Yang Wang

List of Publications by Year
in descending order

20	382	840776 11	888059 17
papers	citations	h-index	g-index

20	20	20	187
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Triboemission of hydrocarbon molecules from diamond-like carbon friction interface induces atomic-scale wear. Science Advances, 2019, 5, eaax9301.	10.3	70
2	Tribochemical reactions and graphitization of diamond-like carbon against alumina give volcano-type temperature dependence of friction coefficients: A tight-binding quantum chemical molecular dynamics simulation. Carbon, 2018, 133, 350-357.	10.3	52
3	Tight-Binding Quantum Chemical Molecular Dynamics Study on the Friction and Wear Processes of Diamond-Like Carbon Coatings: Effect of Tensile Stress. ACS Applied Materials & Interfaces, 2017, 9, 34396-34404.	8.0	43
4	Proposal of a new formation mechanism for hydrogenated diamond-like carbon transfer films: Hydrocarbon-emission-induced transfer. Carbon, 2019, 154, 7-12.	10.3	35
5	Self-Formed Double Tribolayers Play Collaborative Roles in Achieving Superlow Friction in an Aqueous Environment. Journal of Physical Chemistry C, 2020, 124, 8295-8303.	3.1	24
6	Development of a Transferable ReaxFF Parameter Set for Carbon- and Silicon-Based Solid Systems. Journal of Physical Chemistry C, 2020, 124, 10007-10015.	3.1	22
7	Reactive Molecular Dynamics Simulations of Wear and Tribochemical Reactions of Diamond like Carbon Interfaces with Nanoscale Asperities under H2 Gas: Implications for Solid Lubricant Coatings. ACS Applied Nano Materials, 2020, 3, 7297-7304.	5.0	21
8	Nonâ€Empirical Law for Nanoscale Atomâ€byâ€Atom Wear. Advanced Science, 2021, 8, 2002827.	11.2	21
9	Atom-by-Atom and Sheet-by-Sheet Chemical Mechanical Polishing of Diamond Assisted by OH Radicals: A Tight-Binding Quantum Chemical Molecular Dynamics Simulation Study. ACS Applied Materials & Interfaces, 2021, 13, 41231-41237.	8.0	19
10	Different Etching Mechanisms of Diamond by Oxygen and Hydrogen Plasma: a Reactive Molecular Dynamics Study. Journal of Physical Chemistry C, 2021, 125, 16711-16718.	3.1	16
11	Cooperative roles of chemical reactions and mechanical friction in chemical mechanical polishing of gallium nitride assisted by OH radicals: tight-binding quantum chemical molecular dynamics simulations. Physical Chemistry Chemical Physics, 2021, 23, 4075-4084.	2.8	15
12	Role of OH Termination in Mitigating Friction of Diamond-like Carbon under High Load: A Joint Simulation and Experimental Study. Langmuir, 2021, 37, 6292-6300.	3.5	11
13	Three Tribolayers Self-Generated from SiC Individually Work for Reducing Friction in Different Contact Pressures. Journal of Physical Chemistry C, 2022, 126, 2728-2736.	3.1	9
14	Role of Interfacial Bonding in Tribochemical Wear. Frontiers in Chemistry, 2022, 10, 852371.	3.6	9
15	Prediction of Macroscopic Properties of Diamond-like Carbon from Atomic-Scale Structure. Journal of Physical Chemistry C, 2019, 123, 24609-24614.	3.1	6
16	Selective Wear Behaviors of a Water-Lubricating SiC Surface under Rotating-Contact Conditions Revealed by Large-Scale Reactive Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2021, 125, 14957-14964.	3.1	6
17	Heterogeneous yielding mechanisms of body centered cubic iron for high resistance to chemical reaction-induced deterioration in supercritical water environments: A reactive molecular dynamics study. Scripta Materialia, 2021, 202, 113997.	5.2	3
18	Heterogeneous Yielding Mechanisms of Body Center Cubic Iron for High Resistance to Chemical Reaction-Induced Deterioration in Supercritical Water Environments: A Reactive Molecular Dynamics Study. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	Citations
19	Reactive Molecular Dynamics Simulation on Friction-induced Chemical Reactions of SiC in Water Environments. Journal of Computer Chemistry Japan, 2020, 19, 139-141.	0.1	0
20	Chemical-Reaction-Induced deformation of Body-Centered cubic iron in supercritical water leading to high risk of cleavage Fracture: A reactive Molecular dynamics study. Computational Materials Science, 2022, 208, 111354.	3.0	0