

# Dibakar Datta

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

29  
papers

1,508  
citations

16  
h-index

34  
g-index

34  
ext. papers

1,659  
ext. citations

6.3  
avg, IF

4.71  
L-index

#	Paper	IF	Citations
29	Defect-induced plating of lithium metal within porous graphene networks. <i>Nature Communications</i> , <b>2014</b> , 5, 3710	17.4	329
28	Defective graphene as a high-capacity anode material for Na- and Ca-ion batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 1788-95	9.5	301
27	Aerosol synthesis of cargo-filled graphene nanosacks. <i>Nano Letters</i> , <b>2012</b> , 12, 1996-2002	11.5	166
26	Enhanced lithiation in defective graphene. <i>Carbon</i> , <b>2014</b> , 80, 305-310	10.4	149
25	Graphene-based environmental barriers. <i>Environmental Science &amp; Technology</i> , <b>2012</b> , 46, 7717-24	10.3	110
24	Mechanical properties of amorphous Li <sub>x</sub> Si alloys: a reactive force field study. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2013</b> , 21, 074002	2	91
23	Mechanical properties of hydrogen functionalized graphene allotropes. <i>Computational Materials Science</i> , <b>2014</b> , 83, 212-216	3.2	42
22	Effect of crack length and orientation on the mixed-mode fracture behavior of graphene. <i>Extreme Mechanics Letters</i> , <b>2015</b> , 5, 10-17	3.9	39
21	Utilizing van der Waals Slippery Interfaces to Enhance the Electrochemical Stability of Silicon Film Anodes in Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 13442-13451	9.5	38
20	Atomistic Mechanisms of Phase Boundary Evolution during Initial Lithiation of Crystalline Silicon. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 17247-17253	3.8	38
19	Thermal characteristics of graphene nanoribbons endorsed by surface functionalization. <i>Carbon</i> , <b>2017</b> , 113, 274-282	10.4	28
18	Anomalous mechanical characteristics of graphene with tilt grain boundaries tuned by hydrogenation. <i>Carbon</i> , <b>2015</b> , 90, 234-241	10.4	26
17	Plastic deformation drives wrinkling, saddling, and wedging of annular bilayer nanostructures. <i>Nano Letters</i> , <b>2010</b> , 10, 5098-102	11.5	26
16	Mechanical properties of graphene grain boundary and hexagonal boron nitride lateral heterostructure with controlled domain size. <i>Computational Materials Science</i> , <b>2017</b> , 126, 474-478	3.2	20
15	Effect of cobalt content on the electrochemical properties and structural stability of NCA type cathode materials. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 22805-22817	3.6	19
14	Interlayer shear of nanomaterials: Graphene-graphene, boron nitride-boron nitride and graphene-boron nitride. <i>Acta Mechanica Solida Sinica</i> , <b>2017</b> , 30, 234-240	2	17
13	Amorphous germanium as a promising anode material for sodium ion batteries: a first principle study. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 14423-14434	4.3	15

12	Surface hydrogenation regulated wrinkling and torque capability of hydrogenated graphene annulus under circular shearing. <i>Scientific Reports</i> , <b>2015</b> , 5, 16556	4.9	12
11	Controlled edge dependent stacking of WS-WS Homo- and WS-WSe Hetero-structures: A Computational Study. <i>Scientific Reports</i> , <b>2020</b> , 10, 1648	4.9	11
10	Patterned arrangement regulated mechanical properties of hydrogenated graphene. <i>Computational Materials Science</i> , <b>2014</b> , 93, 68-73	3.2	10
9	A spectral approach for discrete dislocation dynamics simulations of nanoindentation. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2018</b> , 26, 055004	2	5
8	The inherent behavior of graphene flakes in water: A molecular dynamics study. <i>Computational Materials Science</i> , <b>2019</b> , 162, 140-147	3.2	4
7	Computational study of the water-driven graphene wrinkle life-cycle towards applications in flexible electronics. <i>Scientific Reports</i> , <b>2020</b> , 10, 11315	4.9	2
6	Machine learning in materials modeling fundamentals and the opportunities in 2D materials <b>2020</b> , 445-468		2
5	Understanding the Strength of the Selenium-Graphene Interfaces for Energy Storage Systems. <i>Langmuir</i> , <b>2021</b> , 37, 2029-2039	4	2
4	Two-dimensional materials and its heterostructures for energy storage <b>2020</b> , 385-401		1
3	Selenium infiltrated hierarchical hollow carbon spheres display rapid kinetics and extended cycling as lithium metal battery (LMB) cathodes. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 18582-18593	13	1
2	Variation in the interface strength of silicon with surface engineered TiC MXenes. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 5540-5550	3.6	0
1	Drug repurposing for SARS-CoV-2: a high-throughput molecular docking, molecular dynamics, machine learning, and DFT study.. <i>Journal of Materials Science</i> , <b>2022</b> , 1-23	4.3	0