Edmund J F Dickinson

List of Publications by Year
in descending order

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	Assessing potential profiles in water electrolysers to minimise titanium use. Energy and Environmental Science, 2022, 15, 2508-2518.	30.8	13
2	Comparison of methodologies to estimate state-of-health of commercial Li-ion cells from electrochemical frequency response data. Journal of Power Sources, 2022, 542, 231814.	7.8	10
3	Influence of H2S on the pitting corrosion of 316L stainless steel in oilfield brine. Corrosion Science, 2021, 182, 109265.	6.6	20
4	Improved Operando Raman Cell Configuration for Commercially-Sourced Electrodes in Alkali-Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 070541.	2.9	5
5	Nanoscale characteristics of electrochemical systems. Frontiers of Nanoscience, 2021, 18, 1-48.	0.6	0
6	Modelling the Proton-Conductive Membrane in Practical Polymer Electrolyte Membrane Fuel Cell (PEMFC) Simulation: A Review. Membranes, 2020, 10, 310.	3.0	46
7	Impact of hydroxide ionâ€“chloride ion concentration ratio on crack electrochemistry. Corrosion Engineering Science and Technology, 2020, 55, 574-578.	1.4	1
8	The Butler-Volmer equation in electrochemical theory: Origins, value, and practical application. Journal of Electroanalytical Chemistry, 2020, 872, 114145.	3.8	136
9	The Butler-Volmer Equation for Polymer Electrolyte Membrane Fuel Cell (PEMFC) Electrode Kinetics: A Critical Discussion. Journal of the Electrochemical Society, 2019, 166, F221-F231.	2.9	44
10	COMSOL MultiphysicsÂ®: Finite element software for electrochemical analysis. A mini-review. Electrochemistry Communications, 2014, 40, 71-74.	4.7	268
11	Volatilisation of substituted ferrocene compounds of different sizes from room temperature ionic liquids: a kinetic and mechanistic study. New Journal of Chemistry, 2012, 36, 774.	2.8	7
12	Redox systems obeying Marcusâ€“Hushâ€“Chidsey electrode kinetics do not obey the Randlesâ€“ÅevÄĂk equation for linear sweep voltammetry. Journal of Electroanalytical Chemistry, 2012, 664, 73-79.	3.8	48
13	New Electrochemical Methods. Analytical Chemistry, 2012, 84, 669-684.	6.5	66
14	Nanoparticleâ€“electrode collision studies: Brownian motion and the timescale of nanoparticle oxidation. Chemical Physics Letters, 2012, 528, 44-48.	2.6	33
15	Volatilisation of ferrocene from ionic liquids: kinetics and mechanism. Chemical Communications, 2011, 47, 7083.	4.1	21
16	Dynamics of Ion Transfer Potentials at Liquidâ€“Liquid Interfaces. Journal of Physical Chemistry B, 2011, 115, 6909-6921.	2.6	18
17	Dynamics of Ion Transfer Potentials at Liquidâ€“Liquid Interfaces: The Case of Multiple Species. Journal of Physical Chemistry B, 2011, 115, 12429-12440.	2.6	10
18	Influence of the diffuse double layer on steady-state voltammetry. Journal of Electroanalytical Chemistry, 2011, 661, 198-212.	3.8	69

#	Article	IF	Citations
19	Dynamic simulation of the moving boundary method for measuring transference numbers. Chemical Physics Letters, 2011, 513, 136-138.	2.6	1
20	The electroneutrality approximation in electrochemistry. Journal of Solid State Electrochemistry, 2011, 15, 1335-1345.	2.5	62
21	How well does simple RC circuit analysis describe diffuse double layer capacitance at smooth micro- and nanoelectrodes?. Journal of Electroanalytical Chemistry, 2011, 655, 23-31.	3.8	22
22	The Kinetics of Ferrocene Volatilisation from an Ionic Liquid. ChemPhysChem, 2011, 12, 1708-1713.	2.1	16
23	Electrochemical random-walk theory. Journal of Electroanalytical Chemistry, 2011, 655, 1-8.	3.8	28
24	Nanoparticle-modified electrodes. Physical Chemistry Chemical Physics, 2010, 12, 11208.	2.8	60
25	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. Sensors and Actuators B: Chemical, 2010, 145, 417-427.	7.8	217
26	Cyclic Voltammetry in the Absence of Excess Supporting Electrolyte Offers Extra Kinetic and Mechanistic Insights: Comproportionation of Anthraquinone and the Anthraquinone Dianion in Acetonitrile. Angewandte Chemie - International Edition, 2010, 49, 9242-9245.	13.8	43
27	Analysis of commercial general engineering finite element software in electrochemical simulations. Journal of Electroanalytical Chemistry, 2010, 638, 76-83.	3.8	55
28	Cyclic voltammetry in weakly supported media: The reduction of the cobaltocenium cation in acetonitrile â€“ Comparison between theory and experiment. Journal of Electroanalytical Chemistry, 2010, 650, 135-142.	3.8	20
29	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). Sensors and Actuators B: Chemical, 2010, 144, 153-158.	7.8	158
30	On the estimation of the diffuse double layer of carbon nanotubes using classical theory: Curvature effects on the Gouyâ€“Chapman limit. Chemical Physics Letters, 2010, 485, 167-170.	2.6	40
31	The zero-field approximation for weakly supported voltammetry: A critical evaluation. Chemical Physics Letters, 2010, 497, 178-183.	2.6	17
32	Dynamic Theory of Liquid Junction Potentials. Journal of Physical Chemistry B, 2010, 114, 187-197.	2.6	33
33	Voltammetry Involving Amalgam Formation and Anodic Stripping in Weakly Supported Media: Theory and Experiment. Journal of Physical Chemistry C, 2010, 114, 7120-7127.	3.1	12
34	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. Journal of Physical Chemistry C, 2010, 114, 2227-2236.	3.1	37
35	Dynamic Theory of Membrane Potentials. Journal of Physical Chemistry B, 2010, 114, 10763-10773.	2.6	14
36	Dynamic Theory of Type 3 Liquid Junction Potentials: Formation of Multilayer Liquid Junctions. Journal of Physical Chemistry B, 2010, 114, 4521-4528.	2.6	17

#	Article	IF	Citations
37	Theory of diffusion to an â€œannular microbandâ€•electrode. Journal of Electroanalytical Chemistry, 2009, 625, 40-46.	3.8	7
38	Quantitative Voltammetry in Weakly Supported Media. Two Electron Transfer, Chronoamperometry of Electrodeposition and Stripping for Cadmium at Microhemispherical Mercury Electrodes. Journal of Physical Chemistry C, 2009, 113, 15320-15325.	3.1	13
39	Modeling Diffusion Effects for a Stepwise Two-Electron Reduction Process at a Microelectrode: Study of the Reduction of para-Quaterphenyl in Tetrahydrofuran and Inference of Fast Comproportionation of the Dianion with the Neutral Parent Molecule. Journal of Physical Chemistry C, 2009, 113, 16042-16050.	3.1	21
40	Diffuse Double Layer at Nanoelectrodes. Journal of Physical Chemistry C, 2009, 113, 17585-17589.	3.1	66
41	Electrochemical Oxidation of Hydrogen Sulfide at Platinum Electrodes in Room Temperature Ionic Liquids: Evidence for Significant Accumulation of H2S at the Pt/1-Butyl-3-methylimidazolium Trifluoromethylsulfonate Interface. Journal of Physical Chemistry C, 2009, 113, 10997-11002.	3.1	23
42	How Much Supporting Electrolyte Is Required to Make a Cyclic Voltammetry Experiment Quantitatively â€œDiffusionalâ€? A Theoretical and Experimental Investigation. Journal of Physical Chemistry C, 2009, 113, 11157-11171.	3.1	155
43	Diffusional Cyclic Voltammetry at Electrodes Modified with Random Distributions of Electrocatalytic Nanoparticles: Theory. Journal of Physical Chemistry C, 2009, 113, 11149-11156.	3.1	38
44	Investigating the Mechanism and Electrode Kinetics of the Oxygen|Superoxide (O₂|O₂^{â€¢â^'}) Couple in Various Room-Temperature Ionic Liquids at Gold and Platinum Electrodes in the Temperature Range 298â^'318 K. Journal of Physical Chemistry C, 2009, 113, 17811-17823.	3.1	91
45	Chronoamperometry and Cyclic Voltammetry at Conical Electrodes, Microelectrodes, and Electrode Arrays:â€‰ Theory. Journal of Physical Chemistry B, 2008, 112, 4059-4066.	2.6	42
46	Theory of Chronoamperometry at Cylindrical Microelectrodes and Their Arrays. Journal of Physical Chemistry C, 2008, 112, 11637-11644.	3.1	47