# Ashlie Martini

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 152 papers | 8,577 citations | 35 h-index | 91 g-index |
| 168 ext. papers | 10,369 ext. citations | 5.2 avg, IF | 6.47 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 152 | Platinum nanoparticle compression: Combining in situ TEM and atomistic modeling. *Applied Physics Letters*, **2022**, 120, 013101 | 3.4 | |
| 151 | Thermal decomposition of phosphonium salicylate and phosphonium benzoate ionic liquids. *Journal of Molecular Liquids*, **2022**, 352, 118700 | 6 | 1 |
| 150 | Review of Molecular Dynamics Simulations of Phosphonium Ionic Liquid Lubricants. *Tribology Letters*, **2022**, 70, 1 | 2.8 | 1 |
| 149 | Reactive molecular dynamics simulations of thermal and shear-driven oligomerization. *Applied Surface Science*, **2022**, 591, 153209 | 6.7 | 0 |
| 148 | Effect of polymer structure and chemistry on viscosity index, thickening efficiency, and traction coefficient of lubricants. *Journal of Molecular Liquids*, **2022**, 359, 119215 | 6 | |
| 147 | Activation Volume in Shear-Driven Chemical Reactions. *Tribology Letters*, **2021**, 69, 1 | 2.8 | 7 |
| 146 | Recent progress on phosphonium-based room temperature ionic liquids: Synthesis, properties, tribological performances and applications. *Tribology International*, **2021**, 167, 107331 | 4.9 | 7 |
| 145 | Time-Dependent Electrical Contact Resistance at the Nanoscale. *Tribology Letters*, **2021**, 69, 1 | 2.8 | 1 |
| 144 | Publishing Science in Tribology: The Past, Present and Future of Tribology Letters. *Tribology Letters* , **2021**, 69, 1 | 2.8 | 0 |
| 143 | Effect of Temperature and Surface Roughness on the Tribological Behavior of Electric Motor Greases for Hybrid Bearing Materials. *Lubricants*, **2021**, 9, 59 | 3.1 | 4 |
| 142 | Evaluation of Force Fields for Molecular Dynamics Simulations of Platinum in Bulk and Nanoparticle Forms. *Journal of Chemical Theory and Computation*, **2021**, 17, 4486-4498 | 6.4 | 3 |
| 141 | Synergetic effects of surface texturing and solid lubricants to tailor friction and wear – A review. *Tribology International*, **2021**, 155, 106792 | 4.9 | 99 |
| 140 | Origin of High Friction at Graphene Step Edges on Graphite. *ACS Applied Materials & Interfaces*, **2021**, 13, 1895-1902 | 9.5 | 9 |
| 139 | Thermal Decomposition of Tricresyl Phosphate on Ferrous Surfaces. *Journal of Physical Chemistry C*, **2021**, 125, 5076-5087 | 3.8 | 4 |
| 138 | Bifurcation of nanoscale thermolubric friction behavior for sliding on MoS2. *Physical Review Materials*, **2021**, 5, | 3.2 | 3 |
| 137 | Molecular Dynamics Simulation of the Stress–Strain Behavior of Polyamide Crystals. *Macromolecules*, **2021**, 54, 8289-8302 | 5.5 | 3 |
| 136 | Ambient and Nitrogen Environment Friction Data for Various Materials & Surface Treatments for Space Applications. *Tribology Letters*, **2021**, 69, 1 | 2.8 | 5 |

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| 135 | Limiting Domain Size of MoS2: Effects of Stoichiometry and Oxygen. *Journal of Physical Chemistry C* , **2020**, 124, 27571-27579 | 3.8 | 1 |
| 134 | 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 | 9.5 | 4 |
| 133 | Formation of MoS2 from elemental Mo and S using reactive molecular dynamics simulations. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 022201 | 2.9 | 6 |
| 132 | Strong and Superhydrophobic Wood with Aligned Cellulose Nanofibers as a Waterproof Structural Material *Chinese Journal of Chemistry*, **2020**, 38, 823-829 | 4.9 | 9 |
| 131 | Quantifying the pressure-dependence of work of adhesion in silicon diamond contacts. *Applied Physics Letters*, **2020**, 116, 051602 | 3.4 | 1 |
| 130 | Simulation of Subnanometer Contrast in Dynamic Atomic Force Microscopy of Hydrophilic Alkanethiol Self-Assembled Monolayers in Water. *Langmuir*, **2020**, 36, 2240-2246 | 4 | 2 |
| 129 | Nanoscale Friction of Hydrophilic and Hydrophobic Self-Assembled Monolayers in Water. *Tribology Letters*, **2020**, 68, 1 | 2.8 | 0 |
| 128 | Substituent Effects on the Thermal Decomposition of Phosphate Esters on Ferrous Surfaces. *Journal of Physical Chemistry C*, **2020**, 124, 9852-9865 | 3.8 | 9 |
| 127 | Improving the reliability of conductive atomic force microscopy-based electrical contact resistance measurements. *Nano Express*, **2020**, 1, 030023 | 2 | 2 |
| 126 | Ni-Doped MoS2 Dry Film Lubricant Life. *Advanced Materials Interfaces*, **2020**, 7, 2001109 | 4.6 | 6 |
| 125 | Critical Shear Rate of Polymer-Enhanced Hydraulic Fluids. *Lubricants*, **2020**, 8, 102 | 3.1 | 6 |
| 124 | Friction Anisotropy of MoS: Effect of Tip-Sample Contact Quality. *Journal of Physical Chemistry Letters*, **2020**, 11, 6900-6906 | 6.4 | 15 |
| 123 | Insights into dynamic sliding contacts from conductive atomic force microscopy. *Nanoscale Advances*, **2020**, 2, 4117-4124 | 5.1 | 1 |
| 122 | Nanoscale Friction Behavior of Transition-Metal Dichalcogenides: Role of the Chalcogenide. *ACS Nano*, **2020**, 14, 16013-16021 | 16.7 | 11 |
| 121 | Tribochemistry: A Review of Reactive Molecular Dynamics Simulations. *Lubricants*, **2020**, 8, 44 | 3.1 | 26 |
| 120 | Measurement of electrical contact resistance at nanoscale gold-graphite interfaces. *Applied Physics Letters*, **2019**, 115, 091602 | 3.4 | 9 |
| 119 | Effect of Ambient Chemistry on Friction at the Basal Plane of Graphite. *ACS Applied Materials & Interfaces*, **2019**, 11, 40800-40807 | 9.5 | 4 |
| 118 | Simulations of the effect of an oxide on contact area measurements from conductive atomic force microscopy. *Nanoscale*, **2019**, 11, 1029-1036 | 7.7 | 4 |

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| 117 | Synergistic effect of nanodiamonds on the adsorption of tricresyl phosphate on iron oxide surfaces. *Applied Physics Letters*, **2019**, 114, 171602 | 3.4 | 7 |
| 116 | A radiative cooling structural material. *Science*, **2019**, 364, 760-763 | 33.3 | 419 |
| 115 | Statistical Analysis of Tri-Cresyl Phosphate Conversion on an Iron Oxide Surface Using Reactive Molecular Dynamics Simulations. *Journal of Physical Chemistry C*, **2019**, | 3.8 | 7 |
| 114 | Chemical and physical origins of friction on surfaces with atomic steps. *Science Advances*, **2019**, 5, eaaw0513 | 11.5 | 32 |
| 113 | Solid Lubrication with MoS2: A Review. *Lubricants*, **2019**, 7, 57 | 3.1 | 132 |
| 112 | Matching Atomistic Simulations and In Situ Experiments to Investigate the Mechanics of Nanoscale Contact. *Tribology Letters*, **2019**, 67, 1 | 2.8 | 9 |
| 111 | Heat-, Load-, and Shear-Driven Reactions of Di-tert-butyl Disulfide on Fe(100). *Journal of Physical Chemistry C*, **2019**, 123, 19688-19692 | 3.8 | 8 |
| 110 | Origin of Nanoscale Friction Contrast between Supported Graphene, MoS, and a Graphene/MoS Heterostructure. *Nano Letters*, **2019**, 19, 5496-5505 | 11.5 | 55 |
| 109 | Effect of Atomic Corrugation on Adhesion and Friction: A Model Study with Graphene Step Edges. *Journal of Physical Chemistry Letters*, **2019**, 10, 6455-6461 | 6.4 | 10 |
| 108 | Effects of laser shock peening on the corrosion behavior and biocompatibility of a nickel-titanium alloy. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2019**, 107, 1854-1863 | 3.5 | 7 |
| 107 | Quantitative measurement of contact area and electron transport across platinum nanocontacts for scanning probe microscopy and electrical nanodevices. *Nanotechnology*, **2019**, 30, 045705 | 3.4 | 11 |
| 106 | Understanding contact between platinum nanocontacts at low loads: The effect of reversible plasticity. *Nanotechnology*, **2019**, 30, 035704 | 3.4 | 6 |
| 105 | Temporary and Permanent Viscosity Loss Correlated to Hydraulic System Performance. *Tribology Transactions*, **2018**, 61, 901-910 | 1.8 | 4 |
| 104 | Mechanical characterization of diesel soot nanoparticles: in situ compression in a transmission electron microscope and simulations. *Nanotechnology*, **2018**, 29, 085703 | 3.4 | 10 |
| 103 | Processing bulk natural wood into a high-performance structural material. *Nature*, **2018**, 554, 224-228 | 50.4 | 558 |
| 102 | Decomposition Mechanisms of Anti-wear Lubricant Additive Tricresyl Phosphate on Iron Surfaces Using DFT and Atomistic Thermodynamic Studies. *Tribology Letters*, **2018**, 66, 1 | 2.8 | 11 |
| 101 | Mechanochemical Association Reaction of Interfacial Molecules Driven by Shear. *Langmuir*, **2018**, 34, 5971-5977 | 4 | 29 |
| 100 | Low molecular weight polymethacrylates as multi-functional lubricant additives. *European Polymer Journal*, **2018**, 104, 39-44 | 5.2 | 14 |

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| 99 | Review of Viscosity Modifier Lubricant Additives. *Tribology Letters*, **2018**, 66, 1 | 2.8 | 60 |
| 98 | Development of a ReaxFF Force Field for Cu/S/C/H and Reactive MD Simulations of Methyl Thiolate Decomposition on Cu (100). *Journal of Physical Chemistry B*, **2018**, 122, 888-896 | 3.4 | 14 |
| 97 | Effects of substrate surface roughness and nano/micro particle additive size on friction and wear in lubricated sliding. *Tribology International*, **2018**, 119, 88-98 | 4.9 | 30 |
| 96 | Combined Experimental and Simulation Study of Amplitude Modulation Atomic Force Microscopy Measurements of Self-Assembled Monolayers in Water. *Langmuir*, **2018**, 34, 9627-9633 | 4 | 9 |
| 95 | Hierarchical structures on nickel-titanium fabricated by ultrasonic nanocrystal surface modification. *Materials Science and Engineering C*, **2018**, 93, 12-20 | 8.3 | 15 |
| 94 | Effect of Substrate Support on Dynamic Graphene/Metal Electrical Contacts. *Micromachines*, **2018**, 9, | 3.3 | 9 |
| 93 | Experiments and simulations of the humidity dependence of friction between nanoasperities and graphite: The role of interfacial contact quality. *Physical Review Materials*, **2018**, 2, | 3.2 | 17 |
| 92 | Thickening Mechanisms of Polyisobutylene in Polyalphaolefin. *Tribology Letters*, **2018**, 66, 1 | 2.8 | 7 |
| 91 | Friction Dependence on Surface Roughness for Castor Oil Lubricated NiTi Alloy Sliding on Steel. *Tribology Transactions*, **2018**, 61, 1162-1166 | 1.8 | 3 |
| 90 | Reactive Molecular Dynamics Simulations of Thermal Film Growth from Di- tert-butyl Disulfide on an Fe(100) surface. *Langmuir*, **2018**, 34, 15681-15688 | 4 | 6 |
| 89 | Emerging superlubricity: A review of the state of the art and perspectives on future research. *Applied Physics Reviews*, **2018**, 5, 041102 | 17.3 | 73 |
| 88 | Quantifying Varnish Removal Using Chemical Flushes. *Tribology Transactions*, **2018**, 61, 1067-1073 | 1.8 | 1 |
| 87 | Substrate effect on electrical conductance at a nanoasperity-graphene contact. *Carbon*, **2018**, 137, 118-124 | 6.4 | 13 |
| 86 | Atomistic description of coupled thermal-mechanical stresses on a gold/HOPG nanocontact. *Computational Materials Science*, **2017**, 130, 165-171 | 3.2 | 3 |
| 85 | A systematic study of mechanical properties, corrosion behavior and biocompatibility of AZ31B Mg alloy after ultrasonic nanocrystal surface modification. *Materials Science and Engineering C*, **2017**, 78, 1061-1071 | 8.3 | 37 |
| 84 | 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 |
| 83 | Amorphization-assisted nanoscale wear during the running-in process. *Wear*, **2017**, 370-371, 46-50 | 3.5 | 15 |
| 82 | Mechanochemistry at Solid Surfaces: Polymerization of Adsorbed Molecules by Mechanical Shear at Tribological Interfaces. *ACS Applied Materials & Interfaces*, **2017**, 9, 3142-3148 | 9.5 | 67 |

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| 81 | Measuring and Understanding Contact Area at the Nanoscale: A Review. *Applied Mechanics Reviews*, **2017**, 69, | 8.6 | 45 |
| 80 | Correlating Molecular Structure to the Behavior of Linear Styrene Butadiene Viscosity Modifiers. *Tribology Letters*, **2017**, 65, 1 | 2.8 | 10 |
| 79 | Atomistic simulations of contact area and conductance at nanoscale interfaces. *Nanoscale*, **2017**, 9, 16852-16857 | 7.7 | 9 |
| 78 | Filtration Effects on Foam Inhibitors and Optically Detected Oil Cleanliness. *Tribology Transactions*, **2017**, 60, 1159-1164 | 1.8 | 5 |
| 77 | Effect of roughness on the layer-dependent friction of few-layer graphene. *Physical Review B*, **2017**, 96, | 3.3 | 29 |
| 76 | Closure to Discussion of Measuring and Understanding Contact Area at the Nanoscale: A Review (Jacobs, T. D. B., and Ashlie Martini, A., 2017, ASME Appl. Mech. Rev., 69(6), p. 060802). *Applied Mechanics Reviews*, **2017**, 69, | 8.6 | 1 |
| 75 | Poly(alkyl methacrylate) Brush-Grafted Silica Nanoparticles as Oil Lubricant Additives: Effects of Alkyl Pendant Groups on Oil Dispersibility, Stability, and Lubrication Property. *ACS Applied Materials & Interfaces*, **2017**, 9, 25038-25048 | 9.5 | 45 |
| 74 | In situ Mechanical Testing of Contacts Between Nanoscale Bodies: Measuring the Load-dependence of Contact Area.. *Microscopy and Microanalysis*, **2017**, 23, 746-747 | 0.5 | |
| 73 | Atomistic simulation of frictional anisotropy on quasicrystal approximant surfaces. *Physical Review B*, **2016**, 93, | 3.3 | 5 |
| 72 | Identification of the Shear Plane During Sliding of Solid Boundary Films: Potassium Chloride Films on Iron. *Tribology Letters*, **2016**, 62, 1 | 2.8 | 1 |
| 71 | In Situ Measurements of Boundary Film Formation Pathways and Kinetics: Dimethyl and Diethyl Disulfide on Copper. *Tribology Letters*, **2016**, 62, 1 | 2.8 | 20 |
| 70 | Surface amorphization of NiTi alloy induced by Ultrasonic Nanocrystal Surface Modification for improved mechanical properties. *Journal of the Mechanical Behavior of Biomedical Materials*, **2016**, 53, 455-462 | 4.1 | 50 |
| 69 | Trends in Thermoresponsive Behavior of Lipophilic Polymers. *Industrial & Engineering Chemistry Research*, **2016**, 55, 12983-12990 | 3.9 | 11 |
| 68 | Load-Dependent Friction Hysteresis on Graphene. *ACS Nano*, **2016**, 10, 5161-8 | 16.7 | 46 |
| 67 | Effect of Molecular-Scale Features on the Polymer Coil Size of Model Viscosity Index Improvers. *Tribology Letters*, **2016**, 62, 1 | 2.8 | 12 |
| 66 | Highly Oriented MoS2 Coatings: Tribology and Environmental Stability. *Tribology Letters*, **2016**, 64, 1 | 2.8 | 16 |
| 65 | Predicting Pressure Viscosity Behavior from Ambient Viscosity and Compressibility: Challenges and Opportunities. *Tribology Letters*, **2015**, 57, 1 | 2.8 | 11 |
| 64 | Evaluation of reactive force fields for prediction of the thermo-mechanical properties of cellulose I *Computational Materials Science*, **2015**, 109, 330-340 | 3.2 | 17 |

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| 63 | (Ag,Cu)-Ta-O ternaries as high-temperature solid-lubricant coatings. *ACS Applied Materials & Interfaces*, **2015**, 7, 15422-9 | 9.5 | 25 |
| 62 | Atomistic simulation of the effect of roughness on nanoscale wear. *Computational Materials Science* , **2015**, 102, 208-212 | 3.2 | 21 |
| 61 | 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 |
| 60 | Oscillatory motion in layered materials: graphene, boron nitride, and molybdenum disulfide. *Nanotechnology*, **2015**, 26, 165701 | 3.4 | 16 |
| 59 | Atomic friction at exposed and buried graphite step edges: Experiments and simulations. *Applied Physics Letters*, **2015**, 106, 231603 | 3.4 | 27 |
| 58 | Influence of Potential Shape on Constant-Force Atomic-Scale Sliding Friction Models. *Tribology Letters*, **2015**, 60, 1 | 2.8 | 12 |
| 57 | Flexible all-carbon photovoltaics with improved thermal stability. *Journal of Solid State Chemistry*, **2015**, 224, 94-101 | 3.3 | 1 |
| 56 | Shear-Induced Mechanochemistry: Pushing Molecules Around. *Journal of Physical Chemistry C*, **2015** , 119, 7115-7123 | 3.8 | 48 |
| 55 | Molecular dynamics simulation of amplitude modulation atomic force microscopy. *Nanotechnology*, **2015**, 26, 235705 | 3.4 | 10 |
| 54 | Size and load dependence of nanoscale electric contact resistance. *Tribology International*, **2014**, 71, 109-113 | 4.9 | 10 |
| 53 | Thermal conductivity in nanostructured films: from single cellulose nanocrystals to bulk films. *Biomacromolecules*, **2014**, 15, 4096-101 | 6.9 | 89 |
| 52 | The role of roughness-induced damping in the oscillatory motion of bilayer graphene. *Nanotechnology*, **2014**, 25, 425703 | 3.4 | 2 |
| 51 | Chemical Basis of the Tribological Properties of AgTaO3 Crystal Surfaces. *Journal of Physical Chemistry C*, **2014**, 118, 17577-17584 | 3.8 | 14 |
| 50 | Tensile strength of I□crystalline cellulose predicted by molecular dynamics simulation. *Cellulose*, **2014**, 21, 2233-2245 | 5.5 | 82 |
| 49 | Stability and Structure of Nanometer-Thin Perfluoropolyether Films Using Molecular Simulations. *Tribology Letters*, **2014**, 54, 119-127 | 2.8 | 6 |
| 48 | Lubricious oxide coatings for extreme temperature applications: A review. *Surface and Coatings Technology*, **2014**, 257, 266-277 | 4.4 | 107 |
| 47 | Atomistic simulation of the load dependence of nanoscale friction on suspended and supported graphene. *Langmuir*, **2014**, 30, 14707-11 | 4 | 23 |
| 46 | 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 |

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| 45 | Structural and Chemical Evolution of the Near-Apex Region of an Atomic Force Microscope Tip Subject to Sliding. *Tribology Letters*, **2014**, 53, 181-187 | 2.8 | 10 |
| 44 | Carbon Nanotube Chirality Determines Efficiency of Electron Transfer to Fullerene in All-Carbon Photovoltaics. *Journal of Physical Chemistry Letters*, **2013**, 4, 2914-2918 | 6.4 | 43 |
| 43 | Effect of tip shape on atomic-friction at graphite step edges. *Applied Physics Letters*, **2013**, 103, 081601 | 3.4 | 29 |
| 42 | Progress in Tribology Through Integrated Simulations and Experiments. *Tribology Letters*, **2013**, 50, 1-1 | 2.8 | 1 |
| 41 | Correlation Between Probe Shape and Atomic Friction Peaks at Graphite Step Edges. *Tribology Letters*, **2013**, 50, 49-57 | 2.8 | 42 |
| 40 | Molecular dynamics simulation of atomic friction: A review and guide. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2013**, 31, 030801 | 2.9 | 109 |
| 39 | Crystalline cellulose elastic modulus predicted by atomistic models of uniform deformation and nanoscale indentation. *Cellulose*, **2013**, 20, 43-55 | 5.5 | 88 |
| 38 | Atomistic Simulation of Frictional Sliding Between Cellulose I Nanocrystals. *Tribology Letters*, **2013**, 52, 395-405 | 2.8 | 13 |
| 37 | Atomic roughness enhanced friction on hydrogenated graphene. *Nanotechnology*, **2013**, 24, 375701 | 3.4 | 77 |
| 36 | Structure-stability relationships for graphene-wrapped fullerene-coated carbon nanotubes. *Carbon*, **2013**, 61, 458-466 | 10.4 | 12 |
| 35 | Nano-scale roughness effects on hysteresis in micro-scale adhesive contact. *Tribology International*, **2013**, 58, 40-46 | 4.9 | 9 |
| 34 | Thermal expansion of self-organized and shear-oriented cellulose nanocrystal films. *Biomacromolecules*, **2013**, 14, 2900-8 | 6.9 | 119 |
| 33 | Environmental dependence of atomic-scale friction at graphite surface steps. *Physical Review B*, **2013**, 88, | 3.3 | 58 |
| 32 | Adaptive NbN/Ag coatings for high temperature tribological applications. *Surface and Coatings Technology*, **2012**, 206, 4316-4321 | 4.4 | 74 |
| 31 | Comment on "A Note on the Two-Spring Tomlinson Model" *Tribology Letters*, **2012**, 45, 225-226 | 2.8 | 1 |
| 30 | Lubricant Chemistry and Rheology Effects on Hydraulic Motor Starting Efficiency. *Tribology Transactions*, **2012**, 55, 549-557 | 1.8 | 9 |
| 29 | Measured and Predicted Static Friction for Real Rough Surfaces in Point Contact. *Journal of Tribology*, **2012**, 134, | 1.8 | 5 |
| 28 | Suppression of atomic friction under cryogenic conditions: The role of athermal instability in AFM measurements. *Europhysics Letters*, **2012**, 98, 16002 | 1.6 | 8 |

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| 27 | Thermal activation in atomic friction: revisiting the theoretical analysis. *Journal of Physics Condensed Matter*, **2012**, 24, 265001 | 1.8 | 18 |
| 26 | Protein high-force pulling simulations yield low-force results. *PLoS ONE*, **2012**, 7, e34781 | 3.7 | 3 |
| 25 | Speed dependence of atomic stick-slip friction in optimally matched experiments and molecular dynamics simulations. *Physical Review Letters*, **2011**, 106, 126101 | 7.4 | 138 |
| 24 | Cellulose nanomaterials review: structure, properties and nanocomposites. *Chemical Society Reviews*, **2011**, 40, 3941-94 | 58.5 | 4087 |
| 23 | Effect of molecular structure on liquid slip. *Physical Review E*, **2011**, 84, 066311 | 2.4 | 16 |
| 22 | The Roles of Statics and Dynamics in Determining Transitions Between Atomic Friction Regimes. *Tribology Letters*, **2011**, 42, 99-107 | 2.8 | 18 |
| 21 | Atomic Friction Modulation on the Reconstructed Au(111) Surface. *Tribology Letters*, **2011**, 43, 369-378 | 2.8 | 17 |
| 20 | Analytical Models for Atomic Friction. *Tribology Letters*, **2011**, 44, 367-386 | 2.8 | 63 |
| 19 | Model predictions of shear strain-induced ridge defects in graphene. *Carbon*, **2011**, 49, 3571-3578 | 10.4 | 10 |
| 18 | Confined fluid compressibility predicted using molecular dynamics simulation. *Tribology International*, **2011**, 44, 330-335 | 4.9 | 6 |
| 17 | Friction, slip and structural inhomogeneity of the buried interface. *Modelling and Simulation in Materials Science and Engineering*, **2011**, 19, 065003 | 2 | 16 |
| 16 | Viscosity Dependence of Static Friction in Lubricated Metallic Line Contacts. *Tribology Transactions*, **2011**, 54, 333-340 | 1.8 | 1 |
| 15 | Calculation of single chain cellulose elasticity using fully atomistic modeling. *Tappi Journal*, **2011**, 10, 37-42 | 0.5 | 7 |
| 14 | Rate theory description of atomic stick-slip friction. *Physical Review B*, **2010**, 81, | 3.3 | 30 |
| 13 | Rolling Contact Fatigue Performance of Vibro-Mechanical Textured Surfaces. *Tribology Transactions* , **2010**, 53, 610-620 | 1.8 | 31 |
| 12 | Compressibility of Thin Film Lubricants Characterized Using Atomistic Simulation. *Tribology Letters*, **2010**, 38, 33-38 | 2.8 | 14 |
| 11 | The role of fragility in EHL entrapment. *Tribology International*, **2010**, 43, 277-282 | 4.9 | 15 |
| 10 | A Multilevel Model for Elastic-Plastic Contact Between a Sphere and a Flat Rough Surface. *Journal of Tribology*, **2009**, 131, | 1.8 | 26 |

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| 9 | Low-Speed Atomistic Simulation of Stick-Slip Friction using Parallel Replica Dynamics. *Tribology Letters*, **2009**, 36, 63-68 | 2.8 | 31 |
| 8 | Slip at high shear rates. *Physical Review Letters*, **2008**, 100, 206001 | 7.4 | 97 |
| 7 | Molecular mechanisms of liquid slip. *Journal of Fluid Mechanics*, **2008**, 600, 257-269 | 3.7 | 81 |
| 6 | Enhancement of a simplified model for maximum stress prediction. *Tribology Letters*, **2007**, 27, 61-67 | 2.8 | 2 |
| 5 | Friction Reduction in Mixed Lubrication. *Tribology Letters*, **2007**, 28, 139-147 | 2.8 | 42 |
| 4 | Liquid slip in nanoscale channels as a rate process. *Physical Review Letters*, **2007**, 98, 226001 | 7.4 | 53 |
| 3 | Simulation of Sliding Wear in Mixed Lubrication. *Journal of Tribology*, **2007**, 129, 544-552 | 1.8 | 58 |
| 2 | Prediction of subsurface stress in elastic perfectly plastic rough components. *Tribology Letters*, **2006**, 23, 243-251 | 2.8 | 14 |
| 1 | Transient Three-Dimensional Solution for Thermoelastic Displacement Due to Surface Heating and Convective Cooling. *Journal of Tribology*, **2005**, 127, 750-755 | 1.8 | 11 |