

Benjamin Scharifker

List of Publications by Year in descending order

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98
papers

6,480
citations

109137

35
h-index

62479

80
g-index

108
all docs

108
docs citations

108
times ranked

3549
citing authors

#	ARTICLE	IF	CITATIONS
1	Theoretical and experimental studies of multiple nucleation. <i>Electrochimica Acta</i> , 1983, 28, 879-889.	2.6	1,745
2	Electrochemical nucleation. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1982, 138, 225-239.	0.3	560
3	Three-dimensional nucleation with diffusion controlled growth. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1984, 177, 13-23.	0.3	550
4	Nucleation and diffusion-controlled growth of electroactive centers. <i>Electrochimica Acta</i> , 2005, 50, 4736-4745.	2.6	248
5	Electrochemical kinetics at microscopically small electrodes. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1981, 130, 81-97.	0.3	171
6	Diffusion to ensembles of microelectrodes. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1988, 240, 61-76.	0.3	151
7	Three-dimensional nucleation with diffusion controlled growth. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1984, 177, 25-37.	0.3	129
8	Ensembles of microelectrodes. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1982, 138, 65-77.	0.3	124
9	On the Theory of the Potentiostatic Current Transient for Diffusion-Controlled Three-Dimensional Electrocrystallization Processes. <i>Journal of the Electrochemical Society</i> , 1999, 146, 1005-1012.	1.3	115
10	In situ FTIR study of redox and overoxidation processes in polypyrrole films. <i>Journal of Electroanalytical Chemistry</i> , 2000, 491, 117-125.	1.9	114
11	Silver Electrocrystallization on Vitreous Carbon from Ammonium Hydroxide Solutions. <i>Journal of the Electrochemical Society</i> , 1996, 143, 1551-1558.	1.3	102
12	Electrodeposition and Electrochemical Behavior of Palladium Particles at Polyaniline and Polypyrrole Films. <i>Journal of the Electrochemical Society</i> , 1992, 139, 438-443.	1.3	99
13	The growth of polypyrrole films on electrodes. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1991, 300, 85-98.	0.3	88
14	Impedance spectroscopy of undoped, doped and overoxidized polypyrrole films. <i>Synthetic Metals</i> , 1997, 87, 179-185.	2.1	87
15	The formation and properties of single nuclei. <i>Electrochimica Acta</i> , 1983, 28, 891-898.	2.6	84
16	Competitive electrochemical oxidation of p-chlorophenol and p-nitrophenol on Bi-doped PbO ₂ . <i>Electrochimica Acta</i> , 2003, 48, 2775-2780.	2.6	79
17	Electrochemical nucleation. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1982, 138, 255-271.	0.3	75
18	Study of the oxidation of solutions of p-chlorophenol and p-nitrophenol on Bi-doped PbO ₂ electrodes by UV-Vis and FTIR in situ spectroscopy. <i>Electrochimica Acta</i> , 2004, 49, 641-648.	2.6	73

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19	Electrochemical adsorption and phase formation on mercury in sulphide ion solutions. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1981, 119, 73-91.	0.3	67
20	The Kinetics of Oxygen Reduction in Molten Phosphoric Acid at High Temperatures. Journal of the Electrochemical Society, 1987, 134, 2714-2725.	1.3	65
21	A comparison of the electrooxidation kinetics of p-methoxyphenol and p-nitrophenol on Sb-doped SnO ₂ surfaces: Concentration and temperature effects. Applied Catalysis B: Environmental, 2007, 72, 98-104.	10.8	63
22	Spatial distributions and saturation number densities of lead nuclei deposited on vitreous carbon electrodes. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 255.	1.7	61
23	The kinetics of mercury nucleation from Hg ²⁺ and Hg ₂ ²⁺ solutions on vitreous carbon electrodes. Journal of Electroanalytical Chemistry, 1999, 464, 39-47.	1.9	59
24	A Comparison of the Properties of $\text{CF}_3\text{SO}_3\text{H}$ and H_3PO_4 in Relation to Fuel Cells. Journal of Electrochemical Society, 1986, 133, 2262-2267.	1.3	58
25	Induction times for the formation of single mercury nuclei on a platinum microelectrode. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1981, 130, 99-112.	0.3	54
26	A potentiostatic study of the electrochemical nucleation of silver on vitreous carbon. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1982, 132, 277-289.	0.3	46
27	The nucleation and growth of two-dimensional anodic films under galvanostatic conditions. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1981, 124, 247-262.	0.3	44
28	Phase formation phenomena during electrodeposition of benzyl and heptyl viologen bromides. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1985, 185, 93-108.	0.3	44
29	Products in solution during electrodeposition of polypyrrole. Journal of Electroanalytical Chemistry, 1993, 357, 273-287.	1.9	43
30	Electrochemical nucleation. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1985, 184, 371-389.	0.3	42
31	On the spatial distribution of nuclei on electrode surfaces. Electrochimica Acta, 1992, 37, 2503-2510.	2.6	42
32	Silver electrocrystallization from a nonpolluting aqueous leaching solution containing ammonia and chloride. Journal of Applied Electrochemistry, 1996, 26, 451.	1.5	40
33	The nucleation of lead from halide-containing solutions. Journal of Applied Electrochemistry, 1986, 16, 333-338.	1.5	39
34	Electrochemical nucleation and the classical theory: Overpotential and temperature dependence of the nucleation rate. Russian Journal of Electrochemistry, 2008, 44, 652-658.	0.3	39
35	Current transient study of the kinetics of nucleation and diffusion-controlled growth of bimetallic phases. Journal of Solid State Electrochemistry, 2013, 17, 345-351.	1.2	38
36	Three-dimensional nucleation with diffusion controlled growth: A comparative study of electrochemical phase formation from aqueous and deep eutectic solvents. Journal of Electroanalytical Chemistry, 2017, 793, 119-125.	1.9	37

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37	Changes in the population of neutral species and charge carriers during electrochemical oxidation of polypyrrole. <i>Journal of Electroanalytical Chemistry</i> , 1996, 401, 207-214.	1.9	36
38	Photocatalysis and photoelectrochemical glucose oxidation on Bi ₂ WO ₆ : Conditions for the concomitant H ₂ production. <i>Renewable Energy</i> , 2020, 152, 974-983.	4.3	36
39	The role of intermediates in solution in the initial stages of electrodeposition of polypyrrole. <i>Journal of Electroanalytical Chemistry</i> , 1994, 365, 35-39.	1.9	34
40	Direct microcalorimetric measurement of doping and overoxidation processes in polypyrrole. <i>Electrochimica Acta</i> , 1997, 42, 291-301.	2.6	34
41	Spatial distribution of nuclei inhibition of local nucleation rates by the most influential neighbours. <i>Journal of Electroanalytical Chemistry</i> , 1998, 441, 13-18.	1.9	33
42	Electroreduction of chloroacetic acids (mono-, di- and tri-) at polyNi(II)-tetrasulfonated phthalocyanine gold modified electrode. <i>Sensors and Actuators B: Chemical</i> , 2010, 146, 103-110.	4.0	33
43	Characterization of a carbon paste electrode modified with tripolyphosphate-modified kaolinite clay for the detection of lead. <i>Talanta</i> , 2011, 85, 1357-1363.	2.9	33
44	Adsorbed Hydrogen on Iron in the Electrochemical Reduction of Protons: An FTIR Study. <i>Journal of the Electrochemical Society</i> , 1987, 134, 1957-1963.	1.3	32
45	On the underpotential-overpotential transition in the deposition of silver on platinum. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1989, 274, 167-178.	0.3	31
46	Electrocrystallization of copper sulphide (Cu ₂ S) on copper. <i>Electrochimica Acta</i> , 1984, 29, 261-266.	2.6	30
47	Three-dimensional nucleation with diffusion-controlled growth: Simulation of hierarchical diffusion zones overlap. <i>Journal of Electroanalytical Chemistry</i> , 2009, 631, 22-28.	1.9	29
48	Electrochemical oxidation of dichlorvos on SnO ₂ Sb ₂ O ₅ electrodes. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 107-111.	10.8	29
49	Electrochemical oxygen transfer reactions: electrode materials, surface processes, kinetic models, linear free energy correlations, and perspectives. <i>Journal of Solid State Electrochemistry</i> , 2016, 20, 875-893.	1.2	28
50	Oxidation of formate on hydrogen-loaded palladium. <i>International Journal of Hydrogen Energy</i> , 2002, 27, 99-105.	3.8	25
51	Modeling the Growth of Nanowire Arrays in Porous Membrane Templates. <i>Journal of the Electrochemical Society</i> , 2014, 161, E3341-E3347.	1.3	25
52	Upgrading of Orinoco Belt crude oil and its fractions by an electrochemical system in the presence of protonating agents. <i>Fuel Processing Technology</i> , 1996, 48, 159-172.	3.7	24
53	Diffusion controlled growth of hemispheres in ordered arrays. <i>Journal of Electroanalytical Chemistry</i> , 1998, 458, 253-255.	1.9	24
54	Effect of temperature on the formation of two dimensional sulphide phases on mercury. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1985, 190, 199-212.	0.3	22

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55	Oxidation of p-methoxyphenol on SnO ₂ –Sb ₂ O ₅ electrodes: Effects of electrode potential and concentration on the mineralization efficiency. <i>Journal of Applied Electrochemistry</i> , 2006, 36, 433-439.	1.5	22
56	A rotating disk study of the photocatalytic oxidation of p-nitrophenol on phosphorus-modified TiO ₂ photocatalyst. <i>Applied Catalysis B: Environmental</i> , 2015, 166-167, 529-534.	10.8	22
57	Nucleation on active sites. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1984, 164, 1-9.	0.3	21
58	Electrooxidation of Aqueous p-Methoxyphenol on Lead Oxide Electrodes. <i>Journal of Applied Electrochemistry</i> , 2004, 34, 583-589.	1.5	21
59	Concentration and potential dependence of the adsorption of thiourea and thiocyanate on iron surfaces. <i>Electrochimica Acta</i> , 1987, 32, 799-809.	2.6	20
60	Oxidation of CO on hydrogen-loaded palladium. <i>Journal of Applied Electrochemistry</i> , 1999, 29, 1185-1190.	1.5	20
61	On the diffusional impedance of microdisc electrodes. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1988, 256, 229-233.	0.3	19
62	Reduction of Carbon Dioxide on Modified Glassy Carbon Electrodes. <i>Journal of the Electrochemical Society</i> , 1999, 146, 4131-4136.	1.3	19
63	Kinetics of surface reactions on rotating disk electrodes. <i>Electrochimica Acta</i> , 2012, 80, 326-333.	2.6	19
64	Chemical kinetics in solar to chemical energy conversion: The photoelectrochemical oxygen transfer reaction. <i>Energy Reports</i> , 2020, 6, 2-12.	2.5	19
65	Electrodeposition of lead sulphide. <i>Electrochimica Acta</i> , 1985, 30, 677-682.	2.6	18
66	Spatial distribution of electrodeposited lead nuclei on to vitreous carbon beyond their nearest neighbours. <i>Journal of Electroanalytical Chemistry</i> , 1995, 383, 37-41.	1.9	17
67	The current transient for nucleation and diffusion-controlled growth of spherical caps. <i>Journal of Solid State Electrochemistry</i> , 2009, 13, 565-571.	1.2	17
68	Electrochemical nucleation and growth of black and white chromium deposits onto stainless steel surfaces. <i>Journal of Electroanalytical Chemistry</i> , 2010, 647, 128-132.	1.9	16
69	A novel nickel nanowire amperometric sensor: Direct current vs. alternating current strategies for ethanol, acetaldehyde and acetylcholine detection. <i>Journal of Electroanalytical Chemistry</i> , 2015, 740, 61-67.	1.9	16
70	Catalytic reduction of nitrate during electrodeposition of thallium from Tl ³⁺ solution. <i>Electrochemistry Communications</i> , 2000, 2, 448-451.	2.3	15
71	Microelectrode Techniques in Electrochemistry. <i>Modern Aspects of Electrochemistry</i> , 1992, , 467-519.	0.2	14
72	Adsorption of borate ions on passive iron: An in-situ SNIFTIRS-FTIRRAS study. <i>Surface Science</i> , 1986, 173, 97-105.	0.8	12

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73	Kinetic study of the electrochemical mineralization of phenols in thin-layer condition. <i>Electrochimica Acta</i> , 2010, 55, 6501-6506.	2.6	12
74	Measurement of phenols dearomatization via electrolysis: The UV-Vis solid phase extraction method. <i>Water Research</i> , 2010, 44, 911-917.	5.3	12
75	Electrochemical formation of copper phosphide from aqueous solutions of Cu(II) and hypophosphite ions. <i>Electrochimica Acta</i> , 2020, 354, 136705.	2.6	12
76	The transport properties of oxygen in aqueous borate solutions. <i>Electrochimica Acta</i> , 1987, 32, 1553-1555.	2.6	10
77	Direct confirmation that FTIR studies of electrodes bear only surface information. <i>Electrochimica Acta</i> , 1988, 33, 159-160.	2.6	9
78	Mechanistic pathways during oxidation of cyanate on platinum single crystal faces. <i>Electrochimica Acta</i> , 2005, 50, 1423-1429.	2.6	9
79	Nucleation kinetics and contact angles of silver clusters electrodeposited on indium tin oxide surfaces. <i>Journal of Electroanalytical Chemistry</i> , 2016, 765, 140-148.	1.9	9
80	High-Field Growth of Semiconducting Anodic Oxide Films on Metal Surfaces for Photocatalytic Application. <i>International Journal of Photoenergy</i> , 2019, 2019, 1-15.	1.4	8
81	Unraveling Kinetic Effects during Photoelectrochemical Mineralization of Phenols. Rutile:Anatase TiO ₂ Nanotube Photoanodes under Thin-Layer Conditions. <i>Journal of Physical Chemistry C</i> , 2021, 125, 610-617.	1.5	6
82	Study on the Influence of Chloride Concentration on Copper Electrodeposition. <i>ECS Transactions</i> , 2006, 3, 25-34.	0.3	4
83	Analysis of the Copper Electrodeposition Current Transients in Nitrates Media. <i>ECS Transactions</i> , 2009, 20, 357-364.	0.3	3
84	Characterization of Kaolin Glassy Carbon Modified Electrodes: Preconcentration of 2-Chlorophenol. <i>Electroanalysis</i> , 2009, 21, 1354-1362.	1.5	3
85	Dispatches from a world in turmoil. <i>Nature</i> , 2019, 576, 382-384.	13.7	2
86	Ensembles of Microelectrodes. , 1991, , 227-239.		2
87	Scientists and the Venezuelan Crisis. <i>Science</i> , 2003, 299, 1184a-1184.	6.0	1
88	On the Initial Stages of Electrooxidation of Aqueous Maleic Acid on Bi-Doped PbO ₂ . <i>Electroanalysis</i> , 2007, 19, 1628-1634.	1.5	1
89	On the Model Describing Potentiostatic Current Transients Recorded during the Mass Transport-controlled Nucleation of Hemispheres in the Presence of Forced Convection. <i>Procedia Chemistry</i> , 2014, 12, 27-33.	0.7	1
90	Science struggles on in my ravaged country. <i>Nature</i> , 2017, 545, 135-135.	13.7	1

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91	Reduction of Nitrate Ion on the Growing Surfaces of Cr Nuclei Formed During Black Chromium Electrodeposition. ECS Transactions, 2006, 3, 137-146.	0.3	0
92	Gathering Kinetic Data of Electrochemical Phase Formation Processes Through Analysis of Experimental Current Transients. Overview and New Approaches. ECS Transactions, 2007, 3, 45-52.	0.3	0
93	Consistency of the Classical Theory of Nucleation with Nanometric Phenomena: A Comparison from Overpotential and Temperature Studies. ECS Transactions, 2007, 3, 53-63.	0.3	0
94	Electrodeposition Under Forced Convection Conditions. ECS Transactions, 2006, 3, 117-125.	0.3	0
95	Venezuelan students are campaigning for freedom. Nature, 2008, 451, 395-395.	13.7	0
96	Electrochemical Characterization of Nitrate Reduction on Recently Deposited Cooper Nuclei. ECS Transactions, 2008, 15, 371-381.	0.3	0
97	Electroanalytic Study of Nitrates Detection using Cooper and Glassy Carbon Electrodes Modified with Copper Nuclei. ECS Transactions, 2008, 15, 555-561.	0.3	0
98	A Mechanism for the Prebiotic Emergence of Proteins. Cellular Origin and Life in Extreme Habitats, 2004, , 83-87.	0.3	0