Martin Dienwiebel

List of Publications by Year
in descending order

39 papers	2,476 citations	331670 21 h-index	330143 37 g-index
39 all docs	39 docs citations	39 times ranked	2102 citing authors

#	Article	IF	Citations
1	Superlubricity of Graphite. Physical Review Letters, 2004, 92, 126101.	7.8	1,145
2	Model calculations of superlubricity of graphite. Physical Review B, 2004, 70, .	3.2	174
3	Model experiments of superlubricity of graphite. Surface Science, 2005, 576, 197-211.	1.9	169
4	Friction and Wear on Single-Layer Epitaxial Graphene in Multi-Asperity Contacts. Tribology Letters, 2012, 48, 77-82.	2.6	98
5	Superlubric to stick-slip sliding of incommensurate graphene flakes on graphite. Physical Review B, 2013, 88, .	3.2	98
6	Origins of the wear resistance of AlSi cylinder bore surfaces studies by surface analytical tools. Tribology International, 2007, 40, 1597-1602.	5.9	65
7	On the tribochemical action of engine soot. Wear, 2010, 269, 1-12.	3.1	63
8	Origins of Folding Instabilities on Polycrystalline Metal Surfaces. Physical Review Applied, 2014, 2, .	3.8	63
9	Friction and Wear Mechanisms of Tungstenâ€“Carbon Systems: A Comparison of Dry and Lubricated Conditions. ACS Applied Materials & Interfaces, 2013, 5, 6123-6135.	8.0	44
10	Nanoscale sliding friction phenomena at the interface of diamond-like carbon and tungsten. Acta Materialia, 2014, 67, 395-408.	7.9	44
11	Experimental and Numerical Atomistic Investigation of the Third Body Formation Process in Dry Tungsten/Tungsten-Carbide Tribo Couples. Tribology Letters, 2013, 50, 67-80.	2.6	42
12	Design and construction of a novel tribometer with online topography and wear measurement. Review of Scientific Instruments, 2010, 81, 063904.	1.3	41
13	Formation of the third bodies of steel sliding against brass under lubricated conditions. Tribology International, 2019, 140, 105727.	5.9	40
14	In situ observation of wear particle formation on lubricated sliding surfaces. Acta Materialia, 2012, 60, 420-429.	7.9	37
15	Microscale study of frictional properties of graphene in ultra high vacuum. Friction, 2015, 3, 161-169.	6.4	37
16	Noncontact atomic force microscopy in liquid environment with quartz tuning fork and carbon nanotube probe. Applied Surface Science, 2002, 188, 440-444.	6.1	35
17	The running-in mechanisms of binary brass studied by in-situ topography measurements. Wear, 2013, 303, 465-472.	3.1	35
18	Fabrication of a novel scanning probe device for quantitative nanotribology. Sensors and Actuators A: Physical, 2000, 84, 18-24.	4.1	28

#	Article	IF	Citations
19	Graphite lubrication mechanisms under high mechanical load. Wear, 2021, 477, 203794.	3.1	28
20	The effect of sample finishing on the tribology of metal/metal lubricated contacts. Wear, 2010, 268, 1518-1523.	3.1	25
21	Nanoscale Evolution of Sliding Metal Surfaces During Running-in. Tribology Letters, 2007, 27, 255-260.	2.6	23
22	Quantification of the carbon bonding state in amorphous carbon materials: A comparison between EELS and NEXAFS measurements. Carbon, 2021, 173, 557-564.	10.3	23
23	Surface Softening in Metalâ€“Ceramic Sliding Contacts: An Experimental and Numerical Investigation. ACS Nano, 2015, 9, 1478-1491.	14.6	22
24	A new approach to link the friction coefficient with topography measurements during plowing. Wear, 2013, 303, 202-210.	3.1	15
25	The structure of tribolayers at the commutator and brush interface: A case study of failed and non-failed DC motors. Tribology International, 2015, 92, 21-28.	5.9	13
26	Microstructure, mechanical properties and friction behavior of magnetron-sputtered V-C coatings. Surface and Coatings Technology, 2017, 321, 366-377.	4.8	13
27	Combining in situ and online approaches to monitor interfacial processes in lubricated sliding contacts. MRS Communications, 2016, 6, 301-308.	1.8	9
28	Programming Viscosity in Silicone Oils: Reversible Tuning of Rheological Properties in 9-Anthracene Ester-Terminated Polydimethylsiloxanes. ACS Applied Polymer Materials, 2020, 2, 5460-5468.	4.4	9
29	Design and testing of ultrahigh vacuum microtribometer. Tribology - Materials, Surfaces and Interfaces, 2012, 6, 95-101.	1.4	7
30	Low friction of metallic multilayers by formation of a shear-induced alloy. Scientific Reports, 2019, 9, 9480.	3.3	7
31	Effect of Environment on Microstructure Evolution and Friction of Auâ€“Ni Multilayers. Tribology Letters, 2020, 68, 1.	2.6	7
32	Multiscale Friction Simulation of Dry Polymer Contacts: Reaching Experimental Length Scales by Coupling Molecular Dynamics and Contact Mechanics. Tribology Letters, 2021, 69, 1.	2.6	7
33	The Running-in Tribological Behavior of Pb-Free Brass and Its Effect on Microstructural Evolution. Tribology Letters, 2017, 65, 1.	2.6	5
34	Correlation of wear behaviour and microstructural evolution in Mgâ€“Znâ€“Y alloys with long-period stacking ordered phase. Wear, 2021, 482-483, 203983.	3.1	2
35	Slippery Nanoworld. Europhysics News, 2005, 36, 6-8.	0.3	1
36	Tribology of Wire Arc Spray Coatings under the Influence of Regenerative Fuels. Lubricants, 2018, 6, 60.	2.9	1

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37	A numerical approach for the determination of graphite deformation behaviour by using microtribological pressure tests. Wear, 2021, 476, 203652.	3.1	1
38	Message from the Scientific Organizers. Tribology Letters, 2010, 39, 1-1.	2.6	0
39	European Symposium on Friction, Wear, and Wear Protection. Conference Papers in Science, 2015, 2015, 1-1.	0.3	0