

Edmund J F Dickinson

List of Publications by Year in descending order

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46
papers

2,426
citations

257450

24
h-index

223800

46
g-index

49
all docs

49
docs citations

49
times ranked

2445
citing authors

#	ARTICLE	IF	CITATIONS
1	COMSOL Multiphysics®: Finite element software for electrochemical analysis. A mini-review. <i>Electrochemistry Communications</i> , 2014, 40, 71-74.	4.7	268
2	Voltammetric selectivity conferred by the modification of electrodes using conductive porous layers or films: The oxidation of dopamine on glassy carbon electrodes modified with multiwalled carbon nanotubes. <i>Sensors and Actuators B: Chemical</i> , 2010, 145, 417-427.	7.8	217
3	Effects of thin-layer diffusion in the electrochemical detection of nicotine on basal plane pyrolytic graphite (BPPG) electrodes modified with layers of multi-walled carbon nanotubes (MWCNT-BPPG). <i>Sensors and Actuators B: Chemical</i> , 2010, 144, 153-158.	7.8	158
4	How Much Supporting Electrolyte Is Required to Make a Cyclic Voltammetry Experiment Quantitatively "Diffusional"? A Theoretical and Experimental Investigation. <i>Journal of Physical Chemistry C</i> , 2009, 113, 11157-11171.	3.1	155
5	The Butler-Volmer equation in electrochemical theory: Origins, value, and practical application. <i>Journal of Electroanalytical Chemistry</i> , 2020, 872, 114145.	3.8	136
6	Investigating the Mechanism and Electrode Kinetics of the Oxygen Superoxide ($O_{2 O_{2\cdot-}}$) Couple in Various Room-Temperature Ionic Liquids at Gold and Platinum Electrodes in the Temperature Range 298–318 K. <i>Journal of Physical Chemistry C</i> , 2009, 113, 17811-17823.	3.1	91
7	Influence of the diffuse double layer on steady-state voltammetry. <i>Journal of Electroanalytical Chemistry</i> , 2011, 661, 198-212.	3.8	69
8	Diffuse Double Layer at Nanoelectrodes. <i>Journal of Physical Chemistry C</i> , 2009, 113, 17585-17589.	3.1	66
9	New Electrochemical Methods. <i>Analytical Chemistry</i> , 2012, 84, 669-684.	6.5	66
10	The electroneutrality approximation in electrochemistry. <i>Journal of Solid State Electrochemistry</i> , 2011, 15, 1335-1345.	2.5	62
11	Nanoparticle-modified electrodes. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 11208.	2.8	60
12	Analysis of commercial general engineering finite element software in electrochemical simulations. <i>Journal of Electroanalytical Chemistry</i> , 2010, 638, 76-83.	3.8	55
13	Redox systems obeying Marcus-Hush-Chidsey electrode kinetics do not obey the Randles equation for linear sweep voltammetry. <i>Journal of Electroanalytical Chemistry</i> , 2012, 664, 73-79.	3.8	48
14	Theory of Chronoamperometry at Cylindrical Microelectrodes and Their Arrays. <i>Journal of Physical Chemistry C</i> , 2008, 112, 11637-11644.	3.1	47
15	Modelling the Proton-Conductive Membrane in Practical Polymer Electrolyte Membrane Fuel Cell (PEMFC) Simulation: A Review. <i>Membranes</i> , 2020, 10, 310.	3.0	46
16	The Butler-Volmer Equation for Polymer Electrolyte Membrane Fuel Cell (PEMFC) Electrode Kinetics: A Critical Discussion. <i>Journal of the Electrochemical Society</i> , 2019, 166, F221-F231.	2.9	44
17	Cyclic Voltammetry in the Absence of Excess Supporting Electrolyte Offers Extra Kinetic and Mechanistic Insights: Comproportionation of Anthraquinone and the Anthraquinone Dianion in Acetonitrile. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 9242-9245.	13.8	43
18	Chronoamperometry and Cyclic Voltammetry at Conical Electrodes, Microelectrodes, and Electrode Arrays: Theory. <i>Journal of Physical Chemistry B</i> , 2008, 112, 4059-4066.	2.6	42

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19	On the estimation of the diffuse double layer of carbon nanotubes using classical theory: Curvature effects on the Gouy-Chapman limit. <i>Chemical Physics Letters</i> , 2010, 485, 167-170.	2.6	40
20	Diffusional Cyclic Voltammetry at Electrodes Modified with Random Distributions of Electrocatalytic Nanoparticles: Theory. <i>Journal of Physical Chemistry C</i> , 2009, 113, 11149-11156.	3.1	38
21	Quantitative Voltammetry in Weakly Supported Media. Chronoamperometric Studies on Diverse One Electron Redox Couples Containing Various Charged Species: Dissecting Diffusional and Migrational Contributions and Assessing the Breakdown of Electroneutrality. <i>Journal of Physical Chemistry C</i> , 2010, 114, 2227-2236.	3.1	37
22	Dynamic Theory of Liquid Junction Potentials. <i>Journal of Physical Chemistry B</i> , 2010, 114, 187-197.	2.6	33
23	Nanoparticle-electrode collision studies: Brownian motion and the timescale of nanoparticle oxidation. <i>Chemical Physics Letters</i> , 2012, 528, 44-48.	2.6	33
24	Electrochemical random-walk theory. <i>Journal of Electroanalytical Chemistry</i> , 2011, 655, 1-8.	3.8	28
25	Electrochemical Oxidation of Hydrogen Sulfide at Platinum Electrodes in Room Temperature Ionic Liquids: Evidence for Significant Accumulation of H ₂ S at the Pt/1-Butyl-3-methylimidazolium Trifluoromethylsulfonate Interface. <i>Journal of Physical Chemistry C</i> , 2009, 113, 10997-11002.	3.1	23
26	How well does simple RC circuit analysis describe diffuse double layer capacitance at smooth micro- and nanoelectrodes?. <i>Journal of Electroanalytical Chemistry</i> , 2011, 655, 23-31.	3.8	22
27	Modeling Diffusion Effects for a Stepwise Two-Electron Reduction Process at a Microelectrode: Study of the Reduction of <i>para</i> -Quaterphenyl in Tetrahydrofuran and Inference of Fast Comproportionation of the Dianion with the Neutral Parent Molecule. <i>Journal of Physical Chemistry C</i> , 2009, 113, 16042-16050.	3.1	21
28	Volatilisation of ferrocene from ionic liquids: kinetics and mechanism. <i>Chemical Communications</i> , 2011, 47, 7083.	4.1	21
29	Cyclic voltammetry in weakly supported media: The reduction of the cobaltocenium cation in acetonitrile - Comparison between theory and experiment. <i>Journal of Electroanalytical Chemistry</i> , 2010, 650, 135-142.	3.8	20
30	Influence of H ₂ S on the pitting corrosion of 316L stainless steel in oilfield brine. <i>Corrosion Science</i> , 2021, 182, 109265.	6.6	20
31	Dynamics of Ion Transfer Potentials at Liquid-Liquid Interfaces. <i>Journal of Physical Chemistry B</i> , 2011, 115, 6909-6921.	2.6	18
32	The zero-field approximation for weakly supported voltammetry: A critical evaluation. <i>Chemical Physics Letters</i> , 2010, 497, 178-183.	2.6	17
33	Dynamic Theory of Type 3 Liquid Junction Potentials: Formation of Multilayer Liquid Junctions. <i>Journal of Physical Chemistry B</i> , 2010, 114, 4521-4528.	2.6	17
34	The Kinetics of Ferrocene Volatilisation from an Ionic Liquid. <i>ChemPhysChem</i> , 2011, 12, 1708-1713.	2.1	16
35	Dynamic Theory of Membrane Potentials. <i>Journal of Physical Chemistry B</i> , 2010, 114, 10763-10773.	2.6	14
36	Quantitative Voltammetry in Weakly Supported Media. Two Electron Transfer, Chronoamperometry of Electrodeposition and Stripping for Cadmium at Microhemispherical Mercury Electrodes. <i>Journal of Physical Chemistry C</i> , 2009, 113, 15320-15325.	3.1	13

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37	Assessing potential profiles in water electrolyzers to minimise titanium use. <i>Energy and Environmental Science</i> , 2022, 15, 2508-2518.	30.8	13
38	Voltammetry Involving Amalgam Formation and Anodic Stripping in Weakly Supported Media: Theory and Experiment. <i>Journal of Physical Chemistry C</i> , 2010, 114, 7120-7127.	3.1	12
39	Dynamics of Ion Transfer Potentials at Liquid-Liquid Interfaces: The Case of Multiple Species. <i>Journal of Physical Chemistry B</i> , 2011, 115, 12429-12440.	2.6	10
40	Comparison of methodologies to estimate state-of-health of commercial Li-ion cells from electrochemical frequency response data. <i>Journal of Power Sources</i> , 2022, 542, 231814.	7.8	10
41	Theory of diffusion to an annular microband electrode. <i>Journal of Electroanalytical Chemistry</i> , 2009, 625, 40-46.	3.8	7
42	Volatilisation of substituted ferrocene compounds of different sizes from room temperature ionic liquids: a kinetic and mechanistic study. <i>New Journal of Chemistry</i> , 2012, 36, 774.	2.8	7
43	Improved Operando Raman Cell Configuration for Commercially-Sourced Electrodes in Alkali-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2021, 168, 070541.	2.9	5
44	Dynamic simulation of the moving boundary method for measuring transference numbers. <i>Chemical Physics Letters</i> , 2011, 513, 136-138.	2.6	1
45	Impact of hydroxide ion-chloride ion concentration ratio on crack electrochemistry. <i>Corrosion Engineering Science and Technology</i> , 2020, 55, 574-578.	1.4	1
46	Nanoscale characteristics of electrochemical systems. <i>Frontiers of Nanoscience</i> , 2021, 18, 1-48.	0.6	0