

Rogério Manica

List of Publications by Year in descending order

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80
papers

3,004
citations

136740

32
h-index

168136

53
g-index

80
all docs

80
docs citations

80
times ranked

1718
citing authors

#	ARTICLE	IF	CITATIONS
1	Film drainage and coalescence between deformable drops and bubbles. <i>Soft Matter</i> , 2011, 7, 2235-2264.	1.2	342
2	Dynamic Forces Between Two Deformable Oil Droplets in Water. <i>Science</i> , 2006, 313, 210-213.	6.0	234
3	Dynamic interactions between microbubbles in water. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 11177-11182.	3.3	179
4	Theory of non-equilibrium force measurements involving deformable drops and bubbles. <i>Advances in Colloid and Interface Science</i> , 2011, 165, 70-90.	7.0	118
5	Repulsive van der Waals Forces in Soft Matter: Why Bubbles Do Not Stick to Walls. <i>Physical Review Letters</i> , 2011, 106, 064501.	2.9	101
6	Measurement of Dynamical Forces between Deformable Drops Using the Atomic Force Microscope. I. Theory. <i>Langmuir</i> , 2005, 21, 2912-2922.	1.6	97
7	Hydrodynamics of liquid-liquid Taylor flow in microchannels. <i>Chemical Engineering Science</i> , 2013, 92, 180-189.	1.9	86
8	Coalescence of Bubbles with Mobile Interfaces in Water. <i>Physical Review Letters</i> , 2019, 122, 194501.	2.9	73
9	An extended Bretherton model for long Taylor bubbles at moderate capillary numbers. <i>Physics of Fluids</i> , 2014, 26, .	1.6	72
10	Hydrodynamic forces involving deformable interfaces at nanometer separations. <i>Physics of Fluids</i> , 2008, 20, 032101.	1.6	71
11	Dynamics of Interactions Involving Deformable Drops: Hydrodynamic Dimpling under Attractive and Repulsive Electrical Double Layer Interactions. <i>Langmuir</i> , 2007, 23, 626-637.	1.6	69
12	Spatiotemporal Evolution of Thin Liquid Films during Impact of Water Bubbles on Glass on a Micrometer to Nanometer Scale. <i>Physical Review Letters</i> , 2012, 108, 247803.	2.9	64
13	Simulation of sudden expansion flows for power-law fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2004, 121, 35-40.	1.0	63
14	Force Balance Model for Bubble Rise, Impact, and Bounce from Solid Surfaces. <i>Langmuir</i> , 2015, 31, 6763-6772.	1.6	59
15	The hydrodynamics of bubble rise and impact with solid surfaces. <i>Advances in Colloid and Interface Science</i> , 2016, 235, 214-232.	7.0	56
16	Precision AFM Measurements of Dynamic Interactions between Deformable Drops in Aqueous Surfactant and Surfactant-Free Solutions. <i>Langmuir</i> , 2011, 27, 2676-2685.	1.6	53
17	Universal Behavior of the Initial Stage of Drop Impact. <i>Physical Review Letters</i> , 2014, 113, 194501.	2.9	48
18	Homo- and hetero-interactions between air bubbles and oil droplets measured by atomic force microscopy. <i>Soft Matter</i> , 2011, 7, 8977.	1.2	46

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19	Transient Responses of a Wetting Film to Mechanical and Electrical Perturbations. <i>Langmuir</i> , 2008, 24, 1381-1390.	1.6	45
20	Dynamic deformations and forces in soft matter. <i>Soft Matter</i> , 2009, 5, 2858.	1.2	45
21	Effect of Approach Velocity on Thin Liquid Film Drainage between an Air Bubble and a Flat Solid Surface. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5573-5584.	1.5	45
22	Drainage of the air-water-quartz film: experiments and theory. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 1434-1439.	1.3	43
23	The impact and bounce of air bubbles at a flat fluid interface. <i>Soft Matter</i> , 2016, 12, 3271-3282.	1.2	43
24	Coalescence Dynamics of Mobile and Immobile Fluid Interfaces. <i>Langmuir</i> , 2018, 34, 2096-2108.	1.6	41
25	Combined AFM Confocal Microscopy of Oil Droplets: Absolute Separations and Forces in Nanofilms. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 961-965.	2.1	40
26	BEM simulations of potential flow with viscous effects as applied to a rising bubble. <i>Engineering Analysis With Boundary Elements</i> , 2011, 35, 489-494.	2.0	40
27	Interpreting the Dynamic Interaction between a Very Small Rising Bubble and a Hydrophilic Titania Surface. <i>Journal of Physical Chemistry C</i> , 2010, 114, 1942-1946.	1.5	39
28	Simultaneous measurement of dynamic force and spatial thin film thickness between deformable and solid surfaces by integrated thin liquid film force apparatus. <i>Soft Matter</i> , 2016, 12, 9105-9114.	1.2	39
29	Dynamic interactions between drops—a critical assessment. <i>Soft Matter</i> , 2008, 4, 1613.	1.2	38
30	Mobile or Immobile? Rise Velocity of Air Bubbles in High-Purity Water. <i>Journal of Physical Chemistry C</i> , 2019, 123, 15131-15138.	1.5	38
31	Dynamic Forces between a Moving Particle and a Deformable Drop. <i>Journal of Physical Chemistry C</i> , 2008, 112, 567-574.	1.5	37
32	Viscosity Effects on Hydrodynamic Drainage Force Measurements Involving Deformable Bodies. <i>Langmuir</i> , 2010, 26, 11921-11927.	1.6	33
33	Effects of hydrodynamic film boundary conditions on bubble-wall impact. <i>Soft Matter</i> , 2013, 9, 9755.	1.2	33
34	A force balance model for the motion, impact, and bounce of bubbles. <i>Physics of Fluids</i> , 2014, 26, .	1.6	33
35	Dynamic Interaction between a Millimeter-Sized Bubble and Surface Microbubbles in Water. <i>Langmuir</i> , 2018, 34, 11667-11675.	1.6	32
36	Molecular Destabilization Mechanism of Asphaltene Model Compound C5Pe Interfacial Film by EO-PO Copolymer: Experiments and MD Simulation. <i>Journal of Physical Chemistry C</i> , 2019, 123, 10501-10508.	1.5	25

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37	Modelling bubble rise and interaction with a glass surface. <i>Applied Mathematical Modelling</i> , 2014, 38, 4249-4261.	2.2	24
38	Prediction of the shape and pressure drop of Taylor bubbles in circular tubes. <i>Microfluidics and Nanofluidics</i> , 2015, 19, 1221-1233.	1.0	23
39	Coalescence or Bounce? How Surfactant Adsorption in Milliseconds Affects Bubble Collision. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5662-5666.	2.1	23
40	Changing the Interface Between an Asphaltene Model Compound and Water by Addition of an EO-PO Demulsifier through Adsorption Competition or Adsorption Replacement. <i>Energy & Fuels</i> , 2019, 33, 5035-5042.	2.5	23
41	Dynamic interactions between deformable drops in the Hele-Shaw geometry. <i>Soft Matter</i> , 2010, 6, 1809.	1.2	21
42	Probing Boundary Conditions at Hydrophobic Solid-Water Interfaces by Dynamic Film Drainage Measurement. <i>Langmuir</i> , 2018, 34, 12025-12035.	1.6	21
43	Enhancing oil-solid and oil-water separation in heavy oil recovery by responsive surfactants. <i>AIChE Journal</i> , 2021, 67, .	1.8	21
44	Liquid-solid triboelectric nanogenerators for a wide operation window based on slippery lubricant-infused surfaces (SLIPS). <i>Chemical Engineering Journal</i> , 2022, 439, 135688.	6.6	19
45	Role of surfactants in spontaneous displacement of high viscosity oil droplets from solid surfaces in aqueous solutions. <i>Journal of Colloid and Interface Science</i> , 2020, 579, 898-908.	5.0	18
46	Interaction Between the Cyclopentane Hydrate Particle and Water Droplet in Hydrocarbon Oil. <i>Langmuir</i> , 2020, 36, 2063-2070.	1.6	18
47	Curvature effects on liquid-solid contact electrification. <i>Nano Energy</i> , 2021, 89, 106456.	8.2	18
48	The boundary condition at the air-liquid interface and its effect on film drainage between colliding bubbles. <i>Current Opinion in Colloid and Interface Science</i> , 2020, 50, 101374.	3.4	17
49	Unraveling Interaction Mechanisms between Molybdenite and a Dodecane Oil Droplet Using Atomic Force Microscopy. <i>Langmuir</i> , 2019, 35, 6024-6031.	1.6	16
50	Modelling drop-drop interactions in an atomic force microscope. <i>ANZIAM Journal</i> , 0, 46, 805.	0.0	16
51	Anomalous Pull-Off Forces between Surfactant-Free Emulsion Drops in Different Aqueous Electrolytes. <i>Langmuir</i> , 2012, 28, 4259-4266.	1.6	15
52	Oil-water core-annular flow in vertical pipes: A CFD study. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 980-987.	0.9	11
53	Single-Molecule MoS ₂ -Polymer Interaction and Efficient Aqueous Exfoliation of MoS ₂ into Single Layer. <i>Journal of Physical Chemistry C</i> , 2018, 122, 8262-8269.	1.5	11
54	Bubbles with tunable mobility of surfaces in ethanol-NaCl aqueous solutions. <i>Journal of Colloid and Interface Science</i> , 2019, 556, 345-351.	5.0	11

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55	Interfacial properties pertinent to W/O and O/W emulsion systems prepared using polyaromatic compounds. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 575, 283-291.	2.3	11
56	Spontaneous Displacement of High Viscosity Micrometer Size Oil Droplets from a Curved Solid in Aqueous Solutions. <i>Langmuir</i> , 2019, 35, 615-627.	1.6	11
57	Control of nanostructures through pH-dependent self-assembly of nanoplatelets. <i>Journal of Colloid and Interface Science</i> , 2021, 582, 439-445.	5.0	11
58	CO ₂ -responsive surfactants for greener extraction of heavy oil: A bench-scale demonstration. <i>Journal of Cleaner Production</i> , 2022, 338, 130554.	4.6	11
59	Effect of Sodium Citrate and Calcium Ions on the Spontaneous Displacement of Heavy Oil from Quartz Surfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 20991-20997.	1.5	10
60	Selective depression of millerite (Fe ₂ NiS) by polysaccharides in alkaline solutions in Cu-Ni sulphides flotation separation. <i>Minerals Engineering</i> , 2021, 172, 107139.	1.8	9
61	Enhancement of selective fine particle flotation by microbubbles generated through hydrodynamic cavitation. <i>Powder Technology</i> , 2022, 405, 117502.	2.1	9
62	Three Dimensional Effects in Taylor Flow in Circular Microchannels. <i>Houille Blanche</i> , 2013, 99, 60-67.	0.3	8
63	Controlling the Interaction Forces between an Air Bubble and Oil with Divalent Cations and Sodium Citrate. <i>Journal of Physical Chemistry C</i> , 2020, 124, 17622-17631.	1.5	8
64	Role of Surfactants Based on Fatty Acids in the Wetting Behavior of Solid-Oil-Aqueous Solution Systems. <i>Langmuir</i> , 2021, 37, 5682-5690.	1.6	8
65	Probing Specific Adsorption of Electrolytes at Kaolinite-Aqueous Interfaces by Atomic Force Microscopy. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2406-2412.	2.1	7
66	Modulation of Surface Charge by Mediating Surface Chemical Structures in Nonpolar Solvents with Nonionic Surfactant Used as Charge Additives. <i>Journal of Physical Chemistry C</i> , 2021, 125, 19525-19536.	1.5	7
67	Effect of solid wettability on three-phase hydrodynamic cavitation. <i>Minerals Engineering</i> , 2022, 180, 107455.	1.8	7
68	Effect of sodium citrate on asphaltene film at the oil-water interface. <i>Journal of Colloid and Interface Science</i> , 2022, 625, 24-32.	5.0	7
69	Interpreting atomic force microscopy measurements of hydrodynamic and surface forces with nonlinear parametric estimation. <i>Review of Scientific Instruments</i> , 2012, 83, 103702.	0.6	6
70	Water Film Drainage between a Very Viscous Oil Drop and a Mica Surface. <i>Physical Review Letters</i> , 2021, 127, 124503.	2.9	6
71	Effect of Velocity, Solid Wettability, and Temperature on Drainage Dynamics of C5PeC11-in-Toluene Liquid Films between Silica and Water Droplet. <i>Energy & Fuels</i> , 2020, 34, 6834-6843.	2.5	5
72	Spreading and receding of oil droplets on silanized glass surfaces in water: Role of three-phase contact line flow direction in spontaneous displacement. <i>Journal of Colloid and Interface Science</i> , 2021, 587, 672-682.	5.0	4

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73	Effect of NaCl and CO ₂ on the inception control of hydrodynamic cavitation by gas solubility change. <i>Chemical Engineering Science</i> , 2021, 246, 116997.	1.9	4
74	Effect of Sodium Citrate on the Aggregation of Bitumen Droplets. <i>Energy & Fuels</i> , 2022, 36, 3563-3569.	2.5	3
75	Fundamentals of secondary process aids in oil sands extraction. <i>Canadian Journal of Chemical Engineering</i> , 2022, 100, 2682-2706.	0.9	2
76	Inward Flow of Intervening Liquid Films Driven by the Marangoni Effect during Bubble-Solid Collisions in Ethyl Alcohol-NaCl Aqueous Solutions. <i>Langmuir</i> , 2021, 37, 4121-4128.	1.6	1
77	Modelo e Simulação Numérica de Interações Envolvendo Bolhas e Gotas. <i>TeMa</i> , 2012, , 121-132.	0.1	1
78	Effect of Viscosity on the Thin-Film Drainage between Bitumen and a Hydrophobic Silica Wafer. <i>Energy & Fuels</i> , 2022, 36, 2600-2608.	2.5	1
79	Effect of Cu(II) ions on millerite (Ni ₂ S) flotation and surface properties in alkaline solutions. <i>Minerals Engineering</i> , 2022, 180, 107443.	1.8	1
80	Hydrodynamic collisions involving bubbles and mineral particles. <i>Canadian Journal of Chemical Engineering</i> , 2022, 100, 3270-3287.	0.9	0