

Dominik P J Barz

List of Publications by Year in descending order

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Version: 2024-02-01

44
papers

625
citations

623188

14
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610482

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47
all docs

47
docs citations

47
times ranked

733
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphene electrode functionalization for high performance hybrid energy storage with vanadyl sulfate redox electrolytes. <i>Journal of Power Sources</i> , 2022, 517, 230712.	4.0	12
2	High concentration graphene nanoplatelet dispersions in water stabilized by graphene oxide. <i>Carbon</i> , 2021, 174, 581-593.	5.4	27
3	A novel rechargeable zinc-copper battery without a separator. <i>Journal of Energy Storage</i> , 2021, 42, 103109.	3.9	5
4	Direct writing of liquids by micro dispensing: Stability and shape of laminar jets with high Froude numbers. <i>Chemical Engineering Journal</i> , 2020, 381, 122645.	6.6	5
5	Synthesis and Performance Evaluation of Exfoliated Graphene Nanoplatelet Hydrogels As Electrodes for Supercapacitors. <i>ECS Transactions</i> , 2020, 97, 359-366.	0.3	2
6	A Novel Flexible Hybrid Battery-Supercapacitor Based on a Self-Assembled Vanadium-Graphene Hydrogel. <i>Advanced Functional Materials</i> , 2020, 30, 1910738.	7.8	53
7	A rechargeable zinc copper battery using a selective cation exchange membrane. <i>Journal of Power Sources</i> , 2020, 453, 227873.	4.0	14
8	Printing of graphene supercapacitors with enhanced capacitances induced by a leavening agent. <i>Journal of Energy Storage</i> , 2020, 28, 101210.	3.9	15
9	Charge and Electrical Double Layer Formation in a Nonpolar Solvent Using a Nonionic Surfactant. <i>Langmuir</i> , 2020, 36, 5156-5164.	1.6	8
10	Structure of the Electrical Double Layer Revisited: Electrode Capacitance in Aqueous Solutions. <i>Langmuir</i> , 2020, 36, 4250-4260.	1.6	75
11	Dielectric relaxation spectroscopy of aqueous micellar electrolyte solutions: A novel application to infer Dukhin number and zeta potential of a micelle. <i>Electrophoresis</i> , 2019, 40, 710-719.	1.3	3
12	Electrochemical investigation and modelling of LaNi _{4.77} Al _{0.23} thin-films sputtered on glass wafers. <i>Journal of Alloys and Compounds</i> , 2019, 772, 199-208.	2.8	3
13	Fabrication and characterization of a coplanar nickel-metal hydride microbattery equipped with a gel electrolyte. <i>Journal of Power Sources</i> , 2019, 414, 141-149.	4.0	7
14	Optimized inkjet-printed silver nanoparticle films: theoretical and experimental investigations. <i>RSC Advances</i> , 2018, 8, 19679-19689.	1.7	11
15	Electrokinetic manipulation of the von Kármán vortex street in the wake of a confined cylinder. I. DC electric field. <i>Physics of Fluids</i> , 2018, 30, 082004.	1.6	4
16	A sugar-template manufacturing method for microsystem ion-exchange membranes. <i>Journal of Micromechanics and Microengineering</i> , 2017, 27, 075011.	1.5	4
17	Bonding Nafion® with polydimethylsiloxane: A versatile approach towards ion-exchange membrane microfluidic devices. <i>Journal of Membrane Science</i> , 2017, 537, 310-314.	4.1	8
18	Zeta Potential of Poly(methyl methacrylate) (PMMA) in Contact with Aqueous Electrolyte-Surfactant Solutions. <i>Langmuir</i> , 2017, 33, 10473-10482.	1.6	48

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19	The influence of a DC electric field on the von Kármán vortex street in the wake of a confined cylinder. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 623-624.	0.2	0
20	Fabrication and Characterization of Thin Film Nickel Hydroxide Electrodes for Micropower Applications. ACS Applied Materials & Interfaces, 2015, 7, 12797-12808.	4.0	5
21	The Influence of Electroosmotic Flow on the Von Kármán Vortex Street in the Wake of a Cylinder Located in a Microchannel. , 2015, , .		0
22	Electroosmotic flow through packed beds of granular materials. Microfluidics and Nanofluidics, 2015, 19, 693-708.	1.0	6
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	Electroosmotic Flow Through Porous Materials. , 2014, , .		0
25	The zeta potential of PMMA in contact with electrolytes of various conditions: Theoretical and experimental investigation. Electrophoresis, 2014, 35, 870-882.	1.3	36
26	Streaming Potential Revisited: The Influence of Convection on the Surface Conductivity. Langmuir, 2014, 30, 10950-10961.	1.6	16
27	A dynamic model of the electroosmotic droplet switch. Physics of Fluids, 2013, 25, .	1.6	7
28	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
29	Optimization of an electrokinetic mixer for microfluidic applications. Biomicrofluidics, 2012, 6, 24123-2412318.	1.2	23
30	An Electrokinetic Micro Mixer for Lab-on-Chip Applications: Modeling, Validation, and Optimization. , 2011, , .		1
31	Measurements and simulations of time-dependent flow fields within an electrokinetic micromixer. Journal of Fluid Mechanics, 2011, 676, 265-293.	1.4	18
32	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
33	Generation of Electrokinetic Flow in a Doped Non-Polar Liquid. , 2010, , .		0
34	A Novel Method to Determine the Zeta Potential of Porous Substrates by Measuring the Deflection of Two Coupled Droplets. , 2009, , .		0
35	Comprehensive model of electrokinetic flow and migration in microchannels with conductivity gradients. Microfluidics and Nanofluidics, 2009, 7, 249-265.	1.0	11
36	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

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37	Laminar flow and mass transport in a twice-folded microchannel. <i>AIChE Journal</i> , 2008, 54, 381-393.	1.8	13
38	Use of Electrokinetic Phenomena in Microfluidic Devices. , 2008, , .		0
39	Measurements and Simulations of the Flow Field in an Electrically Excited Meander Micromixer. , 2007, , 1-18.		2
40	Fully-Coupled Modelling of Electrokinetic Flow and Migration of Electrolytes in Microfluidic Devices. , 2007, , .		0
41	3D Simulation and Experimental Validation of an Electrically-Excited Flow in a Folded Microchannel. , 2006, , 215.		0
42	Simulation of Flow and Mass Transport in a Meander Microchannel Subject to Electroosmotic Pumping. <i>Microscale Thermophysical Engineering</i> , 2005, 9, 305-316.	1.2	2
43	Model and verification of electrokinetic flow and transport in a micro-electrophoresis device. <i>Lab on A Chip</i> , 2005, 5, 949.	3.1	41
44	Addition of dilute H ₂ O ₂ solutions to H ₂ -CO fuel gases and their influence on performance of a PEFC. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 330-332.	1.3	9