

# 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	Bipolar Electrodes: A Useful Tool for Concentration, Separation, and Detection of Analytes in Microelectrochemical Systems. <i>Analytical Chemistry</i> , 2010, 82, 8766-8774.	6.5	295
2	High-Throughput Selective Capture of Single Circulating Tumor Cells by Dielectrophoresis at a Wireless Electrode Array. <i>Journal of the American Chemical Society</i> , 2017, 139, 8950-8959.	13.7	115
3	Bipolar Electrode Focusing: Simultaneous Concentration Enrichment and Separation in a Microfluidic Channel Containing a Bipolar Electrode. <i>Analytical Chemistry</i> , 2009, 81, 8923-8929.	6.5	111
4	Electric field gradient focusing in microchannels with embedded bipolar electrode. <i>Lab on A Chip</i> , 2009, 9, 1903.	6.0	93
5	Electrochemically Mediated Seawater Desalination. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 8107-8110.	13.8	89
6	Recent advancements in ion concentration polarization. <i>Analyst, The</i> , 2016, 141, 3496-3510.	3.5	84
7	Bipolar Electrode Focusing: Faradaic Ion Concentration Polarization. <i>Analytical Chemistry</i> , 2011, 83, 2351-2358.	6.5	83
8	Bipolar Electrode Focusing: The Effect of Current and Electric Field on Concentration Enrichment. <i>Analytical Chemistry</i> , 2009, 81, 10149-10155.	6.5	81
9	Immobilization of DNA onto Poly(dimethylsiloxane) Surfaces and Application to a Microelectrochemical Enzyme-Amplified DNA Hybridization Assay. <i>Langmuir</i> , 2004, 20, 5905-5910.	3.5	72
10	Recent Advancements in Bipolar Electrochemical Methods of Analysis. <i>Analytical Chemistry</i> , 2021, 93, 103-123.	6.5	69
11	Bipolar electrode focusing: tuning the electric field gradient. <i>Lab on A Chip</i> , 2011, 11, 518-527.	6.0	65
12	Negative Dielectrophoretic Capture and Repulsion of Single Cells at a Bipolar Electrode: The Impact of Faradaic Ion Enrichment and Depletion. <i>Journal of the American Chemical Society</i> , 2015, 137, 776-783.	13.7	49
13	Dual-channel bipolar electrode focusing: simultaneous separation and enrichment of both anions and cations. <i>Lab on A Chip</i> , 2012, 12, 4107.	6.0	45
14	Cellular dielectrophoresis coupled with single-cell analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 2499-2515.	3.7	44
15	A Self-Organized Digitization Dielectrophoretic (SD-DEP) Chip for High-Efficiency Single-Cell Capture, On-Demand Compartmentalization, and Downstream Nucleic Acid Analysis. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 11378-11383.	13.8	34
16	Label-Free Electrochemical Monitoring of Concentration Enrichment during Bipolar Electrode Focusing. <i>Analytical Chemistry</i> , 2011, 83, 6746-6753.	6.5	31
17	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. <i>Analytical Chemistry</i> , 2020, 92, 3346-3353.	6.5	30
18	Pressure-Driven Bipolar Electrochemistry. <i>Journal of the American Chemical Society</i> , 2011, 133, 4687-4689.	13.7	27

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19	Concentration Enrichment, Separation, and Cation Exchange in Nanoliter-Scale Water-in-Oil Droplets. <i>Journal of the American Chemical Society</i> , 2020, 142, 3196-3204.	13.7	24
20	Integration of marker-free selection of single cells at a wireless electrode array with parallel fluidic isolation and electrical lysis. <i>Chemical Science</i> , 2019, 10, 1506-1513.	7.4	23
21	Tutorial review: Enrichment and separation of neutral and charged species by ion concentration polarization focusing. <i>Analytica Chimica Acta</i> , 2020, 1128, 149-173.	5.4	23
22	New Generation of Ensemble-Decision Aliquot Ranking Based on Simplified Microfluidic Components for Large-Capacity Trapping of Circulating Tumor Cells. <i>Analytical Chemistry</i> , 2013, 85, 9671-9677.	6.5	22
23	Alternating Current Voltammetry at a Bipolar Electrode with Smartphone Luminescence Imaging for Point-of-Care Need Sensing. <i>ChemElectroChem</i> , 2020, 7, 1172-1181.	3.4	22
24	Analytical tools for characterizing heterogeneity in organelle content. <i>Current Opinion in Chemical Biology</i> , 2012, 16, 391-399.	6.1	21
25	Improved Detection by Ensemble-Decision Aliquot Ranking of Circulating Tumor Cells with Low Numbers of a Targeted Surface Antigen. <i>Analytical Chemistry</i> , 2015, 87, 9389-9395.	6.5	21
26	An Electrokinetic Separation Route to Source Dialysate from Excess Fluid in Blood. <i>Analytical Chemistry</i> , 2018, 90, 3720-3726.	6.5	16
27	A Self-Digitization Dielectrophoretic (SD-DEP) Chip for High-Efficiency Single-Cell Capture, On-Demand Compartmentalization, and Downstream Nucleic Acid Analysis. <i>Angewandte Chemie</i> , 2018, 130, 11548-11553.	2.0	12
28	Recent advances in microscale extraction driven by ion concentration polarization. <i>TrAC - Trends in Analytical Chemistry</i> , 2022, 148, 116537.	11.4	12
29	Visual Voltammogram at an Array of Closed Bipolar Electrodes in a Ladder Configuration. <i>Journal of Analysis and Testing</i> , 2019, 3, 150-159.	5.1	11
30	Redox Cycling at an Array of Interdigitated Bipolar Electrodes for Enhanced Sensitivity in Biosensing**. <i>ChemElectroChem</i> , 2021, 8, 3482-3491.	3.4	10
31	Continuous micellar electrokinetic focusing of neutral species driven by ion concentration polarization. <i>Lab on A Chip</i> , 2019, 19, 2233-2240.	6.0	9
32	Computational framework for resolving boundary layers in electrochemical systems using weak imposition of Dirichlet boundary conditions. <i>Finite Elements in Analysis and Design</i> , 2022, 205, 103749.	3.2	9
33	Defining Cell Cluster Size by Dielectrophoretic Capture at an Array of Wireless Electrodes of Several Distinct Lengths. <i>Micromachines</i> , 2019, 10, 271.	2.9	8
34	Out-of-plane faradaic ion concentration polarization: stable focusing of charged analytes at a three-dimensional porous electrode. <i>Lab on A Chip</i> , 2022, 22, 573-583.	6.0	8
35	Tuning the Electrochemical Redox Potentials of Catechol with Boronic Acid Derivatives. <i>Journal of Organic Chemistry</i> , 2019, 84, 2346-2350.	3.2	6
36	Modulating patterns of two-phase flow with electric fields. <i>Biomicrofluidics</i> , 2014, 8, 044106.	2.4	5

#	ARTICLE	IF	CITATIONS
37	Interfacing electronic and genetic circuits. <i>Nature Chemistry</i> , 2020, 12, 14-16.	13.6	1
38	Electropolymerization of Pyrrole-Based Ionic Liquids on Selected Wireless Bipolar Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 18087-18096.	8.0	1
39	A Tribute to Richard M. Crooks on the Occasion of His 65th Birthday. <i>ChemElectroChem</i> , 2020, 7, 1062-1066.	3.4	0