Edmund J F Dickinson

List of Publications by Citations

46 papers	1,918 citations	23 h-index	43 g-index
49 ext. papers	2,134 ext. citations	4.9 avg, IF	5.16 L-index

#	Paper	IF	Citations
46	Understanding Voltammetry **2011**,		222
45	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	8.5	200
44	COMSOL Multiphysics : Finite element software for electrochemical analysis. A mini-review. *Electrochemistry Communications*, **2014**, 40, 71-74	5.1	144
43	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	8.5	142
42	How Much Supporting Electrolyte Is Required to Make a Cyclic Voltammetry Experiment Quantitatively Diffusional? A Theoretical and Experimental Investigation. *Journal of Physical Chemistry C*, **2009**, 113, 11157-11171	3.8	135
41	Investigating the Mechanism and Electrode Kinetics of the Oxygen|Superoxide (O_2|O_2^-) Couple in Various Room-Temperature Ionic Liquids at Gold and Platinum Electrodes in the Temperature Range 298−318 K. *Journal of Physical Chemistry C*, **2009**, 113, 17811-17823	3.8	82
40	Influence of the diffuse double layer on steady-state voltammetry. *Journal of Electroanalytical Chemistry*, **2011**, 661, 198-212	4.1	63
39	Diffuse Double Layer at Nanoelectrodes. *Journal of Physical Chemistry C*, **2009**, 113, 17585-17589	3.8	63
38	New electrochemical methods. *Analytical Chemistry*, **2012**, 84, 669-84	7.8	55
37	Nanoparticle-modified electrodes. *Physical Chemistry Chemical Physics*, **2010**, 12, 11208-21	3.6	54
36	Analysis of commercial general engineering finite element software in electrochemical simulations. *Journal of Electroanalytical Chemistry*, **2010**, 638, 76-83	4.1	48
35	The Butler-Volmer equation in electrochemical theory: Origins, value, and practical application. *Journal of Electroanalytical Chemistry*, **2020**, 872, 114145	4.1	47
34	The electroneutrality approximation in electrochemistry. *Journal of Solid State Electrochemistry*, **2011**, 15, 1335-1345	2.6	46
33	Theory of Chronoamperometry at Cylindrical Microelectrodes and Their Arrays. *Journal of Physical Chemistry C*, **2008**, 112, 11637-11644	3.8	41
32	On the estimation of the diffuse double layer of carbon nanotubes using classical theory: Curvature effects on the Gouy−Chapman limit. *Chemical Physics Letters*, **2010**, 485, 167-170	2.5	39
31	Chronoamperometry and cyclic voltammetry at conical electrodes, microelectrodes, and electrode arrays: theory. *Journal of Physical Chemistry B*, **2008**, 112, 4059-66	3.4	39
30	Redox systems obeying Marcus−Hush−Chidsey electrode kinetics do not obey the Randles−Ševčík equation for linear sweep voltammetry. *Journal of Electroanalytical Chemistry*, **2012**, 664, 73-79	4.1	35

29	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	3.8	35
28	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, 9242-5	16.4	35
27	Diffusional Cyclic Voltammetry at Electrodes Modified with Random Distributions of Electrocatalytic Nanoparticles: Theory. *Journal of Physical Chemistry C*, **2009**, 113, 11149-11156	3.8	33
26	Nanoparticle–electrode collision studies: Brownian motion and the timescale of nanoparticle oxidation. *Chemical Physics Letters*, **2012**, 528, 44-48	2.5	31
25	Dynamic theory of liquid junction potentials. *Journal of Physical Chemistry B*, **2010**, 114, 187-97	3.4	30
24	Electrochemical random-walk theory. *Journal of Electroanalytical Chemistry*, **2011**, 655, 1-8	4.1	28
23	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	3.8	22
22	Volatilisation of ferrocene from ionic liquids: kinetics and mechanism. *Chemical Communications*, **2011**, 47, 7083-5	5.8	21
21	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	3.9	20
20	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	3.8	19
19	Cyclic voltammetry in weakly supported media: The reduction of the cobaltocenium cation in acetonitrile—Comparison between theory and experiment. *Journal of Electroanalytical Chemistry*, **2010**, 650, 135-142	4.1	18
18	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	4.1	17
17	The zero-field approximation for weakly supported voltammetry: A critical evaluation. *Chemical Physics Letters*, **2010**, 497, 178-183	2.5	17
16	The kinetics of ferrocene volatilisation from an ionic liquid. *ChemPhysChem*, **2011**, 12, 1708-13	3.2	16
15	Dynamic theory of type 3 liquid junction potentials: formation of multilayer liquid junctions. *Journal of Physical Chemistry B*, **2010**, 114, 4521-8	3.4	15
14	Dynamics of ion transfer potentials at liquid-liquid interfaces. *Journal of Physical Chemistry B*, **2011**, 115, 6909-21	3.4	15
13	Modelling the Proton-Conductive Membrane in Practical Polymer Electrolyte Membrane Fuel Cell (PEMFC) Simulation: A Review. *Membranes*, **2020**, 10,	3.8	14
12	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	3.8	13

11	Voltammetry Involving Amalgam Formation and Anodic Stripping in Weakly Supported Media: Theory and Experiment. *Journal of Physical Chemistry C*, **2010**, 114, 7120-7127	3.8	12
10	Dynamic theory of membrane potentials. *Journal of Physical Chemistry B*, **2010**, 114, 10763-73	3.4	11
9	Dynamics of ion transfer potentials at liquid-liquid interfaces: the case of multiple species. *Journal of Physical Chemistry B*, **2011**, 115, 12429-40	3.4	9
8	Theory of diffusion to an annular microband electrode. *Journal of Electroanalytical Chemistry*, **2009**, 625, 40-46	4.1	7
7	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*, **2010**, 122, 9428-9431	3.6	7
6	Influence of HS on the pitting corrosion of 316L stainless steel in oilfield brine. *Corrosion Science*, **2021**, 182,	6.8	7
5	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	3.6	6
4	Improved Operando Raman Cell Configuration for Commercially-Sourced Electrodes in Alkali-Ion Batteries. *Journal of the Electrochemical Society*, **2021**, 168, 070541	3.9	3
3	Dynamic simulation of the moving boundary method for measuring transference numbers. *Chemical Physics Letters*, **2011**, 513, 136-138	2.5	1
2	Impact of hydroxide ion chloride ion concentration ratio on crack electrochemistry. *Corrosion Engineering Science and Technology*, **2020**, 55, 574-578	1.7	0
1	Nanoscale characteristics of electrochemical systems. *Frontiers of Nanoscience*, **2021**, 18, 1-48	0.7	