Dieter Britz

List of Publications by Year
in descending order

39 papers	655 citations	687363 13 h-index	580821 25 g-index
43 all docs	43 docs citations	43 times ranked	350 citing authors

#	Article	IF	Citations
1	Investigation of the relative merits of some n-point current approximations in digital simulation. Analytica Chimica Acta, 1987, 193, 277-285.	5.4	55
2	Digital Simulation in Electrochemistry. Monographs in Electrochemistry, 2016, , .	0.2	47
3	Ketone Body Acetoacetate Buffers Methylglyoxal via a Non-enzymatic Conversion during Diabetic and Dietary Ketosis. Cell Chemical Biology, 2017, 24, 935-943.e7.	5.2	32
4	Brute force digital simulation. Journal of Electroanalytical Chemistry, 1996, 406, 15-21.	3.8	27
5	Reference values of the chronoamperometric response at cylindrical and capped cylindrical electrodes. Electrochimica Acta, 2010, 55, 5629-5635.	5.2	25
6	Numerical stability of finite difference algorithms for electrochemical kinetic simulations: Matrix stability analysis of the classic explicit, fully implicit and Crank-Nicolson methods and typical problems involving mixed boundary conditions. Computers & Chemistry, 1995, 19, 121-136.	1.2	24
7	Some numerical investigations of the stability of electrochemical digital simulation, particularly as affected by first-order homogeneous reactions. Journal of Electroanalytical Chemistry, 1994, 368, 143-147.	3.8	23
8	Minimum grid digital simulation of chronoamperometry at a disk electrode. Electrochimica Acta, 2012, 78, 365-376.	5.2	21
9	Several ways to simulate time dependent liquid junction potentials by finite differences. Electrochimica Acta, 2014, 137, 328-335.	5.2	19
10	Electrochemical kinetic simulations of mixed diffusion/homogeneous reaction problems by the Saul'yev finite difference algorithms. Analytica Chimica Acta, 1993, 278, 59-70.	5.4	16
11	Numerical stability of the Saul'yev finite difference algorithms for electrochemical kinetic simulations: Matrix stability analysis for an example problem involving mixed boundary conditions. Computers & Chemistry, 1995, 19, 357-370.	1.2	14
12	The effect of the discretization of the mixed boundary conditions on the numerical stability of the Crank-Nicolson algorithm of electrochemical kinetic simulations. Computers & Chemistry, 1997, 21, 391-401.	1.2	14
13	Digital simulation of thermal reactions. Applied Mathematics and Computation, 2011, 218, 1280-1290.	2.2	14
14	Digital simulation of chronoamperometry at a disk electrode under a flat polymer film containing an enzyme. Electrochimica Acta, 2015, 152, 302-307.	5.2	13
15	Numerical stability of finite difference algorithms for electrochemical kinetic simulations. Matrix stability analysis of the classic explicit, fully implicit and Crank-Nicolson methods, extended to the 3- and 4-point gradient approximation at the electrodes. Computers & Chemistry, 1995, 19, 351-355.	1.2	12
16	Diffusion-limited chronoamperometry at conical-tip microelectrodes. Electrochimica Acta, 2010, 55, 1272-1277.	5.2	11
17	Strategies for damping the oscillations of the alternating direction implicit method of simulation of diffusion-limited chronoamperometry at disk electrodes. Electrochimica Acta, 2009, 54, 4822-4828.	5.2	9
18	The Higher Weight Enumerators of the Doubly-Even, Self-Dual $[48, 24, 12]$ Code. IEEE Transactions on Information Theory, 2007, 53, 2567-2571.	2.4	8

#	Article	IF	Citations
19	Electrochemical digital simulation: re-evaluation of the crank-nicolson scheme. Analytica Chimica Acta, 1987, 194, 317-322.	5.4	7
20	Revisiting rectangular electrodes; a simulation study. Electrochimica Acta, 2020, 338, 135728.	5.2	7
21	Accuracy contours in (nT, Î») space in electrochemical digital simulations. Collection of Czechoslovak Chemical Communications, 1991, 56, 20-41.	1.0	6
22	The true history of adaptive grids in electrochemical simulation. Electrochimica Acta, 2011, 56, 4420-4421.	5.2	6
23	An interesting global stabilisation of a locally short-range unstable high-order scheme for the digital simulation of the diffusion equation. Computers and Chemical Engineering, 1999, 23, 297-300.	3.8	5
24	Digital simulation of chronoamperometry at an electrode within a hemispherical polymer drop containing an enzyme: Comparison of a hemispherical with a flat disk electrode. Biosensors and Bioelectronics, 2013, 50, 269-277.	10.1	5
25	Surface concentration nonuniformities resulting from chronoamperometry of a reversible reaction at an ultramicrodisk electrode. Journal of Electroanalytical Chemistry, 2016, 776, 202-205.	3.8	2
26	Use of the Saulâ€™yev method for the digital simulation of chronoamperometry and linear sweep voltammetry at the ultramicrodisk electrode. Electrochimica Acta, 2017, 258, 17-23.	5.2	2
27	Use of the Saul'yev method for the digital simulation of chronoamperometry at the disk electrode, in the presence of homogeneous chemical reactions. Electrochimica Acta, 2018, 283, 300-305.	5.2	2
28	Rectangular electrodes: Simulation of accurate steady state currents and the behaviour of square electrode arrays. Electrochimica Acta, 2022, 404, 139750.	5.2	2
29	Unequal Intervals. Monographs in Electrochemistry, 2016, , 123-144.	0.2	1
30	A matter of degree. Nature, 1994, 372, 214-214.	27.8	0
31	Two (and Three) Dimensions. Monographs in Electrochemistry, 2016, , 251-337.	0.2	0
32	Migrational Effects. Monographs in Electrochemistry, 2016, , 339-367.	0.2	0
33	Boundary Conditions. Monographs in Electrochemistry, 2016, , 101-121.	0.2	0
34	The Commonly Used Implicit Methods. Monographs in Electrochemistry, 2016, , 145-176.	0.2	0
35	Other Methods. Monographs in Electrochemistry, 2016, , 177-234.	0.2	0
36	Basic Equations. Monographs in Electrochemistry, 2016, , 5-37.	0.2	0

#	Article	IF	Citations
37	Approximations to Derivatives. Monographs in Electrochemistry, 2016, , 39-59.	0.2	0
38	Comment on â€œAtmospheric chemistry of iodine anions: elementary reactions of Iâˆ', IOâˆ' and IO2âˆ' with ozone studied in the gas-phase at 300 K using an ion trapâ€•Teiwes et al., Phys. Chem. Chem. Phys., 2018, 20, 20608. Physical Chemistry Chemical Physics, 2019, 21, 22654-22655.	2.8	0
39	Numerical Convergence Analysis of the Frankâ€"Kamenetskii Equation. Entropy, 2020, 22, 84.	2.2	0