

Michael Urbakh

List of Publications by Year in descending order

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181
papers

8,748
citations

36203

51
h-index

48187

88
g-index

183
all docs

183
docs citations

183
times ranked

5862
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | The nonlinear nature of friction. <i>Nature</i> , 2004, 430, 525-528. | 13.7 | 610 |
| 2 | <i>Colloquium</i> : Modeling friction: From nanoscale to mesoscale. <i>Reviews of Modern Physics</i> , 2013, 85, 529-552. | 16.4 | 436 |
| 3 | Structural superlubricity and ultralow friction across the length scales. <i>Nature</i> , 2018, 563, 485-492. | 13.7 | 382 |
| 4 | Robust microscale superlubricity in graphite/hexagonal boron nitride layered heterojunctions. <i>Nature Materials</i> , 2018, 17, 894-899. | 13.3 | 292 |
| 5 | Interfacial ferroelectricity by van der Waals sliding. <i>Science</i> , 2021, 372, 1462-1466. | 6.0 | 262 |
| 6 | Beyond the conventional description of dynamic force spectroscopy of adhesion bonds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 11378-11381. | 3.3 | 251 |
| 7 | Role of substrate unbinding in Michaelis-Menten enzymatic reactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 4391-4396. | 3.3 | 205 |
| 8 | Friction through Dynamical Formation and Rupture of Molecular Bonds. <i>Physical Review Letters</i> , 2004, 92, 135503. | 2.9 | 198 |
| 9 | Torque and Twist against Superlubricity. <i>Physical Review Letters</i> , 2008, 100, 046102. | 2.9 | 190 |
| 10 | Influence of Roughness on the Admittance of the Quartz Crystal Microbalance Immersed in Liquids. <i>Analytical Chemistry</i> , 2002, 74, 554-561. | 3.2 | 157 |
| 11 | Water transport inside carbon nanotubes mediated by phonon-induced oscillating friction. <i>Nature Nanotechnology</i> , 2015, 10, 692-695. | 15.6 | 142 |
| 12 | Multibond Dynamics of Nanoscale Friction: The Role of Temperature. <i>Physical Review Letters</i> , 2010, 104, 066104. | 2.9 | 136 |
| 13 | Observation of High-Speed Microscale Superlubricity in Graphite. <i>Physical Review Letters</i> , 2013, 110, 255504. | 2.9 | 131 |
| 14 | Statistical Mechanics of Static and Low-Velocity Kinetic Friction. <i>Advances in Chemical Physics</i> , 2003, , 187-272. | 0.3 | 127 |
| 15 | Dynamics of Transition from Static to Kinetic Friction. <i>Physical Review Letters</i> , 2009, 103, 194301. | 2.9 | 123 |
| 16 | Atomic Scale Engines: Cars and Wheels. <i>Physical Review Letters</i> , 2000, 84, 6058-6061. | 2.9 | 120 |
| 17 | Self-Assembly of Nanoparticle Arrays for Use as Mirrors, Sensors, and Antennas. <i>ACS Nano</i> , 2013, 7, 9526-9532. | 7.3 | 120 |
| 18 | Stick-Slip Motion and Force Fluctuations in a Driven Two-Wave Potential. <i>Physical Review Letters</i> , 1996, 77, 683-686. | 2.9 | 117 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Michaelis-Menten reaction scheme as a unified approach towards the optimal restart problem. <i>Physical Review E</i> , 2015, 92, 060101. | 0.8 | 116 |
| 20 | Influence of the Surface Morphology on the Quartz Crystal Microbalance Response in a Fluid. <i>Langmuir</i> , 1994, 10, 2836-2841. | 1.6 | 110 |
| 21 | Sliding friction of graphene/hexagonal boron nitride heterojunctions: a route to robust superlubricity. <i>Scientific Reports</i> , 2017, 7, 10851. | 1.6 | 108 |
| 22 | Effect of Surface Film Structure on the Quartz Crystal Microbalance Response in Liquids. <i>Langmuir</i> , 1996, 12, 6354-6360. | 1.6 | 104 |
| 23 | Nanoserpents: Graphene Nanoribbon Motion on Two-Dimensional Hexagonal Materials. <i>Nano Letters</i> , 2018, 18, 6009-6016. | 4.5 | 104 |
| 24 | Roughness effect on the frequency of a quartz-crystal resonator in contact with a liquid. <i>Physical Review B</i> , 1994, 49, 4866-4870. | 1.1 | 102 |
| 25 | Fundamentals and applications of self-assembled plasmonic nanoparticles at interfaces. <i>Chemical Society Reviews</i> , 2016, 45, 1581-1596. | 18.7 | 99 |
| 26 | Dynamic force spectroscopy: a Fokker-Planck approach. <i>Chemical Physics Letters</i> , 2002, 352, 499-504. | 1.2 | 91 |
| 27 | Double-layer capacitance on a rough metal surface. <i>Physical Review E</i> , 1996, 53, 6192-6199. | 0.8 | 90 |
| 28 | Dynamical Heat Channels. <i>Physical Review Letters</i> , 2003, 91, 194301. | 2.9 | 87 |
| 29 | Electrotunable Lubricity with Ionic Liquid Nanoscale Films. <i>Scientific Reports</i> , 2015, 5, 7698. | 1.6 | 87 |
| 30 | Electrotunable Friction with Ionic Liquid Lubricants: How Important Is the Molecular Structure of the Ions?. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3998-4004. | 2.1 | 87 |
| 31 | Modifying Friction by Manipulating Normal Response to Lateral Motion. <i>Physical Review Letters</i> , 1999, 82, 4823-4826. | 2.9 | 85 |
| 32 | A Model of Electrowetting, Reversed Electrowetting, and Contact Angle Saturation. <i>Langmuir</i> , 2011, 27, 6031-6041. | 1.6 | 80 |
| 33 | Collapse Dynamics of Single Proteins Extended by Force. <i>Biophysical Journal</i> , 2010, 98, 2692-2701. | 0.2 | 79 |
| 34 | Probing static disorder in Arrhenius kinetics by single-molecule force spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 11336-11340. | 3.3 | 65 |
| 35 | Double layer capacitance on a rough metal surface: Surface roughness measured by Debye ruler. <i>Electrochimica Acta</i> , 1997, 42, 2853-2860. | 2.6 | 64 |
| 36 | Single-molecule theory of enzymatic inhibition. <i>Nature Communications</i> , 2018, 9, 779. | 5.8 | 64 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Negative Friction Coefficients in Superlubric Graphite–Hexagonal Boron Nitride Heterojunctions. <i>Physical Review Letters</i> , 2019, 122, 076102. | 2.9 | 63 |
| 38 | Observation of normal-force-independent superlubricity in mesoscopic graphite contacts. <i>Physical Review B</i> , 2016, 94, . | 1.1 | 62 |
| 39 | Structural lubricity in soft and hard matter systems. <i>Nature Communications</i> , 2020, 11, 4657. | 5.8 | 62 |
| 40 | Temperature-Induced Enhancement of Nanoscale Friction. <i>Physical Review Letters</i> , 2009, 102, 136102. | 2.9 | 59 |
| 41 | Origin of stick-slip motion in a driven two-wave potential. <i>Physical Review E</i> , 1996, 54, 6485-6494. | 0.8 | 58 |
| 42 | Controlling chaotic frictional forces. <i>Physical Review E</i> , 1998, 57, 7340-7343. | 0.8 | 56 |
| 43 | Nonlinear Poisson–Boltzmann theory of a double layer at a rough metal/electrolyte interface: A new look at the capacitance data on solid electrodes. <i>Journal of Chemical Physics</i> , 1998, 108, 1715-1723. | 1.2 | 56 |
| 44 | Slow Cracklike Dynamics at the Onset of Frictional Sliding. <i>Physical Review Letters</i> , 2011, 107, 235501. | 2.9 | 56 |
| 45 | Stick-slip dynamics as a probe of frictional forces. <i>Europhysics Letters</i> , 1997, 39, 183-188. | 0.7 | 54 |
| 46 | Free and Bound States of Ions in Ionic Liquids, Conductivity, and Underscreening Paradox. <i>Physical Review X</i> , 2019, 9, . | 2.8 | 54 |
| 47 | Atomic Scale Friction and Different Phases of Motion of Embedded Molecular Systems. <i>Journal of Physical Chemistry B</i> , 1998, 102, 7924-7930. | 1.2 | 53 |
| 48 | Electrowetting with Electrolytes. <i>Physical Review Letters</i> , 2006, 97, 136102. | 2.9 | 53 |
| 49 | Friction on a Microstructured Elastomer Surface. <i>Tribology Letters</i> , 2013, 50, 3-15. | 1.2 | 53 |
| 50 | Water in Ionic Liquid Lubricants: Friend and Foe. <i>ACS Nano</i> , 2017, 11, 6825-6831. | 7.3 | 53 |
| 51 | Slippage at adsorbate–electrolyte interface. Response of electrochemical quartz crystal microbalance to adsorption. <i>Electrochimica Acta</i> , 2000, 45, 3615-3621. | 2.6 | 52 |
| 52 | Molecular Motor that Never Steps Backwards. <i>Physical Review Letters</i> , 2000, 85, 491-494. | 2.9 | 52 |
| 53 | Critical Length Limiting Superlow Friction. <i>Physical Review Letters</i> , 2015, 114, 055501. | 2.9 | 51 |
| 54 | Controllable Thermal Conductivity in Twisted Homogeneous Interfaces of Graphene and Hexagonal Boron Nitride. <i>Nano Letters</i> , 2020, 20, 7513-7518. | 4.5 | 50 |

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|----|---|-----|-----------|
| 55 | Stabilizing Stick-Slip Friction. <i>Physical Review Letters</i> , 2011, 107, 024301. | 2.9 | 46 |
| 56 | Static friction and the dynamics of interfacial rupture. <i>Physical Review B</i> , 2012, 86, . | 1.1 | 46 |
| 57 | Hopping around an entropic barrier created by force. <i>Biochemical and Biophysical Research Communications</i> , 2010, 403, 133-137. | 1.0 | 45 |
| 58 | Origin of Friction in Superlubric Graphite Contacts. <i>Physical Review Letters</i> , 2020, 125, 126102. | 2.9 | 44 |
| 59 | Theory of second-harmonic generation at the metal-electrolyte interface. <i>Physical Review B</i> , 1992, 45, 9339-9346. | 1.1 | 43 |
| 60 | DC currents in Hamiltonian systems by Lévy flights. <i>Physica D: Nonlinear Phenomena</i> , 2002, 170, 131-142. | 1.3 | 43 |
| 61 | Electrovariable Nanoplasmonics and Self-Assembling Smart Mirrors. <i>Journal of Physical Chemistry C</i> , 2010, 114, 1735-1747. | 1.5 | 43 |
| 62 | Temperature Dependence of Friction at the Nanoscale: When the Unexpected Turns Normal. <i>Tribology Letters</i> , 2010, 39, 311-319. | 1.2 | 43 |
| 63 | Ultra-Low-Voltage Electrowetting. <i>Journal of Physical Chemistry C</i> , 2010, 114, 14885-14890. | 1.5 | 43 |
| 64 | Behavior of Quartz Crystal Microbalance in Nonadsorbed Gases at High Pressures. <i>Langmuir</i> , 1995, 11, 674-678. | 1.6 | 40 |
| 65 | Single-Molecule Tribology: Force Microscopy Manipulation of a Porphyrin Derivative on a Copper Surface. <i>ACS Nano</i> , 2016, 10, 713-722. | 7.3 | 40 |
| 66 | Atomic Scale Friction: What can be Deduced from the Response to a Harmonic Drive?. <i>Physical Review Letters</i> , 1998, 81, 1227-1230. | 2.9 | 39 |
| 67 | Frictional Properties of Nanojunctions Including Atomically Thin Sheets. <i>Nano Letters</i> , 2016, 16, 1878-1883. | 4.5 | 39 |
| 68 | Mechanical and Tribological Properties of Layered Materials under High Pressure: Assessing the Importance of Many-Body Dispersion Effects. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 666-676. | 2.3 | 39 |
| 69 | Low friction and rotational dynamics of crystalline flakes in solid lubrication. <i>Europhysics Letters</i> , 2011, 95, 66002. | 0.7 | 38 |
| 70 | Coupled ion–interface dynamics and ion transfer across the interface of two immiscible liquids. <i>Journal of Chemical Physics</i> , 2002, 117, 6766-6779. | 1.2 | 37 |
| 71 | Dynamics of confined liquids under shear. <i>Physical Review E</i> , 1995, 51, 2137-2141. | 0.8 | 32 |
| 72 | Electronic distribution and second-harmonic generation at the metal-electrolyte interface. <i>Physical Review B</i> , 1993, 47, 6644-6650. | 1.1 | 29 |

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| 73 | Giant Stark effect in quantum dots at liquid/liquid interfaces: A new option for tunable optical filters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 18212-18214. | 3.3 | 29 |
| 74 | Reflection of light by metal nanoparticles at electrodes. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 1850. | 1.3 | 28 |
| 75 | Towards macroscale superlubricity. <i>Nature Nanotechnology</i> , 2013, 8, 893-894. | 15.6 | 28 |
| 76 | Roughness effect on the frictional force in boundary lubrication. <i>Physical Review E</i> , 1994, 49, 1424-1429. | 0.8 | 27 |
| 77 | Confined Molecules under Shear: From a Microscopic Description to Phenomenology. <i>Physical Review Letters</i> , 2001, 87, 275506. | 2.9 | 27 |
| 78 | Slip Sequences in Laboratory Experiments Resulting from Inhomogeneous Shear as Analogs of Earthquakes Associated with a Fault Edge. <i>Pure and Applied Geophysics</i> , 2011, 168, 2151-2166. | 0.8 | 27 |
| 79 | Temperature and velocity dependent friction of a microscale graphite-DLC heterostructure. <i>Friction</i> , 2020, 8, 462-470. | 3.4 | 27 |
| 80 | Electrotunable Lubrication with Ionic Liquids: the Effects of Cation Chain Length and Substrate Polarity. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 4105-4113. | 4.0 | 27 |
| 81 | Atomic-scale sliding friction on a contaminated surface. <i>Nanoscale</i> , 2018, 10, 6375-6381. | 2.8 | 26 |
| 82 | Load and Velocity Dependence of Friction Mediated by Dynamics of Interfacial Contacts. <i>Physical Review Letters</i> , 2019, 123, 116102. | 2.9 | 26 |
| 83 | Lateral Ordering in Nanoscale Ionic Liquid Films between Charged Surfaces Enhances Lubricity. <i>ACS Nano</i> , 2020, 14, 13256-13267. | 7.3 | 26 |
| 84 | Two-Fluid Model for the Interpretation of Quartz Crystal Microbalance Response: Tuning Properties of Polymer Brushes with Solvent Mixtures. <i>Journal of Physical Chemistry C</i> , 2013, 117, 4533-4543. | 1.5 | 25 |
| 85 | Mechanisms of Electrotunable Friction in Friction Force Microscopy Experiments with Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2018, 122, 5004-5012. | 1.5 | 25 |
| 86 | Principles of electrowetting with two immiscible electrolytic solutions. <i>Journal of Physics Condensed Matter</i> , 2006, 18, 2837-2869. | 0.7 | 23 |
| 87 | Single-Molecule Pulling Experiments: When the Stiffness of the Pulling Device Matters. <i>Biophysical Journal</i> , 2008, 95, L42-L44. | 0.2 | 23 |
| 88 | Accurate Quantification of Diffusion and Binding Kinetics of Non-Integral Membrane Proteins by FRAP. <i>Traffic</i> , 2011, 12, 1648-1657. | 1.3 | 23 |
| 89 | Formation and rupture of capillary bridges in atomic scale friction. <i>Journal of Chemical Physics</i> , 2012, 137, 164706. | 1.2 | 23 |
| 90 | The Princess and the Nanoscale Pea: Long-Range Penetration of Surface Distortions into Layered Materials Stacks. <i>ACS Nano</i> , 2019, 13, 7603-7609. | 7.3 | 23 |

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|-----|--|-----|-----------|
| 91 | Sheared liquids in the nanoscale range. <i>Journal of Chemical Physics</i> , 1995, 103, 10707-10713. | 1.2 | 22 |
| 92 | Structural Forces in Ionic Liquids: The Role of Ionic Size Asymmetry. <i>Journal of Physical Chemistry B</i> , 2022, 126, 1242-1253. | 1.2 | 21 |
| 93 | The Quartz Crystal Microbalance as a Tool for the Study of a "Liquidlike Layer" at the Ice/Metal Interface. <i>Journal of Physical Chemistry B</i> , 2003, 107, 12485-12491. | 1.2 | 20 |
| 94 | Manipulating Single Enzymes by an External Harmonic Force. <i>Physical Review Letters</i> , 2007, 98, 168302. | 2.9 | 20 |
| 95 | Mesoscale Engines by Nonlinear Friction. <i>Nano Letters</i> , 2007, 7, 837-842. | 4.5 | 20 |
| 96 | Electrotunable lubricity with ionic liquids: the influence of nanoscale roughness. <i>Faraday Discussions</i> , 2017, 199, 279-297. | 1.6 | 20 |
| 97 | Stick-slip dynamics of interfacial friction. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 249, 184-189. | 1.2 | 19 |
| 98 | Effect of tip flexibility on stick-slip motion in friction force microscopy experiments. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 354002. | 0.7 | 19 |
| 99 | Electrowetting Dynamics Facilitated by Pulsing. <i>Journal of Physical Chemistry C</i> , 2010, 114, 22558-22565. | 1.5 | 18 |
| 100 | Unravelling the optical responses of nanoplasmonic mirror-on-mirror metamaterials. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20486-20498. | 1.3 | 18 |
| 101 | Dependence of the Enzymatic Velocity on the Substrate Dissociation Rate. <i>Journal of Physical Chemistry B</i> , 2017, 121, 3437-3442. | 1.2 | 18 |
| 102 | Molecular motor with a built-in escapement device. <i>Europhysics Letters</i> , 2004, 68, 26-32. | 0.7 | 17 |
| 103 | Optical Properties of Ordered Self-Assembled Nanoparticle Arrays at Interfaces. <i>Journal of Physical Chemistry C</i> , 2014, 118, 23264-23273. | 1.5 | 17 |
| 104 | The breakdown of superlubricity by driving-induced commensurate dislocations. <i>Scientific Reports</i> , 2015, 5, 16134. | 1.6 | 17 |
| 105 | Random search with resetting as a strategy for optimal pollination. <i>Physical Review E</i> , 2019, 99, 052119. | 0.8 | 17 |
| 106 | Parity-Dependent Moiré Superlattices in Graphene Heterostructures: A Route to Mechanomutable Metamaterials. <i>Physical Review Letters</i> , 2021, 126, 216101. | 1.6 | 17 |
| 107 | Nanoparticles at electrified liquid-liquid interfaces: new options for electro-optics. <i>Faraday Discussions</i> , 2009, 143, 109. | 1.6 | 16 |
| 108 | Probing and tuning frictional aging at the nanoscale. <i>Scientific Reports</i> , 2013, 3, 1896. | 1.6 | 16 |

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|-----|---|------|-----------|
| 109 | Nanoscale Friction under Electrochemical Control. <i>Physical Review Letters</i> , 2014, 112, 055502. | 2.9 | 16 |
| 110 | Load-velocity-temperature relationship in frictional response of microscopic contacts. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 137, 103880. | 2.3 | 16 |
| 111 | Mechanisms of frictional energy dissipation at graphene grain boundaries. <i>Physical Review B</i> , 2021, 103, . | 1.1 | 16 |
| 112 | Inverted stick-slip friction: What is the mechanism?. <i>Journal of Chemical Physics</i> , 2002, 116, 6871-6874. | 1.2 | 15 |
| 113 | Electrotunable Friction in Diluted Room Temperature Ionic Liquids: Implications for Nanotribology. <i>ACS Applied Nano Materials</i> , 2020, 3, 10708-10719. | 2.4 | 15 |
| 114 | Macroscopic versus microscopic description of friction: from Tomlinson model to shearons. <i>Tribology Letters</i> , 2000, 9, 45-54. | 1.2 | 14 |
| 115 | Diffusion through Bifurcations in Oscillating Nano- and Microscale Contacts: Fundamentals and Applications. <i>Physical Review X</i> , 2015, 5, . | 2.8 | 14 |
| 116 | Load-induced dynamical transitions at graphene interfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 12618-12623. | 3.3 | 14 |
| 117 | Superlubric polycrystalline graphene interfaces. <i>Nature Communications</i> , 2021, 12, 5694. | 5.8 | 14 |
| 118 | Chemical Control of Friction: Mixed Lubricant Monolayers. <i>Tribology Letters</i> , 2002, 12, 217-227. | 1.2 | 12 |
| 119 | Surface tension and ion transfer across the interface of two immiscible electrolytes. <i>Electrochemistry Communications</i> , 2004, 6, 693-699. | 2.3 | 12 |
| 120 | Anisotropic Interlayer Force Field for Transition Metal Dichalcogenides: The Case of Molybdenum Disulfide. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 7237-7245. | 2.3 | 12 |
| 121 | Catalytic Growth of Ultralong Graphene Nanoribbons on Insulating Substrates. <i>Advanced Materials</i> , 2022, 34, e2200956. | 11.1 | 12 |
| 122 | Velocity Profiles and the Brinkman Equation in Nanoscale Confined Liquids. <i>Europhysics Letters</i> , 1995, 32, 125-130. | 0.7 | 11 |
| 123 | Frictional forces in an electrolytic environment. <i>Physical Review E</i> , 1999, 59, 1921-1931. | 0.8 | 11 |
| 124 | Analyzing friction forces with the Jarzynski equality. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 354008. | 0.7 | 11 |
| 125 | Voltage-dependent capacitance of metallic nanoparticles at a liquid/liquid interface. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 1371-1380. | 1.3 | 11 |
| 126 | Friction and adhesion mediated by supramolecular host-guest complexes. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9248-9254. | 1.3 | 11 |

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|-----|---|------|-----------|
| 127 | Structural Forces in Mixtures of Ionic Liquids with Organic Solvents. Langmuir, 2019, 35, 15410-15420. | 1.6 | 11 |
| 128 | Effect of capillary waves on the double layer capacitance of the interface between two immiscible electrolytes. Electrochimica Acta, 1999, 45, 685-690. | 2.6 | 10 |
| 129 | Embedded systems under shear: Relationship between shear-induced modes and frictional behavior. Europhysics Letters, 2000, 50, 326-332. | 0.7 | 10 |
| 130 | The distinctive electrowetting properties of ITIES. Journal of Physics Condensed Matter, 2007, 19, 375113. | 0.7 | 10 |
| 131 | The effect of electric field on capillary waves at the interface of two immiscible electrolytes. Chemical Physics Letters, 1999, 309, 137-142. | 1.2 | 9 |
| 132 | ITIES fluctuations induced by easily transferable ions. Chemical Physics, 2005, 319, 253-260. | 0.9 | 9 |
| 133 | Multivalent Adhesion and Friction Dynamics Depend on Attachment Flexibility. Journal of Physical Chemistry C, 2017, 121, 15888-15896. | 1.5 | 9 |
| 134 | Model for Bundling of Keratin Intermediate Filaments. Biophysical Journal, 2020, 119, 65-74. | 0.2 | 9 |
| 135 | Directional anisotropy of friction in microscale superlubric graphite/BN heterojunctions. Physical Review Materials, 2021, 5, . | | |
| 136 | Electron tunneling through a dielectric barrier. Journal of Chemical Physics, 1994, 101, 8224-8237. | 1.2 | 8 |
| 137 | The effect of lateral vibrations on transport and friction in nanoscale contacts. Tribology International, 2007, 40, 967-972. | 3.0 | 8 |
| 138 | Structural effects in nanotribology of nanoscale films of ionic liquids confined between metallic surfaces. Physical Chemistry Chemical Physics, 2021, 23, 22174-22183. | 1.3 | 8 |
| 139 | Saltatory drift in a randomly driven two-wave potential. Journal of Physics Condensed Matter, 2005, 17, S3697-S3707. | 0.7 | 7 |
| 140 | Effects of molecule anchoring and dispersion on nanoscopic friction under electrochemical control. Journal of Physics Condensed Matter, 2016, 28, 105001. | 0.7 | 7 |
| 141 | Flatlands in the Holy Land: The Evolution of Layered Materials Research in Israel. Advanced Materials, 2018, 30, e1706581. | 11.1 | 7 |
| 142 | Direct Measurement of Adhesions of Liquids on Graphite. Journal of Physical Chemistry C, 2019, 123, 11671-11676. | 1.5 | 7 |
| 143 | Static friction boost in edge-driven incommensurate contacts. Physical Review Materials, 2018, 2, . | 0.9 | 7 |
| 144 | Control of friction by shear induced phase transitions. Physical Review B, 2002, 66, . | 1.1 | 6 |

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|-----|--|-----|-----------|
| 145 | Manipulations of Individual Molecules by Scanning Probes. <i>Nano Letters</i> , 2003, 3, 795-798. | 4.5 | 6 |
| 146 | Light-driven molecular machine at ITIES. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 375111. | 0.7 | 6 |
| 147 | Registry-Dependent Peeling of Layered Material Interfaces: The Case of Graphene Nanoribbons on Hexagonal Boron Nitride. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 43533-43539. | 4.0 | 6 |
| 148 | Looking at Friction through Shearons. <i>Journal of Physical Chemistry B</i> , 2000, 104, 3791-3794. | 1.2 | 5 |
| 149 | Direct energy transfer at electrified liquid-liquid interfaces: a way to study interface morphology on mesoscopic scales. <i>Electrochemistry Communications</i> , 2004, 6, 703-707. | 2.3 | 5 |
| 150 | Some new aspects of Lévy walks and flights: directed transport, manipulation through flights and population exchange. <i>Physica D: Nonlinear Phenomena</i> , 2004, 187, 89-99. | 1.3 | 5 |
| 151 | Ion emission from ferroelectric media. <i>Journal of Applied Physics</i> , 1992, 72, 1952-1954. | 1.1 | 4 |
| 152 | Deducing energy dissipation from rheological response. <i>Journal of Chemical Physics</i> , 1999, 110, 1263-1266. | 1.2 | 4 |
| 153 | Thermal Friction Enhancement in Zwitterionic Monolayers. <i>Journal of Physical Chemistry C</i> , 2022, 126, 2797-2805. | 1.5 | 4 |
| 154 | The escape of a particle from a driven harmonic potential to an attractive surface. <i>Journal of Chemical Physics</i> , 2006, 125, 204705. | 1.2 | 3 |
| 155 | Friction through reversible jumps of surface atoms. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 315005. | 0.7 | 3 |
| 156 | Negative tension controls stability and structure of intermediate filament networks. <i>Scientific Reports</i> , 2022, 12, 16. | 1.6 | 3 |
| 157 | Interlayer Registry Index of Layered Transition Metal Dichalcogenides. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 3353-3359. | 2.1 | 3 |
| 158 | Microscopic mechanisms of frictional aging. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 166, 104944. | 2.3 | 3 |
| 159 | Dynamics of molecules near interfaces. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1996, 102, 29-33. | 2.0 | 2 |
| 160 | Following Single Molecules by Force Spectroscopy. <i>Israel Journal of Chemistry</i> , 2004, 44, 363-372. | 1.0 | 2 |
| 161 | Actin-based motility: cooperative symmetry-breaking and phases of motion. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S3929-S3944. | 0.7 | 2 |
| 162 | Functionalized Liquid-Liquid Interfaces. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 370301. | 0.7 | 2 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 163 | Electrotunable wetting, and micro- and nanofluidics: general discussion. Faraday Discussions, 2017, 199, 195-237. | 1.6 | 2 |
| 164 | Life time of catch bond clusters. Physica A: Statistical Mechanics and Its Applications, 2018, 507, 398-405. | 1.2 | 2 |
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