Venkateshkumar Prabhakaran

List of Publications by Year
in descending order

49 papers	1,532 citations	394421 19 h-index	315739 38 g-index
50 all docs	50 docs citations	50 times ranked	2080 citing authors

#	Article	IF	Citations
1	<i>In situ</i> x-ray photoelectron spectroscopy analysis of electrochemical interfaces in battery: Recent advances and remaining challenges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	16
2	Functionalization of Electrodes with Tunable [EMIM]_{<i>x</i>}[Cl]_{<i>x</i>+1}^{â€“} Ionic Liquid Clusters for Electrochemical Separations. Chemistry of Materials, 2022, 34, 2612-2623.	6.7	5
3	Imaging and Direct Sampling Capabilities of Nanospray Desorption Electrospray Ionization with Absorption-Mode 21 Tesla Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. Analytical Chemistry, 2022, 94, 3629-3636.	6.5	14
4	Taâ€“TiOx nanoparticles as radical scavengers to improve the durability of Feâ€“Nâ€“C oxygen reduction catalysts. Nature Energy, 2022, 7, 281-289.	39.5	93
5	Tuning the Charge and Hydrophobicity of Graphene Oxide Membranes by Functionalization with Ionic Liquids at Epoxide Sites. ACS Applied Materials & Interfaces, 2022, 14, 19031-19042.	8.0	6
6	Lowâ€PGM and PGMâ€Free Catalysts for Proton Exchange Membrane Fuel Cells: Stability Challenges and Material Solutions. Advanced Materials, 2021, 33, e1908232.	21.0	201
7	Graphene Oxide as a Pb(II) Separation Medium: Has Part of the Story Been Overlooked?. Jacs Au, 2021, 1, 766-776.	7.9	9
8	Long-Term Structural and Chemical Stability of Carbon Electrodes in Vanadium Redox Flow Battery. ACS Applied Energy Materials, 2021, 4, 6074-6081.	5.1	14
9	Insights into Spontaneous Solid Electrolyte Interphase Formation at Magnesium Metal Anode Surface from <i>Ab Initio</i> Molecular Dynamics Simulations. ACS Applied Materials & Interfaces, 2021, 13, 38816-38825.	8.0	20
10	Role of Polysulfide Anions in Solid-Electrolyte Interphase Formation at the Lithium Metal Surface in Liâ€“S Batteries. Journal of Physical Chemistry Letters, 2021, 12, 9360-9367.	4.6	13
11	Structure and Stability of the Ionic Liquid Clusters [EMIM]_{<i>n</i>}[BF₄]_{<i>n</i>+1}^{â€“} (<i>n</i> = 1â€“9): Implications for Electrochemical Separations. Journal of Physical Chemistry Letters, 2020, 11, 6844-6851.	4.6	12
12	Ion Mobility Spectrometry with High Ion Utilization Efficiency Using Traveling Wave-Based Structures for Lossless Ion Manipulations. Analytical Chemistry, 2020, 92, 14930-14938.	6.5	12
13	Mapping Localized Peroxyl Radical Generation on a PEM Fuel Cell Catalyst Using Integrated Scanning Electrochemical Cell Microspectroscopy. Frontiers in Chemistry, 2020, 8, 572563.	3.6	5
14	Directing Chemistry at Electrodes Using Precisely-Defined Electrochemical Interfaces. ECS Meeting Abstracts, 2020, MA2020-01, 227-227.	0.0	0
15	Controlling Reactive Battery Interfaces Using Electron-Accepting Surface Layers. ECS Meeting Abstracts, 2020, MA2020-01, 125-125.	0.0	0
16	Electroosmotic extraction coupled to mass spectrometry analysis of metabolites in live cells. Methods in Enzymology, 2019, 628, 293-307.	1.0	3
17	Ironâ€Free Cathode Catalysts for Protonâ€Exchangeâ€Membrane Fuel Cells: Cobalt Catalysts and the Peroxide Mitigation Approach. Advanced Materials, 2019, 31, e1805126.	21.0	208
18	Controlling the Activity and Stability of Electrochemical Interfaces Using Atom-by-Atom Metal Substitution of Redox Species. ACS Nano, 2019, 13, 458-466.	14.6	29

#	Article	IF	Citations
19	Development of Integrated Scanning Electrochemical Cell Microspectroscopy for Characterization of Redox and Reactive Electrochemistry. ECS Meeting Abstracts, 2019, , .	0.0	0
20	Understanding Electrochemical Interface Using Atom-By-Atom Metal Substitution of Redox Species. ECS Meeting Abstracts, 2019, , .	0.0	0
21	Predicting the Role of Interfacial Reactivity on SEI Layer Evolution Using Multimodal Analysis. ECS Meeting Abstracts, 2019, , .	0.0	0
22	Von isolierten Ionen zu mehrschichtigen funktionellen Materialien durch sanfte Landung von Ionen. Angewandte Chemie, 2018, 130, 16506-16521.	2.0	10
23	DRILL Interface Makes Ion Soft Landing Broadly Accessible for Energy Science and Applications. Batteries and Supercaps, 2018, 1, 97-101.	4.7	13
24	In Situ Infrared Spectroelectrochemistry for Understanding Structural Transformations of Precisely Defined Ions at Electrochemical Interfaces. Analytical Chemistry, 2018, 90, 10935-10942.	6.5	25
25	From Isolated Ions to Multilayer Functional Materials Using Ion Soft Landing. Angewandte Chemie - International Edition, 2018, 57, 16270-16284.	13.8	75
26	Quantitative Extraction and Mass Spectrometry Analysis at a Single-Cell Level. Analytical Chemistry, 2018, 90, 7937-7945.	6.5	54
27	Hierarchically Porous Graphitic Carbon with Simultaneously High Surface Area and Colossal Pore Volume Engineered <i>via</i> Ice Templating. ACS Nano, 2017, 11, 11047-11055.	14.6	69
28	In-Situ Solid-State Electrochemistry of Well-Defined Electrode-Electrolyte Interfaces Using Ion Soft Landing. ECS Meeting Abstracts, 2017, , .	0.0	0
29	Development and Optimization of Integrated Photoelectrochemical Energy Storage Cells Using Ion Soft-Landing. ECS Meeting Abstracts, 2017, , .	0.0	0
30	Contribution of Electrocatalyst Support to PEM Oxidative Degradation in an Operating PEFC. Journal of the Electrochemical Society, 2016, 163, F1611-F1617.	2.9	14
31	Soft Landing of Complex Ions for Studies in Catalysis and Energy Storage. Journal of Physical Chemistry C, 2016, 120, 23305-23322.	3.1	31
32	In situ solid-state electrochemistry of mass-selected ions at well-defined electrodeâ€“electrolyte interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13324-13329.	7.1	23
33	Rational design of efficient electrodeâ€“electrolyte interfaces for solid-state energy storage using ion soft landing. Nature Communications, 2016, 7, 11399.	12.8	86
34	Charge retention of soft-landed phosphotungstate Keggin anions on self-assembled monolayers. Physical Chemistry Chemical Physics, 2016, 18, 9021-9028.	2.8	15
35	Controlling the Nitrogen Content of Metal-Nitrogen-Carbon Based Non-Precious-Metal Electrocatalysts via Selenium Addition. Journal of the Electrochemical Society, 2015, 162, F475-F482.	2.9	28
36	Gas-Phase Fragmentation Pathways of Mixed Addenda Keggin Anions: PMo12-nWnO40 3â€“ (n = 0â€“12). Journal of the American Society for Mass Spectrometry, 2015, 26, 1027-1035.	2.8	12

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37	Design and performance of a high-flux electrospray ionization source for ion soft landing. Analyst, The, 2015, 140, 2957-2963.	3.5	44
38	Controlling the Charge State and Redox Properties of Supported Polyoxometalates via Soft Landing of Mass-Selected Ions. Journal of Physical Chemistry C, 2014, 118, 27611-27622.	3.1	32
39	Structurally-Tuned Nitrogen-Doped Cerium Oxide Exhibits Exceptional Regenerative Free Radical Scavenging Activity in Polymer Electrolytes. Journal of the Electrochemical Society, 2014, 161, F1-F9.	2.9	34
40	Bipolar polymer electrolyte interfaces for hydrogenâ€"oxygen and direct borohydride fuel cells. International Journal of Hydrogen Energy, 2014, 39, 14312-14321.	7.1	40
41	In situ fluorescence spectroscopy correlates ionomer degradation to reactive oxygen species generation in an operating fuel cell. Physical Chemistry Chemical Physics, 2013, 15, 18965.	2.8	20
42	Investigation of PEM Degradation Kinetics and Degradation Mitigation Using In Situ Fluorescence Spectroscopy and Real-Time Monitoring of Fluoride-Ion Release. ECS Transactions, 2013, 50, 935-944.	0.5	1
43	Structurally Tuned Nitrogen Doped Cerium Oxide as a Superior Free Radical Scavenger for Mitigating Polymer Electrolyte Membrane Degradation. ECS Transactions, 2013, 58, 991-998.	0.5	1
44	Investigation of polymer electrolyte membrane chemical degradation and degradation mitigation using in situ fluorescence spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1029-1034.	7.1	128
45	Nitrogen-doped carbon black as methanol tolerant electrocatalyst for oxygen reduction reaction in direct methanol fuel cells. Electrochimica Acta, 2012, 74, 171-175.	5.2	35
46	An In Situ Probe for Investigating PEM Degradation Kinetics and Degradation Mitigation. ECS Transactions, 2011, 41, 1347-1357.	0.5	6
47	Investigation of Molecular Probes Sensitivity to the Fenton Reaction Using Fluorescence Spectroscopy. ECS Transactions, 2010, 33, 889-897.	0.5	0
48	Carbon-Supported Palladiumâ€"Polypyrrole Nanocomposite for Oxygen Reduction and Its Tolerance to Methanol. Journal of the Electrochemical Society, 2010, 157, B1740.	2.9	22
49	Platinumâ€"tin bimetallic nanoparticles for methanol tolerant oxygen-reduction activity. Electrochimica Acta, 2008, 54, 448-454.	5.2	54