

Carlos Drummond

List of Publications by Year in descending order

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Version: 2024-02-01

63
papers

2,694
citations

218381

26
h-index

174990

52
g-index

65
all docs

65
docs citations

65
times ranked

3459
citing authors

#	ARTICLE	IF	CITATIONS
1	Solutions of Negatively Charged Graphene Sheets and Ribbons. Journal of the American Chemical Society, 2008, 130, 15802-15804.	6.6	444
2	Surfactant-free single-layer graphene in water. Nature Chemistry, 2017, 9, 347-352.	6.6	175
3	Amontons' law at the molecular level. Tribology Letters, 1998, 4, 95-101.	1.2	153
4	Fundamental studies of crude oil's surface water interactions and its relationship to reservoir wettability. Journal of Petroleum Science and Engineering, 2004, 45, 61-81.	2.1	147
5	Surface forces and wettability. Journal of Petroleum Science and Engineering, 2002, 33, 123-133.	2.1	133
6	Friction between two weakly adhering boundary lubricated surfaces in water. Physical Review E, 2003, 67, 066110.	0.8	102
7	Deconstructing Graphite: Graphenide Solutions. Accounts of Chemical Research, 2013, 46, 129-137.	7.6	99
8	Dynamic Behavior of Confined Branched Hydrocarbon Lubricant Fluids under Shear. Macromolecules, 2000, 33, 4910-4920.	2.2	95
9	Dynamic phase transitions in confined lubricant fluids under shear. Physical Review E, 2001, 63, 041506.	0.8	94
10	Coupling of Normal and Transverse Motions during Frictional Sliding. Journal of Physical Chemistry B, 1998, 102, 5038-5041.	1.2	91
11	Microtribology and Direct Force Measurement of WS ₂ Nested Fullerene-Like Nanostructures. Advanced Materials, 1999, 11, 934-937.	11.1	83
12	Graphene solutions. Chemical Communications, 2011, 47, 5470-5472.	2.2	78
13	Ions at interfaces: the central role of hydration and hydrophobicity. Current Opinion in Colloid and Interface Science, 2016, 23, 19-28.	3.4	78
14	Microtribology and Friction-Induced Material Transfer in WS ₂ Nanoparticle Additives. Advanced Functional Materials, 2001, 11, 348-354.	7.8	64
15	Electric-Field-Induced Friction Reduction and Control. Physical Review Letters, 2012, 109, 154302.	2.9	60
16	Solutions of fully exfoliated individual graphene flakes in low boiling point solvents. Soft Matter, 2012, 8, 7882.	1.2	46
17	Adsorption of Milk Proteins (β -Casein and β -Lactoglobulin) and BSA onto Hydrophobic Surfaces. Materials, 2017, 10, 893.	1.3	46
18	Shear alignment of confined hydrocarbon liquid films. Physical Review E, 2002, 66, 011705.	0.8	41

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19	Water-Ions Induced Nanostructuring of Hydrophobic Polymer Surfaces. ACS Nano, 2011, 5, 2939-2947.	7.3	41
20	Portrait of carbon nanotube salts as soluble polyelectrolytes. Soft Matter, 2011, 7, 7998.	1.2	38
21	Inverted stick-slip friction. Europhysics Letters, 2001, 55, 653-659.	0.7	34
22	Substrate Remote Control of Polymer Film Surface Mobility. Macromolecules, 2012, 45, 1001-1005.	2.2	34
23	Surfactant Boundary Lubricant Film Modified by an Amphiphilic Diblock Copolymer. Langmuir, 2005, 21, 2779-2788.	1.6	30
24	Behavior of adhesive boundary lubricated surfaces under shear: A new dynamic transition. Europhysics Letters, 2002, 58, 503-509.	0.7	29
25	In situ imaging of shearing contacts in the surface forces apparatus. Wear, 2000, 245, 190-195.	1.5	27
26	Anions make the difference: insights from the interaction of big cations and anions with poly(N-isopropylacrylamide) chains and microgels. Soft Matter, 2015, 11, 5077-5086.	1.2	26
27	Raman Signatures of Single Layer Graphene Dispersed in Degassed Water, "Eau de Graphene"™. Journal of Physical Chemistry C, 2016, 120, 28204-28214.	1.5	25
28	Effect of organic and inorganic ions on the lower critical solution transition and aggregation of PNIPAM. Soft Matter, 2018, 14, 7818-7828.	1.2	25
29	Some fundamental differences in the adhesion and friction of rough versus smooth surfaces. Tribology Series, 2000, 38, 3-12.	0.1	22
30	Boundary lubricant films under shear: Effect of roughness and adhesion. Journal of Chemical Physics, 2007, 126, 184906.	1.2	21
31	Dendritic Carrier Based on PEG: Design and Degradation of Acid-sensitive Dendrimer-like Poly(ethylene Terephthalate) Grafts. Journal of Physical Chemistry C, 2011, 115, 10784-10791.	2.0	20
32	Protein-surface interactions at the nanoscale: Atomistic simulations with implicit solvent models. Current Opinion in Colloid and Interface Science, 2019, 41, 40-49.	3.4	20
33	Single layer nano graphene platelets derived from graphite nanofibres. Nanoscale, 2016, 8, 8810-8818.	2.8	19
34	Design of Stimuli-Responsive Surfaces Prepared by Surface Segregation of Polypeptide-b-polystyrene Diblock Copolymers. Macromolecules, 2008, 41, 1053-1056.	2.2	18
35	"Eau de graphene" from a KC ₈ graphite intercalation compound prepared by a simple mixing of graphite and molten potassium. Physica Status Solidi - Rapid Research Letters, 2016, 10, 895-899.	1.2	17
36	Can Polyoxometalates Be Considered as Superchaotropic Ions?. Journal of Physical Chemistry C, 2019, 123, 28744-28752.	1.5	17

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37	Ions in an AC Electric Field: Strong Long-Range Repulsion between Oppositely Charged Surfaces. <i>Physical Review Letters</i> , 2020, 125, 056001.	2.9	17
38	Reinforcement of a Surfactant Boundary Lubricant Film by a Hydrophilic~Hydrophilic Diblock Copolymer. <i>Langmuir</i> , 2008, 24, 1560-1565.	1.6	15
39	Boundary Lubricant Polymer Films: Effect of Cross-Linking. <i>Langmuir</i> , 2013, 29, 12936-12949.	1.6	15
40	Experimental Study and Modeling of Boundary Lubricant Polyelectrolyte Films. <i>Macromolecules</i> , 2015, 48, 2244-2253.	2.2	15
41	Interaction of organic ions with proteins. <i>Soft Matter</i> , 2017, 13, 1120-1131.	1.2	15
42	Behavior of adhesive boundary lubricated surfaces under shear: Effect of grafted diblock copolymers. <i>European Physical Journal E</i> , 2004, 15, 159-165.	0.7	13
43	Ions-Induced Nanostructuring: Effect of Specific Ionic Adsorption on Hydrophobic Polymer Surfaces. <i>Journal of Physical Chemistry B</i> , 2013, 117, 6814-6822.	1.2	11
44	Compliant Surfaces under Shear: Elastohydrodynamic Lift Force. <i>Langmuir</i> , 2019, 35, 15605-15613.	1.6	11
45	Electrowetting of Weak Polyelectrolyte-Coated Surfaces. <i>Langmuir</i> , 2017, 33, 4996-5005.	1.6	10
46	Spatial Heterogeneity of Glassy Polymer Films. <i>Macromolecules</i> , 2015, 48, 2787-2792.	2.2	9
47	On the conformational state of molecules in molecularly thin shearing films. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E4973.	3.3	9
48	Interaction between Compliant Surfaces: How Soft Surfaces Can Reduce Friction. <i>Langmuir</i> , 2019, 35, 15723-15728.	1.6	9
49	Effect of Surfactant Oligomerization Degree on Lubricant Properties of Mixed Surfactant-Diblock Copolymer Films. <i>Tribology Letters</i> , 2010, 39, 31-38.	1.2	8
50	Electro-responsive polyelectrolyte-coated surfaces. <i>Faraday Discussions</i> , 2017, 199, 335-347.	1.6	7
51	Hydroxide Ions Stabilize Open Carbon Nanotubes in Degassed Water. <i>ACS Nano</i> , 2018, 12, 8606-8615.	7.3	7
52	Triblock Copolymer Lubricant Films under Shear: Effect of Molecular Cross-Linking. <i>Journal of Adhesion</i> , 2007, 83, 431-448.	1.8	6
53	Electroresponsive Weak Polyelectrolyte Brushes. <i>Macromolecules</i> , 2022, 55, 2636-2648.	2.2	3
54	Delamination and Renovation of a Molecular Surfactant~Polymer Boundary Lubricant Film. <i>Langmuir</i> , 2009, 25, 11472-11479.	1.6	2

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55	Electroactuators: from understanding to micro-robotics and energy conversion: general discussion. Faraday Discussions, 2017, 199, 525-545.	1.6	2
56	Electrotunable wetting, and micro- and nanofluidics: general discussion. Faraday Discussions, 2017, 199, 195-237.	1.6	2
57	Weak polyelectrolyte brushes: re-entrant swelling and self-organization. Soft Matter, 2020, 16, 7727-7738.	1.2	2
58	Spontaneous Structuration of Hydrophobic Polymer Surfaces in Contact with Salt Solutions. , 2015, , 257-272.		1
59	Surface Forces Apparatus in Nanotribology. Nanoscience and Technology, 2015, , 17-34.	1.5	1
60	Inverted stick-slip friction between two molecularly smooth adhesive surfaces sliding in a solution. Tribology Series, 2001, 39, 875-882.	0.1	0
61	Contact Interaction of Double-Chained Surfactant Layers on Silica: Bilayer Rupture and Capillary Bridge Formation. Langmuir, 2013, 29, 14473-14481.	1.6	0
62	Nanotribology and voltage-controlled friction: general discussion. Faraday Discussions, 2017, 199, 349-376.	1.6	0
63	Nonconventional Methods for Patterning Polymer Surfaces. , 2015, , 1-21.		0