Moran Bercovici

List of Publications by Year
in descending order

58	1,341	393982	360668
papers	citations	19 h-index	35 g-index

59	59	59	1437
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reconfigurable microfluidics. Nature Reviews Chemistry, 2022, 6, 70-80.	13.8	38
2	Biointegrated Fluidic Milling. Advanced Materials Technologies, 2021, 6, 2000843.	3.0	0
3	Fluidic shaping of optical components. Flow, 2021, 1, .	1.0	6
4	Microscale Hydrodynamic Cloaking and Shielding via Electro-Osmosis. Physical Review Letters, 2021, 126, 184502.	2.9	25
5	Fabrication of freeform optical components by fluidic shaping. Optica, 2021, 8, 1501.	4.8	11
6	Shaping liquid films by dielectrophoresis. Flow, 2021, 1, .	1.0	3
7	Electrokinetic Scanning Probe. Small, 2020, 16, 1904268.	5.2	3
8	Microfluidic device for coupling isotachophoretic sample focusing with nanopore single-molecule sensing. Nanoscale, 2020, 12, 17805-17811.	2.8	19
9	Microscopic scan-free surface profiling over extended axial ranges by point-spread-function engineering. Science Advances, 2020, 6, .	4.7	9
10	Electrokinetic Scanning Probes: Electrokinetic Scanning Probe (Small 5/2020). Small, 2020, 16, 2070028.	5.2	0
11	Nonuniform Electro-osmotic Flow Drives Fluid-Structure Instability. Physical Review Letters, 2020, 124, 024501.	2.9	15
12	Tunable Bidirectional Electroosmotic Flow for Diffusionâ€Based Separations. Angewandte Chemie - International Edition, 2020, 59, 12894-12899.	7.2	4
13	Intermediate States of Wetting on Hierarchical Superhydrophobic Surfaces. Langmuir, 2020, 36, 5517-5523.	1.6	16
14	Tunable Bidirectional Electroosmotic Flow for Diffusionâ€Based Separations. Angewandte Chemie, 2020, 132, 12994-12999.	1.6	3
15	Biointegrated Subtractive Microfabrication by Hydrodynamic Flow Confinement. , 2020, , .		0
16	Electro-osmotic flow enhancement over superhydrophobic surfaces. Physical Review Fluids, 2020, 5, .	1.0	13
17	Interfacial instability of thin films in soft microfluidic configurations actuated by electro-osmotic flow. Physical Review Fluids, 2020, 5, .	1.0	5
18	Spatially Resolved Genetic Analysis of Tissue Sections Enabled by Microscale Flow Confinement Retrieval and Isotachophoretic Purification. Angewandte Chemie, 2019, 131, 15403-15406.	1.6	5

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19	Spatially Resolved Genetic Analysis of Tissue Sections Enabled by Microscale Flow Confinement Retrieval and Isotachophoretic Purification. Angewandte Chemie - International Edition, 2019, 58, 15259-15262.	7.2	11
20	Dynamic control of capillary flow in porous media by electroosmotic pumping. Lab on A Chip, 2019, 19, 328-334.	3.1	16
21	Electroosmotic Flow Dipole: Experimental Observation and Flow Field Patterning. Physical Review Letters, 2019, 122, 224502.	2.9	19
22	Dynamic microscale flow patterning using electrical modulation of zeta potential. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10258-10263.	3.3	24
23	Elastohydrodynamics of a pre-stretched finite elastic sheet lubricated by a thin viscous film with application to microfluidic soft actuators. Journal of Fluid Mechanics, 2019, 862, 732-752.	1.4	15
24	Dipolar thermocapillary motor and swimmer. Physical Review Fluids, 2019, 4, .	1.0	5
25	Monitoring Dissociation Kinetics during Electrophoretic Focusing to Enable Highâ€Specificity Nucleic Acid Detection. Angewandte Chemie, 2018, 130, 3401-3406.	1.6	4
26	Amplification-free detection of DNA in a paper-based microfluidic device using electroosmotically balanced isotachophoresis. Lab on A Chip, 2018, 18, 861-868.	3.1	40
27	Monitoring Dissociation Kinetics during Electrophoretic Focusing to Enable Highâ€Specificity Nucleic Acid Detection. Angewandte Chemie - International Edition, 2018, 57, 3343-3348.	7.2	9
28	Extraction of electrokinetically separated analytes with on-demand encapsulation. Lab on A Chip, 2018, 18, 3588-3597.	3.1	2
29	Nanoliter Cell Culture Array with Tunable Chemical Gradients. Analytical Chemistry, 2018, 90, 7480-7488.	3.2	21
30	Real-Time Monitoring of Fluorescence in Situ Hybridization Kinetics. Analytical Chemistry, 2018, 90, 11470-11477.	3.2	15
31	Toward microscale flow control using non-uniform electro-osmotic flow. , 2018, , .		0
32	Elastic deformations driven by non-uniform lubrication flows. Journal of Fluid Mechanics, 2017, 812, 841-865.	1.4	17
33	Isotachophoresis-Based Surface Immunoassay. Analytical Chemistry, 2017, 89, 7373-7381.	3.2	30
34	Focusing analytes from 50â€‰Î¼L into 500 pL: On-chip focusing from large sample volumes using isotachophoresis. Scientific Reports, 2017, 7, 10467.	1.6	17
35	On Chip Protein Pre-Concentration for Enhancing the Sensitivity of Porous Silicon Biosensors. ACS Sensors, 2017, 2, 1767-1773.	4.0	37
36	Rapid phenotypic antimicrobial susceptibility testing using nanoliter arrays. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5787-E5795.	3.3	126

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37	Viscous-elastic dynamics of power-law fluids within an elastic cylinder. Physical Review Fluids, 2017, 2, .	1.0	18
38	1,000-fold Sensitivity Enhancement of Porous Si-based Optical Biosensors for Nucleic Acid and Proteins Detection. , 2017, , .		0
39	Flow of power-law liquids in a Hele-Shaw cell driven by non-uniform electro-osmotic slip in the case of strong depletion. Journal of Fluid Mechanics, 2016, 807, 235-257.	1.4	5
40	Optical Biosensors: Oxidized Porous Silicon Nanostructures Enabling Electrokinetic Transport for Enhanced DNA Detection (Adv. Funct. Mater. 43/2015). Advanced Functional Materials, 2015, 25, 6824-6824.	7.8	1
41	Flow patterning in Hele-Shaw configurations using non-uniform electro-osmotic slip. Physics of Fluids, 2015, 27, 102001.	1.6	21
42	Diffusion dependent focusing regimes in peak mode counterflow isotachophoresis. Physics of Fluids, 2015, 27, 072003.	1.6	8
43	Oxidized Porous Silicon Nanostructures Enabling Electrokinetic Transport for Enhanced DNA Detection. Advanced Functional Materials, 2015, 25, 6725-6732.	7.8	58
44	Focused upon Hybridization: Rapid and High Sensitivity Detection of DNA Using Isotachophoresis and Peptide Nucleic Acid Probes. Analytical Chemistry, 2015, 87, 9459-9466.	3.2	16
45	Current Monitoring in a Microchannel with Repeated Constrictions for Accurate Detection of Sample Location in Isotachophoresis. Analytical Chemistry, 2015, 87, 388-393.	3.2	8
46	Sample distribution in peak mode isotachophoresis. Physics of Fluids, 2014, 26, .	1.6	16
47	1000-fold sample focusing on paper-based microfluidic devices. Lab on A Chip, 2014, 14, 4465-4474.	3.1	89
48	Acceleration of Surface-Based Hybridization Reactions Using Isotachophoretic Focusing. Analytical Chemistry, 2014, 86, 3028-3036.	3.2	78
49	Simulation Tool Coupling Nonlinear Electrophoresis and Reaction Kinetics for Design and Optimization of Biosensors. Analytical Chemistry, 2014, 86, 7835-7842.	3.2	12
50	Microfluidic Assay for Continuous Bacteria Detection Using Antimicrobial Peptides and Isotachophoresis. Analytical Chemistry, 2014, 86, 10106-10113.	3.2	40
51	Rapid hybridization of nucleic acids using isotachophoresis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11127-11132.	3.3	89
52	Robust and highâ€resolution simulations of nonlinear electrokinetic processes in variable crossâ€section channels. Electrophoresis, 2012, 33, 3036-3051.	1.3	27
53	Highâ€sensitivity detection using isotachophoresis with variable crossâ€section geometry. Electrophoresis, 2011, 32, 563-572.	1.3	25
54	Clinical Validation of Integrated Nucleic Acid and Protein Detection on an Electrochemical Biosensor Array for Urinary Tract Infection Diagnosis. PLoS ONE, 2011, 6, e26846.	1.1	55

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55	Ionic strength effects on electrophoretic focusing and separations. Electrophoresis, 2010, 31, 910-919.	1.3	61
56	Compact adaptive-grid scheme for high numerical resolution simulations of isotachophoresis. Journal of Chromatography A, 2010, 1217, 588-599.	1.8	25
57	Open source simulation tool for electrophoretic stacking, focusing, and separation. Journal of Chromatography A, 2009, 1216, 1008-1018.	1.8	106
58	Indirect Fluorescence Detection of Non Fluorescent Analytes Using Isotachophoretic Mobility Markers. , 2008, , .		0