene Anodes. ACS Applied Materials & Interfaces, 2018, 10, 8630-8639.	8.0	143
4	Fatigue of graphene. Nature Materials, 2020, 19, 405-411.	27.5	110
5	Mechanical properties of monolayer penta-graphene and phagraphene: a first-principles study. Physical Chemistry Chemical Physics, 2016, 18, 26736-26742.	2.8	106
6	Adsorption and Diffusion of Lithium and Sodium on Defective Rhenium Disulfide: A First Principles Study. ACS Applied Materials & Interfaces, 2018, 10, 5373-5384.	8.0	92
7	Interface-assisted in-situ growth of halide electrolytes eliminating interfacial challenges of all-inorganic solid-state batteries. Nano Energy, 2020, 76, 105015.	16.0	80
8	Nonlinear fracture toughness measurement and crack propagation resistance of functionalized graphene multilayers. Science Advances, 2018, 4, eaao7202.	10.3	72
9	Adsorption and diffusion of lithium polysulfides over blue phosphorene for Li-S batteries. Nanoscale, 2018, 10, 21335-21352.	5.6	69
10	Hydrogen storage in Li, Na and Ca decorated and defective borophene: a first principles study. RSC Advances, 2018, 8, 20748-20757.	3.6	64
11	Deciphering Interfacial Chemical and Electrochemical Reactions of Sulfide-Based All-Solid-State Batteries. Advanced Energy Materials, 2021, 11, 2100210.	19.5	63
12	A first principles study of hydrogen storage in lithium decorated defective phosphorene. International Journal of Hydrogen Energy, 2017, 42, 23018-23027.	7.1	56
13	Toughening of graphene-based polymer nanocomposites via tuning chemical functionalization. Composites Science and Technology, 2020, 194, 108140.	7.8	44
14	Two-dimensional boron as an impressive lithium-sulphur battery cathode material. Energy Storage Materials, 2018, 13, 80-87.	18.0	38
15	New insights into the structure-nonlinear mechanical property relations for graphene allotropes. Carbon, 2016, 110, 443-457.	10.3	32
16	Phosphorene as a Catalyst for Highly Efficient Nonaqueous Li-Air Batteries. ACS Applied Materials & Interfaces, 2019, 11, 499-510.	8.0	27
17	Quantifying the mesoscopic shear strains in plane strain compressed polycrystalline zirconium. Acta Materialia, 2014, 69, 265-274.	7.9	25
18	Electrolyte-Phobic Surface for the Next-Generation Nanostructured Battery Electrodes. Nano Letters, 2020, 20, 7455-7462.	9.1	25

#	ARTICLE	IF	CITATIONS
19	Atomistic Origins of Ductility Enhancement in Metal Oxide Coated Silicon Nanowires for Li-ion Battery Anodes. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700920.	3.7	23
20	Role of graphene in enhancing the mechanical properties of TiO <sub>2</sub> /graphene heterostructures. <i>Nanoscale</i> , 2017, 9, 11678-11684.	5.6	22
21	Effect of lattice stacking orientation and local thickness variation on the mechanical behavior of few layer graphene oxide. <i>Carbon</i> , 2018, 136, 168-175.	10.3	21
22	Phase Evolution of a Prenucleator for Fast Li Nucleation in All-Solid-State Lithium Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 2001191.	19.5	17
23	Materials perspective on new lithium chlorides and bromides: insights into thermo-physical properties. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 22758-22767.	2.8	15
24	Fatigue resistance of atomically thin graphene oxide. <i>Carbon</i> , 2021, 183, 780-788.	10.3	14
25	Dramatic improvement in the performance of graphene as Li/Na battery anodes with suitable electrolytic solvents. <i>Carbon</i> , 2020, 161, 570-576.	10.3	12
26	Strength of graphene with curvilinear grain boundaries. <i>Carbon</i> , 2020, 158, 808-817.	10.3	11
27	Two-dimensional square metal organic framework as promising cathode material for lithium-sulfur battery with high theoretical energy density. <i>Journal of Colloid and Interface Science</i> , 2022, 613, 435-446.	9.4	11
28	Interplay between Thermal Stress and Interface Binding on Fracture of WS <sub>2</sub> Monolayer with Triangular Voids. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 16876-16884.	8.0	10
29	An Application of Decision Tree-Based Twin Support Vector Machines to Classify Dephosphorization in BOF Steelmaking. <i>Metals</i> , 2020, 10, 25.	2.3	9
30	Understanding Dephosphorization in Basic Oxygen Furnaces (BOFs) Using Data Driven Modeling Techniques. <i>Metals</i> , 2019, 9, 955.	2.3	8
31	Elastomer-like deformation in high-Poisson's-ratio graphene allotropes may allow tensile strengths beyond theoretical cohesive strength limits. <i>Carbon</i> , 2019, 143, 752-761.	10.3	8
32	Methods for Atomistic Simulations of Linear and Nonlinear Damping in Nanomechanical Resonators. <i>Journal of Microelectromechanical Systems</i> , 2015, 24, 1462-1470.	2.5	7
33	Least Squares Twin Support Vector Machines to Classify End-Point Phosphorus Content in BOF Steelmaking. <i>Metals</i> , 2022, 12, 268.	2.3	6
34	Electrostatic Deposition of Large-Surface Graphene. <i>Materials</i> , 2018, 11, 116.	2.9	5
35	Mechanical reliability of monolayer MoS <sub>2</sub> and WSe <sub>2</sub> . <i>Matter</i> , 2022, 5, 2975-2989.	10.0	5
36	Thermoconformational Behavior of Cellulose Nanofiber Films as a Device Substrate and Their Superior Flexibility and Durability to Glass. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 40853-40862.	8.0	4

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37	Atomistic simulations of material damping in amorphous silicon nanoresonators. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 055015.	2.0	1
38	Chemical and molecular structure transformations in atomistic conformation of cellulose nanofibers under thermal environment. Npj Materials Degradation, 2022, 6, .	5.8	1
39	Local Strain Calculations Using Electron Backscattered Diffraction (EBSD) Measurements and Digital Image Processing. Materials Science Forum, 0, 702-703, 562-565.	0.3	0
40	Compression-induced resistance of singlet oxygen dissociation on phosphorene. Physical Review Materials, 2020, 4, .	2.4	0