Robbyn K Anand

List of Publications by Year
in descending order

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39 papers	1,695 citations	331670 21 h-index	289244 40 g-index
44 all docs	44 docs citations	44 times ranked	1542 citing authors

#	Article	IF	Citations
1	Out-of-plane faradaic ion concentration polarization: stable focusing of charged analytes at a three-dimensional porous electrode. Lab on A Chip, 2022, 22, 573-583.	6.0	8
2	Recent advances in microscale extraction driven by ion concentration polarization. TrAC - Trends in Analytical Chemistry, 2022, 148, 116537.	11.4	12
3	Computational framework for resolving boundary layers in electrochemical systems using weak imposition of Dirichlet boundary conditions. Finite Elements in Analysis and Design, 2022, 205, 103749.	3.2	9
4	Electropolymerization of Pyrrole-Based Ionic Liquids on Selected Wireless Bipolar Electrodes. ACS Applied Materials & Interfaces, 2022, 14, 18087-18096.	8.0	1
5	Recent Advancements in Bipolar Electrochemical Methods of Analysis. Analytical Chemistry, 2021, 93, 103-123.	6.5	69
6	Redox Cycling at an Array of Interdigitated Bipolar Electrodes for Enhanced Sensitivity in Biosensing**. ChemElectroChem, 2021, 8, 3482-3491.	3.4	10
7	A Tribute to Richardâ€...M. Crooks on the Occasion of His 65th Birthday. ChemElectroChem, 2020, 7, 1062-1066.	3.4	0
8	Interfacing electronic and genetic circuits. Nature Chemistry, 2020, 12, 14-16.	13.6	1
9	Tutorial review: Enrichment and separation of neutral and charged species by ion concentration polarization focusing. Analytica Chimica Acta, 2020, 1128, 149-173.	5.4	23
10	Alternating Current Voltammetry at a Bipolar Electrode with Smartphone Luminescence Imaging for Pointâ€ofâ€Need Sensing. ChemElectroChem, 2020, 7, 1172-1181.	3.4	22
11	Solid-Phase Microextraction Enables Isolation of BRAF V600E Circulating Tumor DNA from Human Plasma for Detection with a Molecular Beacon Loop-Mediated Isothermal Amplification Assay. Analytical Chemistry, 2020, 92, 3346-3353.	6.5	30
12	Concentration Enrichment, Separation, and Cation Exchange in Nanoliter-Scale Water-in-Oil Droplets. Journal of the American Chemical Society, 2020, 142, 3196-3204.	13.7	24
13	Tuning the Electrochemical Redox Potentials of Catechol with Boronic Acid Derivatives. Journal of Organic Chemistry, 2019, 84, 2346-2350.	3.2	6
14	Integration of marker-free selection of single cells at a wireless electrode array with parallel fluidic isolation and electrical lysis. Chemical Science, 2019, 10, 1506-1513.	7.4	23
15	Continuous micellar electrokinetic focusing of neutral species driven by ion concentration polarization. Lab on A Chip, 2019, 19, 2233-2240.	6.0	9
16	Defining Cell Cluster Size by Dielectrophoretic Capture at an Array of Wireless Electrodes of Several Distinct Lengths. Micromachines, 2019, 10, 271.	2.9	8
17	Visual Voltammogram at an Array of Closed Bipolar Electrodes in a Ladder Configuration. Journal of Analysis and Testing, 2019, 3, 150-159.	5.1	11
18	An Electrokinetic Separation Route to Source Dialysate from Excess Fluid in Blood. Analytical Chemistry, 2018, 90, 3720-3726.	6.5	16

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19	Cellular dielectrophoresis coupled with single-cell analysis. Analytical and Bioanalytical Chemistry, 2018, 410, 2499-2515.	3.7	44
20	A Selfâ€Digitization Dielectrophoretic (SDâ€DEP) Chip for Highâ€Efficiency Singleâ€Cell Capture, Onâ€Demand Compartmentalization, and Downstream Nucleic Acid Analysis. Angewandte Chemie, 2018, 130, 11548-11553.	2.0	12
21	A Selfâ€Digitization Dielectrophoretic (SDâ€DEP) Chip for Highâ€Efficiency Singleâ€Cell Capture, Onâ€Demand Compartmentalization, and Downstream Nucleic Acid Analysis. Angewandte Chemie - International Edition, 2018, 57, 11378-11383.	13.8	34
22	High-Throughput Selective Capture of Single Circulating Tumor Cells by Dielectrophoresis at a Wireless Electrode Array. Journal of the American Chemical Society, 2017, 139, 8950-8959.	13.7	115
23	Recent advancements in ion concentration polarization. Analyst, The, 2016, 141, 3496-3510.	3.5	84
24	Negative Dielectrophoretic Capture and Repulsion of Single Cells at a Bipolar Electrode: The Impact of Faradaic Ion Enrichment and Depletion. Journal of the American Chemical Society, 2015, 137, 776-783.	13.7	49
25	Improved Detection by Ensemble-Decision Aliquot Ranking of Circulating Tumor Cells with Low Numbers of a Targeted Surface Antigen. Analytical Chemistry, 2015, 87, 9389-9395.	6.5	21
26	Modulating patterns of two-phase flow with electric fields. Biomicrofluidics, 2014, 8, 044106.	2.4	5
27	New Generation of Ensemble-Decision Aliquot Ranking Based on Simplified Microfluidic Components for Large-Capacity Trapping of Circulating Tumor Cells. Analytical Chemistry, 2013, 85, 9671-9677.	6.5	22
28	Electrochemically Mediated Seawater Desalination. Angewandte Chemie - International Edition, 2013, 52, 8107-8110.	13.8	89
29	Analytical tools for characterizing heterogeneity in organelle content. Current Opinion in Chemical Biology, 2012, 16, 391-399.	6.1	21
30	Dual-channel bipolar electrode focusing: simultaneous separation and enrichment of both anions and cations. Lab on A Chip, 2012, 12, 4107.	6.0	45
31	Bipolar electrode focusing: tuning the electric field gradient. Lab on A Chip, 2011, 11, 518-527.	6.0	65
32	Bipolar Electrode Focusing: Faradaic Ion Concentration Polarization. Analytical Chemistry, 2011, 83, 2351-2358.	6.5	83
33	Pressure-Driven Bipolar Electrochemistry. Journal of the American Chemical Society, 2011, 133, 4687-4689.	13.7	27
34	Label-Free Electrochemical Monitoring of Concentration Enrichment during Bipolar Electrode Focusing. Analytical Chemistry, 2011, 83, 6746-6753.	6.5	31
35	Bipolar Electrodes: A Useful Tool for Concentration, Separation, and Detection of Analytes in Microelectrochemical Systems. Analytical Chemistry, 2010, 82, 8766-8774.	6.5	295
36	Bipolar Electrode Focusing: Simultaneous Concentration Enrichment and Separation in a Microfluidic Channel Containing a Bipolar Electrode. Analytical Chemistry, 2009, 81, 8923-8929.	6.5	111

#	Article	IF	Citations
37	Bipolar Electrode Focusing: The Effect of Current and Electric Field on Concentration Enrichment. Analytical Chemistry, 2009, 81, 10149-10155.	6.5	81
38	Electric field gradient focusing in microchannels with embedded bipolar electrode. Lab on A Chip, 2009, 9, 1903.	6.0	93
39	Immobilization of DNA onto Poly(dimethylsiloxane) Surfaces and Application to a Microelectrochemical Enzyme-Amplified DNA Hybridization Assay. Langmuir, 2004, 20, 5905-5910.	3.5	72