Philip Egberts

List of Publications by Year in Descending Order

43 papers	1,288 citations	17 h-index	35 g-index
46 ext. papers	1,564 ext. citations	4.4 avg, IF	4.38 L-index

#	Paper	IF	Citations
43	Prediction of Optimal Process Parameters in Tribocorrosion Inhibition of Steel Pipes Using Response Surface Methodology. *Tribology Letters*, **2021**, 69, 1	2.8	0
42	Layer dependent out-of-plane elastic modulus of graphene. *Applied Physics Letters*, **2021**, 118, 263101	3.4	
41	Enhancement of tribo-corrosion performance of carbon steel through boronizing and BN-based coatings. *Tribology International*, **2021**, 153, 106666	4.9	13
40	Influence of heating on the measured friction behavior of graphene evaluated under ultra-high vacuum conditions. *Applied Physics Letters*, **2021**, 119, 063102	3.4	1
39	Tribo-corrosion inhibition of AISI 4715 steel pipe carrying hydraulic fracturing fluid. *Tribology International*, **2021**, 161, 107066	4.9	2
38	Quantitative determination of the interaction potential between two surfaces using frequency-modulated atomic force microscopy. *Beilstein Journal of Nanotechnology*, **2020**, 11, 729-739	3	1
37	Insights into dynamic sliding contacts from conductive atomic force microscopy. *Nanoscale Advances*, **2020**, 2, 4117-4124	5.1	1
36	Nanoscale spatial mapping of mechanical properties through dynamic atomic force microscopy. *Beilstein Journal of Nanotechnology*, **2019**, 10, 1332-1347	3	2
35	In situ monitoring of the morphology evolution of interfacially-formed conductive nanocomposite films and their use as strain sensors. *Journal of Colloid and Interface Science*, **2019**, 554, 305-314	9.3	1
34	A Novel Tribometer Designed to Evaluate Geological Sliding Contacts Lubricated by Drilling Muds. *Journal of Testing and Evaluation*, **2019**, 47, 20170468	1	1
33	Mechanisms of friction reduction of nanoscale sliding contacts achieved through ultrasonic excitation. *Nanotechnology*, **2019**, 30, 075502	3.4	3
32	Evaluation of wetting transparency and surface energy of pristine and aged graphene through nanoscale friction. *Carbon*, **2018**, 132, 749-759	10.4	24
31	Effect of counterface on cartilage boundary lubricating ability by proteoglycan 4 and hyaluronan: Cartilage-glass versus cartilage-cartilage. *Journal of Orthopaedic Research*, **2018**, 36, 2923-2931	3.8	10
30	Atomic-Scale Friction **2018**, 40-54		
29	Tribological Behavior of Multi-scaled Patterned Surfaces Machined Through Inclined End Milling and Micro Shot Blasting. *Tribology Letters*, **2018**, 66, 1	2.8	11
28	Contrast mechanisms on nanoscale subsurface imaging in ultrasonic AFM: scattering of ultrasonic waves and contact stiffness of the tip-sample. *Nanoscale*, **2017**, 9, 2330-2339	7.7	17
27	A review on mechanics and mechanical properties of 2D materials□Graphene and beyond. *Extreme Mechanics Letters*, **2017**, 13, 42-77	3.9	581

26	Tip convolution on HOPG surfaces measured in AM-AFM and interpreted using a combined experimental and simulation approach. *Nanotechnology*, **2017**, 28, 025702	3.4	7
25	Adhesion Mechanics between Nanoscale Silicon Oxide Tips and Few-Layer Graphene. *Tribology Letters*, **2017**, 65, 1	2.8	9
24	Reduction of Friction Using Electrospun Polymer Composite Microbeads Emulsified in Mineral Oil. *Procedia Manufacturing*, **2017**, 10, 339-350	1.5	2
23	Quantitative analysis of nanoscale electrical properties of CNT/PVDF nanocomposites by current sensing AFM. *RSC Advances*, **2017**, 7, 32564-32573	3.7	4
22	Contrast in nanoscale friction between rotational domains of graphene on Pt(111). *Carbon*, **2017**, 113, 132-138	10.4	22
21	Load-Dependent Friction Hysteresis on Graphene. *ACS Nano*, **2016**, 10, 5161-8	16.7	46
20	Directional friction surfaces through asymmetrically shaped dimpled surfaces patterned using inclined flat end milling. *Tribology International*, **2015**, 91, 67-73	4.9	10
19	Dynamics of atomic stick-slip friction examined with atomic force microscopy and atomistic simulations at overlapping speeds. *Physical Review Letters*, **2015**, 114, 146102	7.4	53
18	Molecular dynamics simulation of amplitude modulation atomic force microscopy. *Nanotechnology*, **2015**, 26, 235705	3.4	10
17	Frictional behavior of atomically thin sheets: hexagonal-shaped graphene islands grown on copper by chemical vapor deposition. *ACS Nano*, **2014**, 8, 5010-21	16.7	112
16	Reinterpretation of velocity-dependent atomic friction: influence of the inherent instrumental noise in friction force microscopes. *Physical Review E*, **2014**, 90, 012125	2.4	10
15	Nanoscale Adhesive Properties of Graphene: The Effect of Sliding History. *Advanced Materials Interfaces*, **2014**, 1, 1300053	4.6	45
14	Correlation Between Probe Shape and Atomic Friction Peaks at Graphite Step Edges. *Tribology Letters*, **2013**, 50, 49-57	2.8	42
13	Environmental dependence of atomic-scale friction at graphite surface steps. *Physical Review B*, **2013**, 88,	3.3	58
12	Seeking Supersolidity in Helium Layers. *Physics Magazine*, **2013**, 6,	1.1	3
11	Angle-resolved environmental X-ray photoelectron spectroscopy: a new laboratory setup for photoemission studies at pressures up to 0.4 Torr. *Review of Scientific Instruments*, **2012**, 83, 093112	1.7	41
10	Friction model for single-asperity elastic-plastic contacts. *Physical Review B*, **2012**, 86,	3.3	23
9	Temporal development of indentation plasticity on the atomic scale revealed by force microscopy. *Physical Review B*, **2012**, 86,	3.3	7

8	Molecular order and disorder in the frictional response of alkanethiol self-assembled monolayers. *Journal of Physical Chemistry A*, **2011**, 115, 6942-7	2.8	17
7	Atomic-scale nanoindentation: detection and identification of single glide events in three dimensions by force microscopy. *Nanotechnology*, **2011**, 22, 425703	3.4	18
6	The Role of Plastic Deformation in Nanometer-Scale Wear. *Advances in Science and Technology*, **2010**, 64, 25-32	0.1	2
5	Microscopic Friction Studies on Metal Surfaces. *Tribology Letters*, **2010**, 39, 19-24	2.8	36
4	Nano-meter scale plasticity in KBr studied by nanoindenter and force microscopy. *Materials Research Society Symposia Proceedings*, **2009**, 1185, 90		2
3	A kelvin probe force microscopy of charged indentation-induced dislocation structures in KBr. *Nanotechnology*, **2009**, 20, 264005	3.4	19
2	Mesoscale Compositionally Modulated Nanocrystalline Ni-Fe Electrodeposits for Nanopatterning Applications. *Journal of Nanomaterials*, **2008**, 2008, 1-8	3.2	
1	Mesoscale structure in electrodeposited nanocrystalline Ni□e alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 441, 336-341	5.3	19