Oleksiy V Klymenko

List of Publications by Year
in descending order

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77	2,087	279487	243296
papers	citations	23 h-index	44 g-index

78	78	78	1638
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Voltammetry of Oxygen in the Room-Temperature Ionic Liquids 1-Ethyl-3-methylimidazolium Bis((trifluoromethyl)sulfonyl)imide and Hexyltriethylammonium Bis((trifluoromethyl)sulfonyl)imide:â€‰ One-Electron Reduction To Form Superoxide. Steady-State and Transient Behavior in the Same Cyclic Voltammogram Resulting from Widely Different Diffusion Coefficients of Oxygen and Superoxide. Journal of Physical Chemistry A, 2003, 107, 8872-8878.	1.1	248
2	Electroreduction of Oxygen in a Series of Room Temperature Ionic Liquids Composed of Group 15-Centered Cations and Anions. Journal of Physical Chemistry B, 2004, 108, 7878-7886.	1.2	216
3	A Comparative Electrochemical Study of Diffusion in Room Temperature Ionic Liquid Solvents versus Acetonitrile. ChemPhysChem, 2005, 6, 526-533.	1.0	137
4	Oxidation of N,N,Nâ€²,Nâ€²-tetraalkyl-para-phenylenediamines in a series of room temperature ionic liquids incorporating the bis(trifluoromethylsulfonyl)imide anion. Journal of Electroanalytical Chemistry, 2003, 556, 179-188.	1.9	125
5	Double potential step chronoamperometry at microdisk electrodes: simulating the case of unequal diffusion coefficients. Journal of Electroanalytical Chemistry, 2004, 571, 211-221.	1.9	88
6	Kinetic Analysis of the Reaction between Electrogenerated Superoxide and Carbon Dioxide in the Room Temperature Ionic Liquids 1-Ethyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)imide and Hexyltriethylammonium Bis(trifluoromethylsulfonyl)imide. Journal of Physical Chemistry B, 2004, 108, 3947-3954.	1.2	81
7	Marcus theory of outer-sphere heterogeneous electron transfer reactions: High precision steady-state measurements of the standard electrochemical rate constant for ferrocene derivatives in alkyl cyanide solvents. Journal of Electroanalytical Chemistry, 2005, 580, 78-86.	1.9	61
8	A new strategy for simulation of electrochemical mechanisms involving acute reaction fronts in solution: Principle. Electrochemistry Communications, 2010, 12, 1170-1173.	2.3	58
9	Marcus Theory of Outer-Sphere Heterogeneous Electron Transfer Reactions:Â Dependence of the Standard Electrochemical Rate Constant on the Hydrodynamic Radius from High Precision Measurements of the Oxidation of Anthracene and Its Derivatives in Nonaqueous Solvents Using the High-Speed Channel Electrode. Journal of the American Chemical Society, 2004, 126, 6185-6192.	6.6	57
10	Uncovering the Missing Link between Molecular Electrochemistry and Electrocatalysis: Mechanism of the Reduction of Benzyl Chloride at Silver Cathodes. ChemElectroChem, 2014, 1, 227-240.	1.7	51
11	The electro-oxidation of N,N-dimethyl-p-toluidine in acetonitrile:. Journal of Electroanalytical Chemistry, 2002, 531, 33-42.	1.9	38
12	A new strategy for simulation of electrochemical mechanisms involving acute reaction fronts in solution: Application to model mechanisms. Electrochemistry Communications, 2010, 12, 1165-1169.	2.3	34
13	A New Approach for the Simulation of Electrochemiluminescence (ECL). ChemPhysChem, 2013, 14, 2237-2250.	1.0	34
14	Marcus Theory for Outer-Sphere Heterogeneous Electron Transfer:Â Predicting Electron-Transfer Rates for Quinones. Journal of Physical Chemistry B, 2004, 108, 13047-13051.	1.2	32
15	Evidence for Specific Solvation of Two Halocarbene Amides. Journal of the American Chemical Society, 2004, 126, 5750-5762.	6.6	31
16	Numerical simulation of partially blocked electrodes under cyclic voltammetry conditions: influence of the block unit geometry on the global electrochemical properties. Journal of Electroanalytical Chemistry, 2005, 577, 211-221.	1.9	30
17	The high speed channel electrode applied to heterogeneous kinetics: the oxidation of 1,4-phenylenediamines and related species in acetonitrile. Journal of Electroanalytical Chemistry, 2002, 534, 151-161.	1.9	29
18	New theoretical insights into the competitive roles of electron transfers involving adsorbed and homogeneous phases. Journal of Electroanalytical Chemistry, 2013, 688, 320-327.	1.9	29

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19	Importance of Correct Prediction of Initial Concentrations in Voltammetric Scans: Contrasting Roles of Thermodynamics, Kinetics, and Natural Convection. Analytical Chemistry, 2012, 84, 2792-2798.	3.2	27
20	The theory of electrodeposition in the presence of forced convection:. Journal of Electroanalytical Chemistry, 2002, 534, 13-17.	1.9	26
21	An improved configuration for simultaneous electrochemical ESR studies: a tubular electrode in a cylindrical cavity. Physical Chemistry Chemical Physics, 2004, 6, 4018.	1.3	24
22	Experimental Validation of Marcus Theory for Outer-Sphere Heterogeneous Electron-Transfer Reactions: The Oxidation of Substituted 1,4-Phenylenediamines. ChemPhysChem, 2004, 5, 1234-1240.	1.0	24
23	Molecular electrochemistry and electrocatalysis: a dynamic view. Molecular Physics, 2014, 112, 1273-1283.	0.8	24
24	Sobol' indices for problems defined in non-rectangular domains. Reliability Engineering and System Safety, 2017, 167, 218-231.	5.1	24
25	Modelling homogeneous kinetics in the double channel electrode. Journal of Electroanalytical Chemistry, 2005, 576, 333-338.	1.9	23
26	The application of fast scan cyclic voltammetry to the high speed channel electrode. Journal of Electroanalytical Chemistry, 2003, 542, 23-32.	1.9	22
27	Influence of the block geometry on the voltammetric response of partially blocked electrodes: Application to interfacial liquidâ€“liquid kinetics of aqueous vitamin B12S with random arrays of femtolitre microdroplets of dibromocyclohexane. Journal of Electroanalytical Chemistry, 2005, 580, 265-274.	1.9	22
28	Constrained global sensitivity analysis for bioprocess design space identification. Computers and Chemical Engineering, 2019, 125, 558-568.	2.0	22
29	â€˜kinfitsimâ€™â€”a software to fit kinetic data to a user selected mechanism. Computers & Chemistry, 2002, 26, 379-386.	1.2	21
30	A Novel Approach to the Simulation of Electrochemical Mechanisms Involving Acute Reaction Fronts at Disk and Band Microelectrodes. ChemPhysChem, 2012, 13, 845-859.	1.0	21
31	In Situ and Online Monitoring of Hydrodynamic Flow Profiles in Microfluidic Channels Based upon Microelectrochemistry: Concept, Theory, and Validation. ChemPhysChem, 2005, 6, 1581-1589.	1.0	20
32	Theoretical study of the EE reaction mechanism with comproportionation and different diffusivities of reactants. Electrochemistry Communications, 2010, 12, 1378-1382.	2.3	20
33	Strong and Unexpected Effects of Diffusion Rates on the Generation of Electrochemiluminescence by Amine/Transitionâ€Metal(II) Systems. ChemElectroChem, 2015, 2, 811-818.	1.7	20
34	Time-Dependent Diffusionâ€Migration at Cylindrical and Spherical Microelectrodes:Â Steady- and Quasi-Steady-State Analytical Solution Can Be Used under Transient Conditions. Analytical Chemistry, 2007, 79, 6341-6347.	3.2	19
35	Mass transport limited currents at the tubular electrode. Journal of Electroanalytical Chemistry, 2005, 575, 329-337.	1.9	18
36	Reconstruction of hydrodynamic flow profiles in a rectangular channel using electrochemical methods of analysis. Electrochimica Acta, 2007, 53, 1100-1106.	2.6	18

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37	The Electrochemical Oxidation of N,N-Diethyl-p-Phenylenediamine in DMF and Analytical Applications. Part I: Mechanistic Study. Electroanalysis, 2003, 15, 949-960.	1.5	16
38	Theory and Simulation of Diffusionâ^'Reaction into Nano- and Mesoporous Structures. Experimental Application to Sequestration of Mercury(II). Analytical Chemistry, 2008, 80, 3229-3243.	3.2	16
39	Mathematical modelling and numerical simulation of adsorption processes at microdisk electrodes. Journal of Electroanalytical Chemistry, 2005, 574, 217-237.	1.9	15
40	Mass transport corrected Tafel analysis for electrochemically reversible systems of complex stoichiometry. Journal of Electroanalytical Chemistry, 2004, 571, 207-210.	1.9	14
41	In situ and Online Monitoring of Hydrodynamic Flow Profiles in Microfluidic Channels Based upon Microelectrochemistry: Optimization of Electrode Locations. ChemPhysChem, 2006, 7, 482-487.	1.0	14
42	Modelling the osmotic behaviour of human mesenchymal stem cells. Biochemical Engineering Journal, 2019, 151, 107296.	1.8	14
43	Liquidâ€“liquid processes and kinetics in acoustically emulsified media. Physical Chemistry Chemical Physics, 2003, 5, 1652-1656.	1.3	13
44	Modelling release of nitric oxide in a slice of rat's brain: describing stimulated functional hyperemia with diffusion-reaction equations. Mathematical Medicine and Biology, 2006, 23, 27-44.	0.8	13
45	Hydrodynamics and Mass Transport in Wall-Tube and Microjet Electrodes: An Experimental Evaluation of Current Theory. Journal of Physical Chemistry B, 2003, 107, 13649-13660.	1.2	12
46	Heterogeneous Kinetics of the Dissolution of an Inorganic Salt, Potassium Carbonate, in an Organic Solvent, Dimethylformamide. Journal of Physical Chemistry B, 2005, 109, 8263-8269.	1.2	12
47	An electrochemical study of the oxidation of 1,3,5-Tris[4-[(3-methylphenyl)phenylamino]phenyl]benzene. Journal of Electroanalytical Chemistry, 2004, 563, 191-202.	1.9	11
48	Reactions at the Solidâ^'Liquid Interface:Â Surface-Controlled Dissolution of Solid Particles. The Dissolution of Potassium Bicarbonate in Dimethylformamide. Journal of Physical Chemistry B, 2005, 109, 2862-2872.	1.2	11
49	Capacitive and Solution Resistance Effects on Voltammetric Responses at a Disk Microelectrode Covered with a Self-Assembled Monolayer in the Presence of Electron Hopping. Analytical Chemistry, 2009, 81, 8545-8556.	3.2	11
50	Finite element simulation of electrochemically reversible, quasi-reversible and irreversible linear sweep voltammetry at the wall tube electrode. Journal of Electroanalytical Chemistry, 2002, 531, 25-31.	1.9	10
51	The Electrochemically Initiated Reaction of Sulfide with N,N-Diethyl-p-phenylenediamine in Dimethylformamide. Part II: Implications for Sensing Strategies. Electroanalysis, 2003, 15, 961-968.	1.5	10
52	Electrochemical Determination of Flow Velocity Profile in a Microfluidic Channel from Steady-State Currents: Numerical Approach and Optimization of Electrode Layout. Analytical Chemistry, 2009, 81, 7667-7676.	3.2	10
53	Physics and flame morphology of supersonic spontaneously combusting hydrogen spouting into air. Renewable Energy, 2022, 196, 959-972.	4.3	10
54	Comparative solubilisation of potassium carbonate, sodium bicarbonate and sodium carbonate in hot dimethylformamide: application of cylindrical particle surface-controlled dissolution theory. Physical Chemistry Chemical Physics, 2006, 8, 633-641.	1.3	9

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55	Fast scan linear sweep voltammetry at a high-speed wall-tube electrode. Journal of Electroanalytical Chemistry, 2003, 557, 99-107.	1.9	8
56	Diffusion with Moving Boundary on Spherical Surfaces. ChemPhysChem, 2009, 10, 1593-1602.	1.0	8
57	Photoelectrochemistry of bromonitrobenzenes: mechanism and photoelectrochemically-induced halex reactions. Journal of Electroanalytical Chemistry, 2002, 533, 33-70.	1.9	7
58	Confocal Microscopy Imaging of Electrochemiluminescence at Double Band Microelectrode Assemblies: Numerical Solution of the Inverse Optical Problem. ChemPhysChem, 2007, 8, 1664-1676.	1.0	7
59	In Situ and On-Line Monitoring of Hydrodynamic Flow Profiles in Microfluidic Channels Based on Microelectrochemistry: Optimization of Channel Geometrical Parameters for Best Performance of Flow Profile Reconstruction. ChemPhysChem, 2007, 8, 1870-1874.	1.0	7
60	A new strategy for simulation of electrochemical mechanisms involving acute reaction fronts in solution under spherical or cylindrical diffusion. Russian Journal of Electrochemistry, 2012, 48, 593-599.	0.3	7
61	Theory of Longâ€Range Diffusion of Proteins on a Spherical Biological Membrane: Application to Protein Cluster Formation and Actinâ€Comet Tail Growth. ChemPhysChem, 2009, 10, 1586-1592.	1.0	6
62	Optimisation of ex vivo memory B cell expansion/differentiation for interrogation of rare peripheral memory B cell subset responses. Wellcome Open Research, 2017, 2, 97.	0.9	6
63	Electrochemical Determination of Sulfide at High Temperatures via Its Electrochemically Initiated Reaction with Diethyl-p-phenylenediamine in Dimethylformamide. Electroanalysis, 2004, 16, 337-344.	1.5	5
64	Experimental and Theoretical Study of the Surface-Controlled Dissolution of Cylindrical Particles. Application to Solubilization of Potassium Hydrogen Carbonate in Hot Dimethylformamide. Journal of Physical Chemistry B, 2005, 109, 20786-20793.	1.2	5
65	Balancing accuracy and complexity in optimisation models of distributed energy systems and microgrids with optimal power flow: A review. Sustainable Energy Technologies and Assessments, 2022, 52, 102066.	1.7	5
66	Replies to comments contained in â€œThe True History of Adaptive Grids in Electrochemical Simulationsâ€• by D. Britz [Electrochim. Acta 56 (2011) 4420â€“4421]. Electrochimica Acta, 2011, 56, 4422-4423.	2.6	4
67	Designing an Artificial Golgi reactor to achieve targeted glycosylation of monoclonal antibodies. AICHE Journal, 2016, 62, 2959-2973.	1.8	4
68	Theoretical Insights in ECL. , 2017, , 215-256.		3
69	Constrained Global Sensitivity Analysis: Sobolâ€™ indices for problems in non-rectangular domains. Computer Aided Chemical Engineering, 2017, , 151-156.	0.3	2
70	Global Sensitivity Analysis for Design and Operation of Distributed Energy Systems. Computer Aided Chemical Engineering, 2020, 48, 1519-1524.	0.3	2
71	Levels of Approximation for the Optimal Design of Distributed Energy Systems. Computer Aided Chemical Engineering, 2021, , 1403-1408.	0.3	2
72	Theory and computational study of electrophoretic ion separation and focusing in microfluidic channels. Nonlinear Analysis: Modelling and Control, 2012, 17, 431-447.	1.1	2

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73	Dull or bright you still get electric delight: A new approach to the design of all-weather panels. Computer Aided Chemical Engineering, 2018, , 211-216.	0.3	1
74	Numerical modelling of the interaction between eccrine sweat and textile fabric for the development of smart clothing. International Journal of Clothing Science and Technology, 2020, 32, 761-774.	0.5	1
75	In situ and Online Monitoring of Hydrodynamic Flow Profiles in Microfluidic Channels Based upon Microelectrochemistry: Optimization of Electrode Locations. ChemPhysChem, 2006, 7, 779-779.	1.0	0
76	Design Space Approximation with Gaussian Processes. Computer Aided Chemical Engineering, 2021, 50, 905-911.	0.3	0
77	Application of Machine Learning and Global Sensitivity Analysis for Identification and Visualization of Design Space. Computer Aided Chemical Engineering, 2021, 50, 875-881.	0.3	0