Assocâ€Prof Craig Priest

List of Publications by Year
in descending order

93 papers	2,665 citations	172457 29 h-index	197818 49 g-index
93 all docs	93 docs citations	93 times ranked	3918 citing authors

#	Article	IF	Citations
1	Controlled electrocoalescence in microfluidics: Targeting a single lamella. Applied Physics Letters, 2006, 89, 134101.	3.3	213
2	Generation of monodisperse gel emulsions in a microfluidic device. Applied Physics Letters, 2006, 88, 024106.	3.3	139
3	Wettability of Photoresponsive Titanium Dioxide Surfaces. Langmuir, 2003, 19, 3272-3275.	3.5	138
4	Contact Line Pinning on Microstructured Surfaces for Liquids in the Wenzel State. Langmuir, 2010, 26, 860-865.	3.5	127
5	Dynamics of Capillary-Driven Flow in Open Microchannels. Journal of Physical Chemistry C, 2011, 115, 18761-18769.	3.1	120
6	Microfluidic polymer multilayer adsorption on liquid crystal droplets for microcapsule synthesis. Lab on A Chip, 2008, 8, 2182.	6.0	107
7	Static and Dynamic Electrowetting of an Ionic Liquid in a Solid/Liquid/Liquid System. Journal of the American Chemical Society, 2010, 132, 8301-8308.	13.7	84
8	Intestine-on-a-Chip Microfluidic Model for Efficient in Vitro Screening of Oral Chemotherapeutic Uptake. ACS Biomaterials Science and Engineering, 2017, 3, 951-959.	5.2	78
9	Microfluidic solvent extraction of rare earth elements from a mixed oxide concentrate leach solution using CyanexÂ® 572. Chemical Engineering Science, 2016, 148, 212-218.	3.8	77
10	Asymmetric Wetting Hysteresis on Hydrophobic Microstructured Surfaces. Langmuir, 2009, 25, 5655-5660.	3.5	69
11	Evaluating the antifouling effects of silver nanoparticles regenerated by TiO2 on forward osmosis membrane. Journal of Membrane Science, 2014, 454, 264-271.	8.2	68
12	Microfluidic extraction of copper from particle-laden solutions. International Journal of Mineral Processing, 2011, 98, 168-173.	2.6	55
13	Asymmetric Wetting Hysteresis on Chemical Defects. Physical Review Letters, 2007, 99, 026103.	7.8	54
14	Microplasma patterning of bonded microchannels using high-precision â€œinjectedâ€•electrodes. Lab on A Chip, 2011, 11, 541-544.	6.0	50
15	Pinning and wicking in regular pillar arrays. Soft Matter, 2014, 10, 5739-5748.	2.7	50
16	Microengineered Bioartificial Liver Chip for Drug Toxicity Screening. Advanced Functional Materials, 2018, 28, 1801825.	14.9	50
17	Electrowetting of Aqueous Solutions of Ionic Liquid in Solidâ^'Liquidâ^'Liquid Systems. Journal of Physical Chemistry C, 2010, 114, 8383-8388.	3.1	48
18	Microfluidic Solvent Extraction of Metal Ions and Complexes from Leach Solutions Containing Nanoparticles. Chemical Engineering and Technology, 2012, 35, 1312-1319.	1.5	48

#	Article	IF	Citations
19	Formation and stability of nanoparticle-stabilised oil-in-water emulsions in a microfluidic chip. Journal of Colloid and Interface Science, 2011, 363, 301-306.	9.4	47
20	Femtoliter Droplet Handling in Nanofluidic Channels: A Laplace Nanovalve. Analytical Chemistry, 2012, 84, 10812-10816.	6.5	46
21	Impedance nanopore biosensor: influence of pore dimensions on biosensing performance. Analyst, The, 2014, 139, 1134.	3.5	41
22	Influence of the Work of Adhesion on the Dynamic Wetting of Chemically Heterogeneous Surfaces. Langmuir, 2008, 24, 13007-13012.	3.5	40
23	Intracellular delivery of mRNA to human primary T cells with microfluidic vortex shedding. Scientific Reports, 2019, 9, 3214.	3.3	40
24	Influence of Water on the Interfacial Nanostructure and Wetting of [Rmim][NTf2] Ionic Liquids at Mica Surfaces. Langmuir, 2016, 32, 8818-8825.	3.5	39
25	Surface patterning of bonded microfluidic channels. Biomicrofluidics, 2010, 4, 32206.	2.4	38
26	Manipulation of gel emulsions by variable microchannel geometry. Lab on A Chip, 2009, 9, 325-330.	6.0	36
27	Capillary rise dynamics of aqueous glycerol solutions in glass capillaries: A critical examination of the Washburn equation. Journal of Colloid and Interface Science, 2013, 411, 257-264.	9.4	36
28	Inferring wettability of heterogeneous surfaces by ToF-SIMS. Journal of Colloid and Interface Science, 2008, 320, 563-568.	9.4	32
29	Impact of Nanoscale Surface Heterogeneity on Precursor Film Growth and Macroscopic Spreading of [Rmim][NTf₂] Ionic Liquids on Mica. Langmuir, 2013, 29, 11344-11353.	3.5	31
30	Dynamics of capillary-driven liquidâ€“liquid displacement in open microchannels. Physical Chemistry Chemical Physics, 2014, 16, 24473-24478.	2.8	27
31	Microfluidic process intensification for synthesis and formulation in the pharmaceutical industry. Chemical Engineering and Processing: Process Intensification, 2019, 142, 107559.	3.6	27
32	In situ formation, manipulation, and imaging of droplet-encapsulated fibrin networks. Lab on A Chip, 2009, 9, 1933.	6.0	25
33	Fabrication and Operation of a Microcavity Plasma Array Device for Microscale Surface Modification. Plasma Processes and Polymers, 2012, 9, 638-646.	3.0	23
34	Numbering-up Yâ€“Y microfluidic chips for higher-throughput solvent extraction of platinum(IV) chloride. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	23
35	The Timing of Application and Inclusion of a Surfactant Are Important for Absorption and Translocation of Foliar Phosphoric Acid by Wheat Leaves. Frontiers in Plant Science, 2019, 10, 1532.	3.6	23
36	Loading of 5-fluorouracil onto Halloysite nanotubes for targeted drug delivery using a subcritical gas antisolvent process (GAS). Journal of Supercritical Fluids, 2020, 159, 104756.	3.2	23

#	Article	IF	Citations
37	The Influence of Nanopore Dimensions on the Electrochemical Properties of Nanopore Arrays Studied by Impedance Spectroscopy. Sensors, 2014, 14, 21316-21328.	3.8	22
38	Uptake of phosphorus from surfactant solutions by wheat leaves: spreading kinetics, wetted area, and drying time. Soft Matter, 2016, 12, 209-218.	2.7	22
39	The Use of Microfluidics in Cytotoxicity and Nanotoxicity Experiments. Micromachines, 2017, 8, 124.	2.9	22
40	Interfacial Phenomena and Fluid Control in Micro/Nanofluidics. Analytical Sciences, 2016, 32, 11-21.	1.6	21
41	Microplasma arrays: a new approach for maskless and localized patterning of materials surfaces. RSC Advances, 2012, 2, 12007.	3.6	20
42	Microfluidic solvent extraction, stripping, and phase disengagement for high-value platinum chloride solutions. Chemical Engineering Science, 2015, 138, 827-833.	3.8	20
43	Crossed flow microfluidics for high throughput screening of bioactive chemicalâ€“cell interactions. Lab on A Chip, 2017, 17, 501-510.	6.0	20
44	Microfluidic Cell Microarray Platform for High Throughput Analysis of Particleâ€“Cell Interactions. Analytical Chemistry, 2018, 90, 4338-4347.	6.5	19
45	Photometric Sensing of Active Chlorine, Total Chlorine, and pH on a Microfluidic Chip for Online Swimming Pool Monitoring. Sensors, 2020, 20, 3099.	3.8	18
46	Directed crystallisation of zinc oxide on patterned surfaces. Journal of Colloid and Interface Science, 2006, 303, 333-336.	9.4	17
47	Capillary Filling of Nanoscale Channels and Surface Structure. Israel Journal of Chemistry, 2014, 54, 1519-1532.	2.3	17
48	Pillar Cuvettes: Capillary-Filled, Microliter Quartz Cuvettes with Microscale Path Lengths for Optical Spectroscopy. Analytical Chemistry, 2015, 87, 4757-4764.	6.5	16
49	Discrete microfluidics: Reorganizing droplet arrays at a bend. Applied Physics Letters, 2009, 95, .	3.3	15
50	Characterization of impedance biosensing performance of single and nanopore arrays of anodic porous alumina fabricated by focused ion beam (FIB) milling. Electrochimica Acta, 2014, 139, 225-231.	5.2	15
51	Effect of mould roughness on injection moulded poly (methyl methacrylate) surfaces: Roughness and wettability. Journal of Manufacturing Processes, 2019, 48, 313-319.	5.9	15
52	A quantitative experimental study of wetting hysteresis on discrete and continuous chemical heterogeneities. Colloid and Polymer Science, 2013, 291, 271-277.	2.1	14
53	Microfluidic Solvent Extraction of Metal Ions from Industrial Grade Leach Solutions: Extraction Performance and Channel Aging. Journal of Flow Chemistry, 2013, 3, 76-80.	1.9	14
54	Novel Approach to the Formation of Smooth Gold Surfaces. Langmuir, 2002, 18, 2438-2440.	3.5	12

#	Article	IF	Citations
55	A Multiâ€Stream Microchip for Process Intensification of Liquidâ€Liquid Extraction. Chemical Engineering and Technology, 2017, 40, 1184-1189.	1.5	11
56	Optimization of binding B-lymphocytes in a microfluidic channel: surface modification, stasis time and shear response. Biofabrication, 2018, 10, 014101.	7.1	11
57	Patterning of wettability for controlling capillary-driven flow in closed channels. Journal of Colloid and Interface Science, 2013, 402, 259-266.	9.4	10
58	Electrowetting of Ionic Liquids on Teflon AF1600 in Ambient Hexadecane. Journal of Adhesion Science and Technology, 2012, 26, 2047-2067.	2.6	9
59	Structure-induced spreading of liquid in micropillar arrays. Microsystem Technologies, 2012, 18, 167-173.	2.0	9
60	Surface protein gradients generated in sealed microchannels using spatially varying helium microplasma. Biomicrofluidics, 2015, 9, 014124.	2.4	8
61	Impedance Spectroscopy Study of Nanopore Arrays for Biosensing Applications. Science of Advanced Materials, 2014, 6, 1375-1381.	0.7	8
62	Influence of Sample Volume and Solvent Evaporation on Absorbance Spectroscopy in a Microfluidic â€œPillar-Cuvetteâ€• Analytical Sciences, 2016, 32, 103-108.	1.6	7
63	Electrochemical Proteus vulgaris whole cell urea sensor in synthetic urine. Current Research in Biotechnology, 2019, 1, 22-27.	3.7	7
64	Evaporation-Driven Flow in Micropillar Arrays: Transport Dynamics and Chemical Analysis under Varied Sample and Ambient Conditions. Analytical Chemistry, 2020, 92, 16043-16050.	6.5	7
65	An Open Microfluidic Chip for Continuous Sampling of Solute from a Turbulent Particle Suspension. Angewandte Chemie - International Edition, 2021, 60, 2654-2657.	13.8	7
66	Microfluidic Platform for High-Throughput Screening of Leach Chemistry. Analytical Chemistry, 2018, 90, 8517-8522.	6.5	6
67	Microfluidic Screening to Study Acid Mine Drainage. Environmental Science & Technology, 2020, 54, 14000-14006.	10.0	6
68	Precipitation of Drug Particles Using a Gas Antisolvent Process on a High-Pressure Microfluidic Platform. Industrial & Engineering Chemistry Research, 2020, 59, 11905-11913.	3.7	6
69	A Multiplexed Microfluidic Platform toward Interrogating Endocrine Function: Simultaneous Sensing of Extracellular Ca²⁺ and Hormone. ACS Sensors, 2020, 5, 490-499.	7.8	6
70	Plasma Deposited Polyoxazoline Thin Films for the Biofunctionalization of Electrochemical Sensors. Advanced Materials Technologies, 2021, 6, 2001292.	5.8	6
71	Low-temperature bonding process for the fabrication of hybrid glassâ€“membrane organ-on-a-chip devices. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2016, 15, 044502.	0.9	5
72	Leaching gold by reactive flow of ammonium thiosulfate solution in high aspect ratio channels: Rate, passivation, and profile. Hydrometallurgy, 2017, 169, 207-212.	4.3	5

#	Article	IF	Citations
73	On-chip absorption spectroscopy enabled by graded index fiber tips. Biomedical Optics Express, 2021, 12, 181.	2.9	5
74	Microbial cell lysis and nucleic acid extraction via nanofluidic channel. RSC Advances, 2015, 5, 23886-23891.	3.6	4
75	Directed Growth of Orthorhombic Crystals in a Micropillar Array. Langmuir, 2017, 33, 1547-1551.	3.5	4
76	Investigation of Chalcopyrite Leaching Using an Ore-on-a-Chip. Analytical Chemistry, 2019, 91, 1557-1562.	6.5	4
77	Rapid Fabrication of Superhydrophobic Virtual Walls for Microfluidic Gas Extraction and Sensing. Micromachines, 2021, 12, 514.	2.9	4
78	Multiparameter toxicity screening on a chip: Effects of UV radiation and titanium dioxide nanoparticles on HaCaT cells. Biomicrofluidics, 2019, 13, 044112.	2.4	3
79	Analysis of co-flowing immiscible liquid streamsÂand their interfaces in a high-throughput solvent extraction chip. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	3
80	Pilot-scale microfluidic solvent extraction of high-value metals. Minerals Engineering, 2022, 182, 107536.	4.3	3
81	Caged-Sphere Optofluidic Sensors: Whispering Gallery Resonators in Wicking Microfluidics. Sensors, 2022, 22, 4135.	3.8	3
82	Integration of microplasma and microfluidic technologies for localised microchannel surface modification. Proceedings of SPIE, 2011, , .	0.8	2
83	Chemical and biomolecule patterning on 2D surfaces using atmospheric pressure microcavity plasma array devices. Proceedings of SPIE, 2011, , .	0.8	1
84	Low-temperature bonded glass-membrane microfluidic device for in vitro organ-on-a-chip cell culture models. Proceedings of SPIE, 2015, , .	0.8	1
85	An Open Microfluidic Chip for Continuous Sampling of Solute from a Turbulent Particle Suspension. Angewandte Chemie, 2021, 133, 2686-2689.	2.0	1
86	Polymeric Nanoneedle Arrays Mediate Stiffnessâ€Independent Intracellular Delivery (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10	14.9	1
87	Continuous monitoring of <scp>EDTA</scp> extractable iron from mineral slurries using a microfluidic chip. Canadian Journal of Chemical Engineering, 2023, 101, 944-952.	1.7	1
88	Microfluidic Solvent Extraction of Copper for Mineral Processing. , 2009, , .		0
89	Microvolume Screening of Extraction and Phase Behavior in a Liquidâ€“Liquid Microsystem. Analytical Chemistry, 2020, 92, 7831-7835.	6.5	0
90	Graded-index fiber on-chip absorption spectroscopy. , 2021, , .		0

#	Article	IF	Citations
91	Dynamic x-ray optics with microfluidics: stabilization of gas bubbles by surface ordering and freezing. Houille Blanche, 2009, 95, 129-134.	0.3	0
92	Sensing Intraâ€•and Extraâ€€Cellular Ca²⁺ in the Islet of Langerhans. Advanced Functional Materials, 2022, 32, 2106020.	14.9	0
93	The Australian National Fabrication Facility: Micro/nanotechnologies from Concept to Translation to End Users. Advanced Functional Materials, 2022, 32, .	14.9	0