Sankha Mukherjee

List of Publications by Year
in descending order

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	Least Squares Twin Support Vector Machines to Classify End-Point Phosphorus Content in BOF Steelmaking. Metals, 2022, 12, 268.	2.3	6
2	Two-dimensional square metal organic framework as promising cathode material for lithium-sulfur battery with high theoretical energy density. Journal of Colloid and Interface Science, 2022, 613, 435-446.	9.4	11
3	Chemical and molecular structure transformations in atomistic conformation of cellulose nanofibers under thermal environment. Npj Materials Degradation, 2022, 6, .	5.8	1
4	Interplay between Thermal Stress and Interface Binding on Fracture of WS₂ Monolayer with Triangular Voids. ACS Applied Materials & Interfaces, 2022, 14, 16876-16884.	8.0	10
5	Mechanical reliability of monolayer MoS2 and WSe2. Matter, 2022, 5, 2975-2989.	10.0	5
6	Deciphering Interfacial Chemical and Electrochemical Reactions of Sulfideâ€Based Allâ€Solidâ€State Batteries. Advanced Energy Materials, 2021, 11, 2100210.	19.5	63
7	Thermoconformational Behavior of Cellulose Nanofiber Films as a Device Substrate and Their Superior Flexibility and Durability to Glass. ACS Applied Materials & Interfaces, 2021, 13, 40853-40862.	8.0	4
8	Fatigue resistance of atomically thin graphene oxide. Carbon, 2021, 183, 780-788.	10.3	14
9	Strength of graphene with curvilinear grain boundaries. Carbon, 2020, 158, 808-817.	10.3	11
10	Electrolyte-Phobic Surface for the Next-Generation Nanostructured Battery Electrodes. Nano Letters, 2020, 20, 7455-7462.	9.1	25
11	Phase Evolution of a Prenucleator for Fast Li Nucleation in Allâ€Solidâ€State Lithium Batteries. Advanced Energy Materials, 2020, 10, 2001191.	19.5	17
12	Materials perspective on new lithium chlorides and bromides: insights into thermo-physical properties. Physical Chemistry Chemical Physics, 2020, 22, 22758-22767.	2.8	15
13	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
14	Determining the limiting factor of the electrochemical stability window for PEO-based solid polymer electrolytes: main chain or terminal â€“OH group?. Energy and Environmental Science, 2020, 13, 1318-1325.	30.8	342
15	Fatigue of graphene. Nature Materials, 2020, 19, 405-411.	27.5	110
16	Dramatic improvement in the performance of graphene as Li/Na battery anodes with suitable electrolytic solvents. Carbon, 2020, 161, 570-576.	10.3	12
17	Toughening of graphene-based polymer nanocomposites via tuning chemical functionalization. Composites Science and Technology, 2020, 194, 108140.	7.8	44
18	An Application of Decision Tree-Based Twin Support Vector Machines to Classify Dephosphorization in BOF Steelmaking. Metals, 2020, 10, 25.	2.3	9

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19	Compression-induced resistance of singlet oxygen dissociation on phosphorene. Physical Review Materials, 2020, 4, .	2.4	0
20	Understanding Dephosphorization in Basic Oxygen Furnaces (BOFs) Using Data Driven Modeling Techniques. Metals, 2019, 9, 955.	2.3	8
21	Elastomer-like deformation in high-Poisson's-ratio graphene allotropes may allow tensile strengths beyond theoretical cohesive strength limits. Carbon, 2019, 143, 752-761.	10.3	8
22	Phosphorene as a Catalyst for Highly Efficient Nonaqueous Liâ€“Air Batteries. ACS Applied Materials & Interfaces, 2019, 11, 499-510.	8.0	27
23	Nonlinear fracture toughness measurement and crack propagation resistance of functionalized graphene multilayers. Science Advances, 2018, 4, eaao7202.	10.3	72
24	Ultrahigh Storage and Fast Diffusion of Na and K in Blue Phosphorene Anodes. ACS Applied Materials & Interfaces, 2018, 10, 8630-8639.	8.0	143
25	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
26	Twoâ€dimensional boron as an impressive lithiumâ€sulphur battery cathode material. Energy Storage Materials, 2018, 13, 80-87.	18.0	38
27	Effect of lattice stacking orientation and local thickness variation on the mechanical behavior of few layer graphene oxide. Carbon, 2018, 136, 168-175.	10.3	21
28	Adsorption and diffusion of lithium polysulfides over blue phosphorene for Liâ€“S batteries. Nanoscale, 2018, 10, 21335-21352.	5.6	69
29	Electrostatic Deposition of Large-Surface Graphene. Materials, 2018, 11, 116.	2.9	5
30	Hydrogen storage in Li, Na and Ca decorated and defective borophene: a first principles study. RSC Advances, 2018, 8, 20748-20757.	3.6	64
31	Atomistic Origins of Ductility Enhancement in Metal Oxide Coated Silicon Nanowires for Liâ€ion Battery Anodes. Advanced Materials Interfaces, 2017, 4, 1700920.	3.7	23
32	Role of graphene in enhancing the mechanical properties of TiO₂/graphene heterostructures. Nanoscale, 2017, 9, 11678-11684.	5.6	22
33	A first principles study of hydrogen storage inÂlithium decorated defective phosphorene. International Journal of Hydrogen Energy, 2017, 42, 23018-23027.	7.1	56
34	Phosphorene as a Polysulfide Immobilizer and Catalyst in Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Materials, 2017, 29, 1602734.	21.0	289
35	Atomistic simulations of material damping in amorphous silicon nanoresonators. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 055015.	2.0	1
36	Mechanical properties of monolayer penta-graphene and phagraphene: a first-principles study. Physical Chemistry Chemical Physics, 2016, 18, 26736-26742.	2.8	106

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37	New insights into the structure-nonlinear mechanical property relations for graphene allotropes. Carbon, 2016, 110, 443-457.	10.3	32
38	Methods for Atomistic Simulations of Linear and Nonlinear Damping in Nanomechanical Resonators. Journal of Microelectromechanical Systems, 2015, 24, 1462-1470.	2.5	7
39	Quantifying the mesoscopic shear strains in plane strain compressed polycrystalline zirconium. Acta Materialia, 2014, 69, 265-274.	7.9	25
40	Local Strain Calculations Using Electron Backscattered Diffraction (EBSD) Measurements and Digital Image Processing. Materials Science Forum, 0, 702-703, 562-565.	0.3	0