Dominik P J Barz

List of Publications by Year
in descending order

44	625	623188	610482
papers	citations	14 h-index	24 g-index

47	47	47	733
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structure of the Electrical Double Layer Revisited: Electrode Capacitance in Aqueous Solutions. Langmuir, 2020, 36, 4250-4260.	1.6	75
2	Evaluation of hydrogen sorption models for AB5-type metal alloys by employing a gravimetric technique. International Journal of Hydrogen Energy, 2013, 38, 8838-8851.	3.8	64
3	A Novel Flexible Hybrid Batteryâ€“Supercapacitor Based on a Selfâ€Assembled Vanadiumâ€Graphene Hydrogel. Advanced Functional Materials, 2020, 30, 1910738.	7.8	53
4	Zeta Potential of Poly(methyl methacrylate) (PMMA) in Contact with Aqueous Electrolyteâ€“Surfactant Solutions. Langmuir, 2017, 33, 10473-10482.	1.6	48
5	Model and verification of electrokinetic flow and transport in a micro-electrophoresis device. Lab on A Chip, 2005, 5, 949.	3.1	41
6	The zeta potential of PMMA in contact with electrolytes of various conditions: Theoretical and experimental investigation. Electrophoresis, 2014, 35, 870-882.	1.3	36
7	Determination of the Zeta Potential of Porous Substrates by Droplet Deflection. I. The Influence of Ionic Strength and pH Value of an Aqueous Electrolyte in Contact with a Borosilicate Surface. Langmuir, 2009, 25, 1842-1850.	1.6	34
8	High concentration graphene nanoplatelet dispersions in water stabilized by graphene oxide. Carbon, 2021, 174, 581-593.	5.4	27
9	Optimization of an electrokinetic mixer for microfluidic applications. Biomicrofluidics, 2012, 6, 24123-2412318.	1.2	23
10	Determination of the Zeta Potential of Porous Substrates by Droplet Deflection: II. Generation of Electrokinetic Flow in a Nonpolar Liquid. Langmuir, 2010, 26, 3126-3133.	1.6	22
11	Measurements and simulations of time-dependent flow fields within an electrokinetic micromixer. Journal of Fluid Mechanics, 2011, 676, 265-293.	1.4	18
12	Streaming Potential Revisited: The Influence of Convection on the Surface Conductivity. Langmuir, 2014, 30, 10950-10961.	1.6	16
13	Printing of graphene supercapacitors with enhanced capacitances induced by a leavening agent. Journal of Energy Storage, 2020, 28, 101210.	3.9	15
14	A rechargeable zinc copper battery using a selective cation exchange membrane. Journal of Power Sources, 2020, 453, 227873.	4.0	14
15	Laminar flow and mass transport in a twiceâ€“folded microchannel. AICHE Journal, 2008, 54, 381-393.	1.8	13
16	Graphene electrode functionalization for high performance hybrid energy storage with vanadyl sulfate redox electrolytes. Journal of Power Sources, 2022, 517, 230712.	4.0	12
17	Comprehensive model of electrokinetic flow and migration in microchannels with conductivity gradients. Microfluidics and Nanofluidics, 2009, 7, 249-265.	1.0	11
18	Optimized inkjet-printed silver nanoparticle films: theoretical and experimental investigations. RSC Advances, 2018, 8, 19679-19689.	1.7	11

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19	Addition of dilute H2O2 solutions to H2â€“CO fuel gases and their influence on performance of a PEFC. Physical Chemistry Chemical Physics, 2001, 3, 330-332.	1.3	9
20	Bonding Nafion Â® with polydimethysiloxane: A versatile approach towards ion-exchange membrane microfluidic devices. Journal of Membrane Science, 2017, 537, 310-314.	4.1	8
21	Charge and Electrical Double Layer Formation in a Nonpolar Solvent Using a Nonionic Surfactant. Langmuir, 2020, 36, 5156-5164.	1.6	8
22	A dynamic model of the electroosmotic droplet switch. Physics of Fluids, 2013, 25, .	1.6	7
23	Optimised active flow control for micromixers and other fluid applications: Sensitivity- vs. adjoint-based strategies. Computers and Fluids, 2015, 106, 93-107.	1.3	7
24	Fabrication and characterization of a coplanar nickel-metal hydride microbattery equipped with a gel electrolyte. Journal of Power Sources, 2019, 414, 141-149.	4.0	7
25	Electroosmotic flow through packed beds of granular materials. Microfluidics and Nanofluidics, 2015, 19, 693-708.	1.0	6
26	Fabrication and Characterization of Thin Film Nickel Hydroxide Electrodes for Micropower Applications. ACS Applied Materials & Interfaces, 2015, 7, 12797-12808.	4.0	5
27	Direct writing of liquids by micro dispensing: Stability and shape of laminar jets with high Froude numbers. Chemical Engineering Journal, 2020, 381, 122645.	6.6	5
28	A novel rechargeable zincâ€“copper battery without a separator. Journal of Energy Storage, 2021, 42, 103109.	3.9	5
29	A sugar-template manufacturing method for microsystem ion-exchange membranes. Journal of Micromechanics and Microengineering, 2017, 27, 075011.	1.5	4
30	Electrokinetic manipulation of the von KÃ¡rmÃ¡n vortex street in the wake of a confined cylinder. I. DC electric field. Physics of Fluids, 2018, 30, 082004.	1.6	4
31	Dielectric relaxation spectroscopy of aqueous micellar electrolyte solutions: A novel application to infer Dukhin number and zeta potential of a micelle. Electrophoresis, 2019, 40, 710-719.	1.3	3
32	Electrochemical investigation and modelling of LaNi4.77Al0.23 thin-films sputtered on glass wafers. Journal of Alloys and Compounds, 2019, 772, 199-208.	2.8	3
33	Simulation of Flow and Mass Transport in a Meander Microchannel Subject to Electroosmotic Pumping. Microscale Thermophysical Engineering, 2005, 9, 305-316.	1.2	2
34	Synthesis and Performance Evaluation of Exfoliated Graphene Nanoplatelet Hydrogels As Electrodes for Supercapacitors. ECS Transactions, 2020, 97, 359-366.	0.3	2
35	Measurements and Simulations ofÂtheÂFlowÂField inÂanÂElectrically Excited MeanderÂMicromixer. , 2007, , 1-18.		2
36	An Electrokinetic Micro Mixer for Lab-on-Chip Applications: Modeling, Validation, and Optimization. , 2011, , .		1

#	Article	IF	Citations
37	3D Simulation and Experimental Validation of an Electrically-Excited Flow in a Folded Microchannel. , 2006, , 215.		0
38	A Novel Method to Determine the Zeta Potential of Porous Substrates by Measuring the Deflection of Two Coupled Droplets. , 2009, , .		0
39	Electroosmotic Flow Through Porous Materials. , 2014, , .		0
40	The Influence of Electroosmotic Flow on the Von KÃ¡rmÃ¡n Vortex Street in the Wake of a Cylinder Located in a Microchannel. , 2015, , .		0
41	The influence of a DC electric field on the von KÃ¡rmÃ¡n vortex street in the wake of a confined cylinder. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 623-624.	0.2	0
42	Fully-Coupled Modelling of Electrokinetic Flow and Migration of Electrolytes in Microfluidic Devices. , 2007, , .		0
43	Use of Electrokinetic Phenomena in Microfluidic Devices. , 2008, , .		0
44	Generation of Electrokinetic Flow in a Doped Non-Polar Liquid. , 2010, , .		0