Dirk Dietzel

List of Publications by Year
in descending order

30	852	567281 15	477307 29
papers	citations	h-index	g-index

30	30	30	696
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Frictional Duality Observed during Nanoparticle Sliding. Physical Review Letters, 2008, 101, 125505.	7.8	160
2	Scaling Laws of Structural Lubricity. Physical Review Letters, 2013, 111, 235502.	7.8	136
3	Limitations of Structural Superlubricity: Chemical Bonds versus Contact Size. ACS Nano, 2017, 11, 7642-7647.	14.6	83
4	Interfacial friction obtained by lateral manipulation of nanoparticles using atomic force microscopy techniques. Journal of Applied Physics, 2007, 102, 084306.	2.5	74
5	Nanotribological studies using nanoparticle manipulation: Principles and application to structural lubricity. Friction, 2014, 2, 114-139.	6.4	40
6	Transition from static to kinetic friction of metallic nanoparticles. Applied Physics Letters, 2009, 95, .	3.3	38
7	Frictional duality of metallic nanoparticles: Influence of particle morphology, orientation, and air exposure. Physical Review B, 2010, 82, .	3.2	32
8	Friction fluctuations of gold nanoparticles in the superlubric regime. Nanotechnology, 2018, 29, 155702.	2.6	28
9	Universal Aging Mechanism for Static and Sliding Friction of Metallic Nanoparticles. Physical Review Letters, 2016, 117, 025502.	7.8	27
10	Recent highlights in nanoscale and mesoscale friction. Beilstein Journal of Nanotechnology, 2018, 9, 1995-2014.	2.8	27
11	Time Strengthening of Crystal Nanocontacts. Physical Review Letters, 2017, 118, 246101.	7.8	26
12	Understanding frictional duality and bi-duality: Sb-nanoparticles on HOPG. Nanotechnology, 2011, 22, 085704.	2.6	24
13	Influence of Contact Aging on Nanoparticle Friction Kinetics. Physical Review Letters, 2014, 112, 155503.	7.8	24
14	Single-asperity sliding friction across the superconducting phase transition. Science Advances, 2020, 6, eaay0165.	10.3	18
15	Lattice Discontinuities of 1T-TaS2 across First Order Charge Density Wave Phase Transitions. Scientific Reports, 2019, 9, 7066.	3.3	17
16	Spinning and translational motion of Sb nanoislands manipulated on MoS₂. Nanotechnology, 2013, 24, 325302.	2.6	16
17	Nanoscale electrochemical measurements on a lithium-ion conducting glass ceramic: In-situ monitoring of the lithium particle growth. Electrochemistry Communications, 2012, 18, 74-77.	4.7	15
18	Nanoscale Characterization of Ion Mobility by Temperature-Controlled Li-Nanoparticle Growth. ACS Applied Materials & Interfaces, 2019, 11, 5476-5483.	8.0	13

#	Article	IF	Citations
19	Tribological properties of a phyllosilicate based microparticle oil additive. Wear, 2019, 426-427, 835-844.	3.1	9
20	Friction vs. Area Scaling of Superlubric NaCl-Particles on Graphite. Lubricants, 2019, 7, 66.	2.9	8
21	Temperature Activates Contact Aging in Silica Nanocontacts. Physical Review X, 2019, 9, .	8.9	7
22	Thermal Activation of Nanoscale Wear. Physical Review Letters, 2021, 126, 196101.	7.8	7
23	Nanotribological Properties of Hexadecanethiol Self-Assembled Monolayers on Au(111): Structure, Temperature, and Velocity. Langmuir, 2017, 33, 6005-6010.	3.5	5
24	Tribological Analysis of Contacts Between Glass and Tungsten Carbide Near the Glass Transition Temperature. Tribology Letters, 2020, 68, 1.	2.6	5
25	Friction anomalies at first-order transition spinodals: 1T-TaS₂. New Journal of Physics, 2018, 20, 023033.	2.9	4
26	Conformable metal oxide platelets â€“ A smart surface armor for green tribology. Tribology International, 2021, 162, 107138.	5.9	3
27	Shear-assisted contact aging of single-asperity nanojunctions. Physical Review B, 2022, 105, .	3.2	3
28	Tip radius quantification using feature-size mapping of field ion microscopy images. Physical Review B, 2014, 90, .	3.2	1
29	Image contrast mechanisms in dynamic friction force microscopy: Antimony particles on graphite. Journal of Applied Physics, 2017, 121, 044307.	2.5	1
30	Characterization of Vegard strain related to exceptionally fast Cu-chemical diffusion in Cu$$_2$$Mo$$_6$$S$$_8$$ by an advanced electrochemical strain microscopy method. Scientific Reports, 2021, 11, 18133.	3.3	1