Zhe Chen

List of Publications by Year
in descending order

29 papers	890 citations	566801 15 h-index	500791 28 g-index
29 all docs	29 docs citations	29 times ranked	929 citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrathin MoS2 Nanosheets with Superior Extreme Pressure Property as Boundary Lubricants. Scientific Reports, 2015, 5, 12869.	1.6	140
2	Effect of Humidity on Friction and Wearâ€"A Critical Review. Lubricants, 2018, 6, 74.	1.2	106
3	Hydrogen bonding interactions of H2O and SiOH on a boroaluminosilicate glass corroded in aqueous solution. Npj Materials Degradation, 2020, 4, .	2.6	64
4	Chemical and physical origins of friction on surfaces with atomic steps. Science Advances, 2019, 5, eaaw0513.	4.7	62
5	Controllable Superlubricity of Glycerol Solution via Environment Humidity. Langmuir, 2013, 29, 11924-11930.	1.6	50
6	Mechanism of Biological Liquid Superlubricity of <i>Brasenia schreberi</i> Mucilage. Langmuir, 2014, 30, 3811-3816.	1.6	45
7	Combined Effects of Structural Transformation and Hydrogen Passivation on the Frictional Behaviors of Hydrogenated Amorphous Carbon Films. Journal of Physical Chemistry C, 2015, 119, 16148-16155.	1.5	44
8	Superlubricity of nanodiamonds glycerol colloidal solution between steel surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 489, 400-406.	2.3	43
9	Mechanism of Antiwear Property Under High Pressure of Synthetic Oil-Soluble Ultrathin MoS₂ Sheets as Lubricant Additives. Langmuir, 2018, 34, 1635-1644.	1.6	43
10	Layered Double Hydroxide Nanoplatelets with Excellent Tribological Properties under High Contact Pressure as Water-Based Lubricant Additives. Scientific Reports, 2016, 6, 22748.	1.6	41
11	Friction at single-layer graphene step edges due to chemical and topographic interactions. Carbon, 2019, 154, 67-73.	5.4	38
12	Tribological properties of few-layer graphene oxide sheets as oil-based lubricant additives. Chinese Journal of Mechanical Engineering (English Edition), 2016, 29, 439-444.	1.9	29
13	Insight into the Tribological Behavior of Liposomes in Artificial Joints. Langmuir, 2016, 32, 10957-10966.	1.6	23
14	Behavior and mechanism of ultralow friction of basil seed gel. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 489, 454-460.	2.3	20
15	Origin of High Friction at Graphene Step Edges on Graphite. ACS Applied Materials & Interfaces, 2021, 13, 1895-1902.	4.0	16
16	Effect of Atomic Corrugation on Adhesion and Friction: A Model Study with Graphene Step Edges. Journal of Physical Chemistry Letters, 2019, 10, 6455-6461.	2.1	15
17	Atomic Force Microscopy (AFM) Analysis of an Object Larger and Sharper than the AFM Tip. Microscopy and Microanalysis, 2019, 25, 1106-1111.	0.2	13
18	Anisotropic Optical and Frictional Properties of Langmuirâ€"Blodgett Film Consisting of Uniaxiallyâ€Aligned Rodâ€Shaped Cellulose Nanocrystals. Advanced Materials Interfaces, 2020, 7, 1902169.	1.9	12

#	ARTICLE	IF	CITATIONS
19	Flash temperature and anti-wear tribofilm growth mechanisms by asperity contact in top-ring/liner conjunction of IC engines. Tribology International, 2020, 146, 106186.	3.0	12
20	Modeling of Formation and Removal of ZDDP Tribofilm on Rough Surfaces. Tribology Letters, 2021, 69, 1.	1.2	12
21	Measuring nanoscale friction at graphene step edges. Friction, 2020, 8, 802-811.	3.4	11
22	Effect of Ambient Chemistry on Friction at the Basal Plane of Graphite. ACS Applied Materials & Interfaces, 2019, 11, 40800-40807.	4.0	10
23	Dissolution of silica component of glass network at early stage of corrosion in initially silicaâ€saturated solution. Journal of the American Ceramic Society, 2019, 102, 6649-6657.	1.9	9
24	Environmental effects on superlubricity of hydrogenated diamond-like carbon: Understanding tribochemical kinetics in O2 and H2O environments. Applied Surface Science, 2022, 580, 152299.	3.1	9
25	Growth mechanism of hydrogenated amorphous carbon films: Molecular dynamics simulations. Surface and Coatings Technology, 2014, 258, 901-907.	2.2	6
26	Identifying Physical and Chemical Contributions to Friction: A Comparative Study of Chemically Inert and Active Graphene Step Edges. ACS Applied Materials & Interfaces, 2020, 12, 30007-30015.	4.0	6
27	Flexural stress effect on mechanical and mechanochemical properties of soda lime silicate glass surface. Journal of the American Ceramic Society, 2022, 105, 2847-2857.	1.9	5
28	Electric Field-Induced Polarization Responses of Noncentrosymmetric Crystalline Biopolymers in Different Frequency Regimes â€" A Case Study on Unidirectionally Aligned Î²-Chitin Crystals. Biomacromolecules, 2021, 22, 1901-1909.	2.6	4
29	Friction of diamond-like carbon: Run-in behavior and environment effects on superlubricity. , 2021, , 275-288.		2