Laurent Joly

List of Publications by Year
in descending order

49	3,213	218677	197818
papers	citations	26 h-index	49 g-index

49	49	49	3219
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fast and versatile thermo-osmotic flows with a pinch of salt. Nanoscale, 2022, 14, 626-631.	5.6	8
2	Ultra-high liquidâ€“solid thermal resistance using nanostructured gold surfaces coated with graphene. Applied Physics Letters, 2022, 120, .	3.3	7
3	Connection between waterâ€™s dynamical and structural properties: Insights from ab initio simulations. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2121641119.	7.1	9
4	Electrokinetic sweeping of colloids at a reactive magnesium oxide interface. Soft Matter, 2021, 17, 8705-8711.	2.7	3
5	Theoretical framework for the atomistic modeling of frequency-dependent liquid-solid friction. Physical Review Research, 2021, 3, .	3.6	2
6	Osmotic Transport at the Aqueous Graphene and hBN Interfaces: Scaling Laws from a Unified, First-Principles Description. ACS Nano, 2021, 15, 15249-15258.	14.6	21
7	Enhanced local viscosity around colloidal nanoparticles probed by Equilibrium Molecular Dynamics Simulations. Journal of Chemical Physics, 2021, 155, 174701.	3.0	2
8	Fast increase of nanofluidic slip in supercooled water: the key role of dynamics. Nanoscale, 2020, 12, 20396-20403.	5.6	20
9	Ab initio nanofluidics: disentangling the role of the energy landscape and of density correlations on liquid/solid friction. Nanoscale, 2020, 12, 10994-11000.	5.6	27
10	Liquid-Solid Slip on Charged Walls: The Dramatic Impact of Charge Distribution. Physical Review Letters, 2020, 125, 014501.	7.8	61
11	Molecular modeling of aqueous electrolytes at interfaces: Effects of long-range dispersion forces and of ionic charge rescaling. Journal of Chemical Physics, 2020, 152, 241102.	3.0	22
12	Large effect of lateral box size in molecular dynamics simulations of liquid-solid friction. Physical Review E, 2019, 100, 023101.	2.1	9
13	Green-Kubo measurement of liquid-solid friction in finite-size systems. Journal of Chemical Physics, 2019, 151, .	3.0	21
14	Shear force measurement of the hydrodynamic wall position in molecular dynamics. Journal of Chemical Physics, 2019, 151, 041103.	3.0	24
15	Giant Thermoelectric Response of Nanofluidic Systems Driven by Water Excess Enthalpy. Physical Review Letters, 2019, 123, 138001.	7.8	27
16	Molecular dynamics study of nanoconfined TIP4P/2005 water: how confinement and temperature affect diffusion and viscosity. Physical Chemistry Chemical Physics, 2019, 21, 13653-13667.	2.8	59
17	Tribological Performance of the R1233zd Refrigerant in Extreme Confinement at the Nanoasperity Level: A Molecular Dynamics Study Using an ab Initio-Based Force Field. Tribology Letters, 2019, 67, 1.	2.6	3
18	Full characterization of the hydrodynamic boundary condition at the atomic scale using an oscillating channel: Identification of the viscoelastic interfacial friction and the hydrodynamic boundary position. Physical Review Fluids, 2019, 4, .	2.5	9

#	Article	IF	Citations
19	Chemical Physics at Interfaces within a Refrigerant-Lubricated Contact: From Electronic Structure to Large-Scale Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2018, 122, 5420-5429.	3.1	8
20	Understanding Fast and Robust Thermo-osmotic Flows through Carbon Nanotube Membranes: Thermodynamics Meets Hydrodynamics. Journal of Physical Chemistry Letters, 2018, 9, 2086-2092.	4.6	43
21	Orders of Magnitude Changes in the Friction of an Ionic Liquid on Carbonaceous Surfaces. Journal of Physical Chemistry C, 2018, 122, 2145-2154.	3.1	21
22	Viscosity and self-diffusion of supercooled and stretched water from molecular dynamics simulations. Journal of Chemical Physics, 2018, 149, 094503.	3.0	62
23	Measuring surface charge: Why experimental characterization and molecular modeling should be coupled. Current Opinion in Colloid and Interface Science, 2018, 37, 101-114.	7.4	39
24	Nanoscale Dynamics versus Surface Interactions: What Dictates Osmotic Transport?. Journal of Physical Chemistry Letters, 2017, 8, 478-483.	4.6	30
25	Electro-osmosis at surfactant-laden liquidâ€“gas interfaces: beyond standard models. Soft Matter, 2017, 13, 3341-3351.	2.7	8
26	Molecular dynamics analysis of the friction between a water-methanol liquid mixture and a non-polar solid crystal surface. Journal of Chemical Physics, 2017, 146, 174702.	3.0	10
27	Decoupling of viscosity and relaxation processes in supercooled water: a molecular dynamics study with the TIP4P/2005f model. Physical Chemistry Chemical Physics, 2017, 19, 2124-2130.	2.8	37
28	Communication: Truncated non-bonded potentials can yield unphysical behavior in molecular dynamics simulations of interfaces. Journal of Chemical Physics, 2017, 147, 121102.	3.0	13
29	Assessment of elastic models in supercooled water: A molecular dynamics study with the TIP4P/2005f force field. Journal of Chemical Physics, 2017, 147, 014504.	3.0	10
30	What Controls Thermo-osmosis? Molecular Simulations Show the Critical Role of Interfacial Hydrodynamics. Physical Review Letters, 2017, 119, 214501.	7.8	75
31	Electrokinetic transport in liquid foams. Advances in Colloid and Interface Science, 2017, 247, 477-490.	14.7	18
32	Extraction of the solid-liquid friction coefficient between a water-methanol liquid mixture and a non-polar solid crystal surface by Green-Kubo equations. Mechanical Engineering Letters, 2017, 3, 17-00422-17-00422.	0.6	8
33	Rheology of an Ionic Liquid with Variable Carreau Exponent: A Full Picture by Molecular Simulation with Experimental Contribution. Tribology Letters, 2016, 64, 1.	2.6	21
34	Anomalous capillary filling and wettability reversal in nanochannels. Physical Review E, 2016, 93, 033123.	2.1	43
35	The Carbon-Water Interface: Modeling Challenges and Opportunities for the Water-Energy Nexus. Annual Review of Chemical and Biomolecular Engineering, 2016, 7, 533-556.	6.8	72
36	Strong Coupling between Nanofluidic Transport and Interfacial Chemistry: How Defect Reactivity Controls Liquidâ€“Solid Friction through Hydrogen Bonding. Journal of Physical Chemistry Letters, 2016, 7, 1381-1386.	4.6	33

#	Article	IF	Citations
37	Nanolubrication by ionic liquids: molecular dynamics simulations reveal an anomalous effective rheology. Physical Chemistry Chemical Physics, 2015, 17, 23226-23235.	2.8	34
38	Large permeabilities of hourglass nanopores: From hydrodynamics to single file transport. Journal of Chemical Physics, 2014, 141, 18C526.	3.0	86
39	Friction of Water on Graphene and Hexagonal Boron Nitride from Ab Initio Methods: Very Different Slippage Despite Very Similar Interface Structures. Nano Letters, 2014, 14, 6872-6877.	9.1	326
40	Anomalous<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î¶</mml:mi></mml:math>Potential in Foam Films. Physical Review Letters, 2014, 113, 088301.	7.8	35
41	Optimizing water permeability through the hourglass shape of aquaporins. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16367-16372.	7.1	194
42	Ultralow Liquid/Solid Friction in Carbon Nanotubes: Comprehensive Theory for Alcohols, Alkanes, OMCTS, and Water. Langmuir, 2012, 28, 14261-14272.	3.5	110
43	Capillary filling with giant liquid/solid slip: Dynamics of water uptake by carbon nanotubes. Journal of Chemical Physics, 2011, 135, 214705.	3.0	90
44	Molecular Origin of Fast Water Transport in Carbon Nanotube Membranes: Superlubricity versus Curvature Dependent Friction. Nano Letters, 2010, 10, 4067-4073.	9.1	666
45	Heat transfer from nanoparticles: A corresponding state analysis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15113-15118.	7.1	186
46	Probing the Nanohydrodynamics at Liquid-Solid Interfaces Using Thermal Motion. Physical Review Letters, 2006, 96, 046101.	7.8	139
47	Liquid friction on charged surfaces: From hydrodynamic slippage to electrokinetics. Journal of Chemical Physics, 2006, 125, 204716.	3.0	178
48	Diffusion in pores and its dependence on boundary conditions. Journal of Physics Condensed Matter, 2005, 17, S4075-S4090.	1.8	28
49	Hydrodynamics within the Electric Double Layer on Slipping Surfaces. Physical Review Letters, 2004, 93, 257805.	7.8	256