# LesÅaw K Bieniasz

List of Publications by Year
in descending order

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| 132 | 1,817 | 257101 | 433756 |
|---|---|---|---|
| papers | citations | 24 h-index | 31 g-index |

| 146 | 146 | 146 | 318 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Singular transients in the presence of homogeneous reactions at cylindrical wire electrodes: Simulation by the adaptive Huber method for integral equations. Journal of Electroanalytical Chemistry, 2022, 907, 116027. | 1.9 | 2 |
| 2 | A generalized Jaeger <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e147" altimg="si4.svg"><mml:mrow><mml:mi>â„</mml:mi><mml:mrow><mml:mo>(</mml:mo><mml:mn>0</mml:mn><mml:mo>,</mml:mo> integral, resulting from mathematical modelling in electroanalytical chemistry. Journal of Computational and Applied Mathematics, 2022, 407, 114090. | 1.1 | 1 |
| 3 | Chronoamperometry for reversible charge transfers at cylindrical wire electrodes: Theory for DOÂâ‰ÂDR, and a highly accurate computation of the current. Journal of Electroanalytical Chemistry, 2021, 880, 114650. | 1.9 | 4 |
| 4 | Catalytic ErevCrevâ€² mechanism at cylindrical wire electrodes: Theory of controlled-potential transients assuming DOÂ=ÂDR, and highly accurate computation of chronoamperograms and cyclic voltammograms. Journal of Electroanalytical Chemistry, 2021, 882, 114980. | 1.9 | 4 |
| 5 | Theory of chronoamperometry for the catalytic EC<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si25.svg"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">E</mml:mi></mml:mrow><mml:mrow><mml:mi mathvariant="normal">rev</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mrow><mml:mi | 1.9 | 4 |
| 6 | A NonLinear Transient Reaction-Diffusion Problem from Electroanalytical Chemistry. SIAM Journal on Applied Mathematics, 2021, 81, 208-232. | 0.8 | 3 |
| 7 | Integral equation-based simulation of transient electroanalytical experiments at spherical electrodes, for the catalytic ECâ€™ mechanism with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:msub><mml:mrow><mml:mi>D</mml:mi></mml:mrow><mml:mrow><mml:mtext>O</mml:mtext> linebreak="goodbreak" linebreakstyle="after">â‰</mml:mo><mml:msub><mml:mrow><mml:mi>D</mml:mi></mml:mrow><mml:mrow><mml:mtext>R</mml:mtext> Electrochimica Acta, 2019, 317, 795-807. | 2.6 | 1 |
| 8 | Utility of super-time-stepping for electroanalytical digital simulations by explicit finite difference methods. Part 2: Spatially two- and three-dimensional models. Journal of Electroanalytical Chemistry, 2019, 838, 204-211. | 1.9 | 1 |
| 9 | Theory of chronoamperometry for the catalytic ECâ€² mechanism at a band electrode: Highly accurate and efficient computation of the Faradaic currents. Journal of Electroanalytical Chemistry, 2019, 841, 158-165. | 1.9 | 4 |
| 10 | Highly accurate and inexpensive procedures for computing chronoamperometric currents for the catalytic EC' reaction mechanism at an inlaid disk electrode. Electrochimica Acta, 2019, 298, 924-933. | 2.6 | 9 |
| 11 | A reliable automatic simulation of singular transients by the adaptive Huber method: The case of homogeneous reactions at planar and spherical electrodes. Electrochimica Acta, 2019, 297, 463-478. | 2.6 | 4 |
| 12 | A Solution Mapping Technique for the Rapid Computation of Theoretical Cyclic Voltammograms for Experimental Data Analysis in Electrochemical Kinetics. , 2019, , 54-57. | | 0 |
| 13 | Development of an Adaptive Finite-Difference Strategy for the Automatic Simulation of Transient Experiments in Electrochemical Kinetics. , 2019, , 50-53. | | 0 |
| 14 | A new theory and automatic computation of reversible cyclic voltammograms at an inlaid disk electrode. Electrochimica Acta, 2018, 264, 410-420. | 2.6 | 5 |
| 15 | Corrigendum to â€œHighly accurate, efficient, and automatic computation of reversible cyclic voltammograms, using double exponential formulas for numerical integrationâ€•[J. Electroanal. Chem. 808 (2018) 195â€“203]. Journal of Electroanalytical Chemistry, 2018, 818, 270. | 1.9 | 0 |
| 16 | Utility of super-time-stepping for electroanalytical digital simulations by explicit finite difference methods. Part 1: Spatially one-dimensional models. Journal of Electroanalytical Chemistry, 2018, 815, 210-219. | 1.9 | 1 |
| 17 | Highly accurate, inexpensive procedures for computing chronoamperometric current, integral transformation kernel, and related integrals, for an inlaid disk electrode. Electrochimica Acta, 2018, 259, 1068-1080. | 2.6 | 12 |
| 18 | Highly accurate, efficient, and automatic computation of reversible cyclic voltammograms, using double exponential formulas for numerical integration. Journal of Electroanalytical Chemistry, 2018, 808, 195-203. | 1.9 | 13 |

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| 19 | An adaptive Huber method for nonlinear systems of Volterra integral equations with weakly singular kernels and solutions. Journal of Computational and Applied Mathematics, 2017, 323, 136-146. | 1.1 | 9 |
| 20 | A reliable automatic simulation of singular electroanalytical transients, by the adaptive Huber method for Volterra integral equations. Journal of Electroanalytical Chemistry, 2017, 799, 40-52. | 1.9 | 8 |
| 21 | A New Theory of Potential Step Chronoamperometry at Hemispheroidal Electrodes: Complete Explicit Semi-Analytical Formulae for the Faradaic Current Density and the Faradaic Current. Journal of Electroanalytical Chemistry, 2017, 784, 91-101. | 1.9 | 3 |
| 22 | SSE-based Thomas algorithm for quasi-block-tridiagonal linear equation systems, optimized for small dense blocks. AIP Conference Proceedings, 2017, , . | 0.3 | 0 |
| 23 | A specialised cyclic reduction algorithm for linear algebraic equation systems with quasi-tridiagonal matrices. Journal of Mathematical Chemistry, 2017, 55, 1793-1807. | 0.7 | 11 |
| 24 | A New Theory of Potential Step Chronoamperometry at a Microdisk Electrode: Complete Explicit Semi-Analytical Formulae for the Faradaic Current Density and the Faradaic Current. Electrochimica Acta, 2016, 199, 1-11. | 2.6 | 16 |
| 25 | Accelerated Thomas Solver for (Quasi-)Block-Tridiagonal Linear Algebraic Equation Systems, Using SSE/AVX Instruction Sets for Vectorizing Dense Block Operations. International Journal of Computational Methods, 2016, 13, 1750027. | 0.8 | 1 |
| 26 | An adaptive multicut-HDMR map generation. AIP Conference Proceedings, 2016, , . | 0.3 | 0 |
| 27 | Highly accurate, inexpensive procedures for computing theoretical chronoamperometric currents at single straight electrode edges and at single microband electrodes. Journal of Electroanalytical Chemistry, 2016, 760, 71-79. | 1.9 | 15 |
| 28 | A new theory, and automatic computation of reversible cyclic voltammograms at a microband electrode. Journal of Electroanalytical Chemistry, 2016, 767, 123-133. | 1.9 | 8 |
| 29 | A Fifth (Six) Order Accurate, Three-Point Compact Finite Difference Scheme for the Numerical Solution of Sixth Order Boundary Value Problems on Geometric Meshes. Journal of Scientific Computing, 2015, 64, 898-913. | 1.1 | 6 |
| 30 | Experiments with an adaptive multicut-HDMR map generation for slowly varying continuous multivariate functions. Applied Mathematics and Computation, 2015, 258, 206-219. | 1.4 | 5 |
| 31 | Theory of Potential Step Chronoamperometry at a Microband Electrode: Complete Explicit Semi-Analytical Formulae for the Faradaic Current Density and the Faradaic Current. Electrochimica Acta, 2015, 178, 25-33. | 2.6 | 14 |
| 32 | Numerical Solution Methods. Monographs in Electrochemistry, 2015, , 269-304. | 0.2 | 2 |
| 33 | Basic Assumptions and Equations of Electroanalytical Models. Monographs in Electrochemistry, 2015, , 9-47. | 0.2 | 0 |
| 34 | Models Independent of Spatial Coordinates. Monographs in Electrochemistry, 2015, , 61-78. | 0.2 | 0 |
| 35 | Models Involving Two- and Three-Dimensional Diffusion. Monographs in Electrochemistry, 2015, , 143-155. | 0.2 | 0 |
| 36 | Models Involving Additional Complications. Monographs in Electrochemistry, 2015, , 233-247. | 0.2 | 0 |

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| 37 | Models Involving Transport Coupled with Homogeneous Reactions. Monographs in Electrochemistry, 2015, , 157-197. | 0.2 | 0 |
| 38 | Models Involving Distributed and Localised Species. Monographs in Electrochemistry, 2015, , 199-232. | 0.2 | 0 |
| 39 | Analytical Expressions for the Steady-State Concentrations of Glucose, Oxygen and Gluconic Acid in a Composite Membrane for Closed-Loop Insulin Delivery. Journal of Membrane Biology, 2013, 246, 121-129. | 1.0 | 9 |
| 40 | Automatic solution of integral equations describing electrochemical transients under conditions of internal spherical diffusion. Journal of Electroanalytical Chemistry, 2013, 694, 104-113. | 1.9 | 11 |
| 41 | Automatic solution of the Singh and Dutt integral equations for channel or tubular electrodes, by the adaptive Huber method. Journal of Electroanalytical Chemistry, 2013, 693, 95-104. | 1.9 | 10 |
| 42 | Automatic solution of integral equations describing electrochemical transients under conditions of internal cylindrical diffusion. Journal of Electroanalytical Chemistry, 2013, 700, 30-39. | 1.9 | 10 |
| 43 | Automatic solution of integral equations describing electrochemical transients at dropping mercury electrodes. Journal of Electroanalytical Chemistry, 2013, 705, 44-51. | 1.9 | 8 |
| 44 | A procedure for rapid and highly accurate computation of Marcusâ€“Hushâ€“Chidsey rate constants. Journal of Electroanalytical Chemistry, 2012, 683, 112-118. | 1.9 | 9 |
| 45 | Automatic simulation of electrochemical transients assuming finite diffusion space at planar interfaces, by the adaptive Huber method for Volterra integral equations. Journal of Electroanalytical Chemistry, 2012, 684, 20-31. | 1.9 | 13 |
| 46 | Automatic simulation of electrochemical transients by the adaptive Huber method for Volterra integral equations involving Kernel terms exp[â^'Î±(t â^' Ï„)]erex{[Î²(t â^' Ï„)]1/2} and exp[â^'Î±(t â^' Ï„)]daw {[Î²(t â^'ϑ,,)]1/2}. Journal of Mathematical Chemistry, 2012, 50, 765-781. | 1.9 | 13 |
| 47 | Automatic solution of integral equations pertinent to diffusion with first order homogeneous reactions at cylindrical wire electrodes. Journal of Electroanalytical Chemistry, 2012, 674, 38-47. | 1.9 | 19 |
| 48 | A highly accurate, inexpensive procedure for computing integral transformation kernel and its moment integrals for cylindrical wire electrodes. Journal of Electroanalytical Chemistry, 2011, 661, 280-286. | 1.9 | 18 |
| 49 | Automatic simulation of electrochemical transients at cylindrical wire electrodes, by the adaptive Huber method for Volterra integral equations. Journal of Electroanalytical Chemistry, 2011, 662, 371-378. | 1.9 | 22 |
| 50 | Analysis of the applicability of the integral equation method in the theory of transient electroanalytical experiments for homogeneous reactionâ€“diffusion systems: The case of planar electrodes. Journal of Electroanalytical Chemistry, 2011, 657, 91-97. | 1.9 | 12 |
| 51 | Extension of the Adaptive Huber Method for Solving Integral Equations Occurring in Electroanalysis, onto Kernel Function Representing Fractional Diffusion. Electroanalysis, 2011, 23, 1506-1511. | 1.5 | 12 |
| 52 | An adaptive Huber method for non-linear systems of weakly singular second kind Volterra integral equations. Applied Mathematics and Computation, 2011, 217, 5622-5631. | 1.4 | 25 |
| 53 | A highly accurate, inexpensive procedure for computing theoretical chronoamperometric current at cylindrical wire electrodes. Electrochimica Acta, 2011, 56, 6982-6988. | 2.6 | 17 |
| 54 | Extension of the adaptive Huber method for Volterra integral equations arising in electroanalytical chemistry, to convolution kernels exp [â^'Î± (t-Ï„)] erex {[Î²(t-Ï„)]1/2} and exp [â^'Î±(t-Ï„)] daw {[Î²(t-Ï„)]1/2}. Journal of Computational Methods in Sciences and Engineering, 2011, 11, 323-338. | | 5 |

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| 55 | An adaptive Huber method for weakly singular second kind Volterra integral equations with non-linear dependencies between unknowns and their integrals. Computing (Vienna/New York), 2010, 87, 35-54. | 3.2 | 29 |
| 56 | Automatic simulation of cyclic voltammograms by the adaptive Huber method for systems of weakly singular Volterra integral equations. Journal of Electroanalytical Chemistry, 2010, 642, 127-134. | 1.9 | 22 |
| 57 | Value of the exponential currentâ€“time perturbation for achieving stationary polarisation curves at planar and spherical electrodes of any size. Electrochimica Acta, 2010, 55, 9010-9018. | 2.6 | 1 |
| 58 | Automatic simulation of cyclic voltammograms by the adaptive Huber method for weakly singular second kind Volterra integral equations. Electrochimica Acta, 2010, 55, 721-728. | 2.6 | 25 |
| 59 | Theory of linear sweep/cyclic voltammetry for the electrochemical reaction mechanism involving a redox catalyst couple attached to a spherical electrode. Electrochimica Acta, 2010, 56, 543-552. | 2.6 | 15 |
| 60 | Electrocatalysis at Modified Microelectrodes: A Theoretical Approach to Cyclic Voltammetry. Journal of Physical Chemistry C, 2010, 114, 14542-14551. | 1.5 | 11 |
| 61 | An adaptive Huber method with local error control, for the numerical solution of the first kind Abel integral equations. Computing (Vienna/New York), 2008, 83, 25-39. | 3.2 | 35 |
| 62 | Initialisation of the adaptive Huber method for solving the first kind Abel integral equation. Computing (Vienna/New York), 2008, 83, 163-174. | 3.2 | 25 |
| 63 | Experiments with a local adaptive grid h-refinement for the finite-difference solution of BVPs in singularly perturbed second-order ODEs. Applied Mathematics and Computation, 2008, 195, 196-219. | 1.4 | 7 |
| 64 | Adaptive solution of BVPs in singularly perturbed second-order ODEs, by the extended Numerov method combined with an iterative local grid h-refinement. Applied Mathematics and Computation, 2008, 198, 665-682. | 1.4 | 6 |
| 65 | Cyclic Voltammetric Current Functions Determined with a Prescribed Accuracy by the Adaptive Huber Method for Abel Integral Equations. Analytical Chemistry, 2008, 80, 9659-9665. | 3.2 | 26 |
| 66 | Two new compact finite-difference schemes for the solution of boundary value problems in second-order non-linear ordinary differential equations, using non-uniform grids. Journal of Computational Methods in Sciences and Engineering, 2008, 8, 3-18. | 0.1 | 4 |
| 67 | A Unifying View of Computational Electrochemistry. AIP Conference Proceedings, 2007, , . | 0.3 | 2 |
| 68 | Preface: International Symposium on Computational Electrochemistry. AIP Conference Proceedings, 2007, , . | 0.3 | 0 |
| 69 | A fourth-order accurate, three-point compact approximation of the boundary gradient, for electrochemical kinetic simulations by the extended Numerov method. Electrochimica Acta, 2007, 52, 2203-2209. | 2.6 | 11 |
| 70 | A set of compact finite-difference approximations to first and second derivatives, related to the extended Numerov method of Chawla on nonuniform grids. Computing (Vienna/New York), 2007, 81, 77-89. | 3.2 | 9 |
| 71 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Electrochimica Acta, 2007, 52, 3929-3940. | 2.6 | 12 |
| 72 | High-Dimensional Model Representation of Cyclic Voltammograms. Analytical Chemistry, 2006, 78, 1807-1816. | 3.2 | 7 |

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| 73 | Extraction of Parameters and Their Error Distributions from Cyclic Voltammograms Using Bootstrap Resampling Enhanced by Solution Maps:Â Computational Study. Analytical Chemistry, 2006, 78, 8430-8437. | 3.2 | 19 |
| 74 | A singularity correction procedure for digital simulation of potential-step chronoamperometric transients in one-dimensional homogeneous reactionâ€“diffusion systems. Electrochimica Acta, 2005, 50, 3253-3261. | 2.6 | 8 |
| 75 | Improving the accuracy of the spatial discretization in finite-difference electrochemical kinetic simulations, by means of the extended Numerov method. Journal of Computational Chemistry, 2004, 25, 1075-1083. | 1.5 | 16 |
| 76 | A fourth-order accurate, Numerov-type, three-point finite-difference discretization of electrochemical reaction-diffusion equations on nonuniform (exponentially expanding) spatial grids in one-dimensional space geometry. Journal of Computational Chemistry, 2004, 25, 1515-1521. | 1.5 | 9 |
| 77 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Part 15: patch-adaptive simulation of example transient experiments described by Nernstâ€“Planckâ€“electroneutrality equations in one-dimensional space geometry. Journal of Electroanalytical Chemistry, 2004, 565, 273-285. | 1.9 | 18 |
| 78 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Part 14: extension of the patch-adaptive strategy to time-dependent models involving migrationâ€“diffusion transport in one-dimensional space geometry, and its application to example transient experiments described by Nernstâ€“Planckâ€“Poisson equations. Journal of Electroanalytical Chemistry, 2004, 565, 251-271. | 1.9 | 13 |
| 79 | Comments on the paper by M. Rudolph, entitled â€œDigital simulations on unequally spaced grids. Part 1. Critical remarks on using the point method by discretisation on a transformed gridâ€• Journal of Electroanalytical Chemistry, 2003, 558, 167-170. | 1.9 | 13 |
| 80 | High order accurate, one-sided finite-difference approximations to concentration gradients at the boundaries, for the simulation of electrochemical reaction-diffusion problems in one-dimensional space geometry. Computational Biology and Chemistry, 2003, 27, 315-325. | 1.1 | 23 |
| 81 | The combined unidirectional and local coupling in a spatially one-dimensional model of oscillatory metal electrodissolution. Patch-adaptive simulation study. Physical Chemistry Chemical Physics, 2003, 5, 1831-1841. | 1.3 | 12 |
| 82 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Advantage of time step adaptation, using example of current spikes in linear potential sweep voltammograms for the EqrevEqrev-DISP reaction mechanism. Electrochemistry Communications, 2002, 4, 5-10. | 2.3 | 13 |
| 83 | Analytical formulae for chronoamperometry of a charge neutralisation process under conditions of linear migration and diffusion. Electrochemistry Communications, 2002, 4, 917-921. | 2.3 | 13 |
| 84 | Use of the Numerov method to improve the accuracy of the spatial discretisation in finite-difference electrochemical kinetic simulations. Computers & Chemistry, 2002, 26, 633-644. | 1.2 | 22 |
| 85 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 2002, 527, 1-10. | 1.9 | 21 |
| 86 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 2002, 527, 11-20. | 1.9 | 9 |
| 87 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Part 12. Patch-adaptive simulation of example transient experiments described by kinetic models defined over multiple space intervals in one-dimensional space geometry. Journal of Electroanalytical Chemistry, 2002, 527, 21-32. | 1.9 | 12 |
| 88 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations.. Journal of Electroanalytical Chemistry, 2002, 529, 51-58. | 1.9 | 9 |
| 89 | Extension of the Thomas Algorithm to a Class of Algebraic Linear Equation Systems Involving Quasi-Block-Tridiagonal Matrices with Isolated Block-Pentadiagonal Rows, Assuming Variable Block Dimensions. Computing (Vienna/New York), 2001, 67, 269-285. | 3.2 | 24 |
| 90 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Patch-adaptive simulation of moving fronts in non-linear diffusion models of the switching of conductive polymers. Electrochemistry Communications, 2001, 3, 149-153. | 2.3 | 19 |

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| 91 | Chronopotentiometry at a microband electrode: simulation study using a Rosenbrock time integration scheme for differentialâ€“algebraic equations and a direct sparse solver. Journal of Electroanalytical Chemistry, 2001, 503, 141-152. | 1.9 | 11 |
| 92 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 2000, 481, 134-151. | 1.9 | 18 |
| 93 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 2000, 481, 115-133. | 1.9 | 43 |
| 94 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 2000, 481, 152-167. | 1.9 | 22 |
| 95 | Finite-difference electrochemical kinetic simulations using the Rosenbrock time integration scheme. Journal of Electroanalytical Chemistry, 1999, 469, 97-115. | 1.9 | 45 |
| 96 | Use of sensitivity analysis methods in the modelling of electrochemical transients Part 1. Gaining more insight into the behaviour of kinetic models. Journal of Electroanalytical Chemistry, 1998, 441, 271-285. | 1.9 | 18 |
| 97 | Use of sensitivity analysis methods in the modelling of electrochemical transients.. Journal of Electroanalytical Chemistry, 1998, 447, 173-186. | 1.9 | 9 |
| 98 | Use of sensitivity analysis methods in the modelling of electrochemical transients. Journal of Electroanalytical Chemistry, 1998, 458, 209-229. | 1.9 | 27 |
| 99 | ELSIMâ€”a problem-solving environment for electrochemical kinetic simulations. Version 3.0-solution of governing equations associated with interfacial species, independent of spatial coordinates or in one-dimensional space geometry. Computers & Chemistry, 1997, 21, 1-12. | 1.2 | 63 |
| 100 | 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 |
| 101 | A reaction compiler for electrochemical kinetics. Computers & Chemistry, 1996, 20, 403-418. | 1.2 | 32 |
| 102 | A method-oriented approach to the formulation of algorithms for electrochemical kinetic simulations. Part 2. Extension to kinetic problems characterized by the simultaneous presence of bulk and interfacial species. Journal of Electroanalytical Chemistry, 1996, 404, 195-208. | 1.9 | 16 |
| 103 | Automatic derivation of the governing equations that describe a transient electrochemical experiment, given a reaction mechanism of arbitrary complexity. Part 1. Problem parameters and initial conditions. Journal of Electroanalytical Chemistry, 1996, 406, 33-43. | 1.9 | 27 |
| 104 | Automatic derivation of the governing equations that describe a transient electrochemical experiment, given a reaction mechanism of arbitrary complexity. Part 2. Governing equations in one-dimensional geometry. Journal of Electroanalytical Chemistry, 1996, 406, 45-52. | 1.9 | 35 |
| 105 | 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 |
| 106 | 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 |
| 107 | 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 |
| 108 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 1994, 374, 1-22. | 1.9 | 35 |

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| 109 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 1994, 374, 23-35. | 1.9 | 29 |
| 110 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 1994, 379, 71-87. | 1.9 | 27 |
| 111 | Efficiency of Electrochemical Kinetic Simulations by Orthogonal Collocation and Finite Difference Methods. A comparison.. Acta Chemica Scandinavica, 1994, 48, 609-610. | 0.7 | 1 |
| 112 | Electrochemical kinetic simulations of mixed diffusion/homogeneous reaction problems by the Saul'yev finite difference algorithms. Analytica Chimica Acta, 1993, 278, 59-70. | 2.6 | 16 |
| 113 | ELSIMâ€"A PC program for electrochemical kinetic simulations. Version 2.0â€"solution of the sets of kinetic partial differential equations in one-dimensional geometry, using finite difference and orthogonal collocation methods. Computers & Chemistry, 1993, 17, 355-368. | 1.2 | 33 |
| 114 | An efficient numerical method of solving integral equations for cyclic voltammetry. Journal of Electroanalytical Chemistry, 1993, 347, 15-30. | 1.9 | 19 |
| 115 | Kinetics of the oxygen electrode reaction in molten Li + Na carbonate eutectic. Journal of Electroanalytical Chemistry, 1993, 353, 195-208. | 1.9 | 15 |
| 116 | The von Neumann stability of finite-difference algorithms for the electrochemical kinetic simulation of diffusion coupled with homogeneous reactions. Journal of Electroanalytical Chemistry, 1993, 345, 13-25. | 1.9 | 34 |
| 117 | Use of dynamically adaptive grid techniques for the solution of electrochemical kinetic equations. Journal of Electroanalytical Chemistry, 1993, 360, 119-138. | 1.9 | 41 |
| 118 | Efficiency of Electrochemical Kinetic Simulations by Orthogonal Collocation and Finite Difference Methods. A Comparison.. Acta Chemica Scandinavica, 1993, 47, 757-767. | 0.7 | 12 |
| 119 | An efficient numerical method of solving the Abel integral equation for cyclic voltammetry. Computers & Chemistry, 1992, 16, 311-317. | 1.2 | 14 |
| 120 | ELSIMâ€"A user-friendly PC program for electrochemical kinetic simulations. Version 1.0â€"Solution of integral equations for linear scan and cyclic voltammetry. Computers & Chemistry, 1992, 16, 11-14. | 1.2 | 50 |
| 121 | A method-oriented approach to the formulation of algorithms for electrochemical kinetic simulations. Journal of Electroanalytical Chemistry, 1992, 340, 19-34. | 1.9 | 15 |
| 122 | Kinetics of the oxygen electrode reaction in molten Li + Na carbonate eutectic. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1991, 304, 101-109. | 0.3 | 21 |
| 123 | Kinetics of the oxygen electrode reaction in molten Li + Na carbonate eutectic. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1991, 304, 111-121. | 0.3 | 24 |
| 124 | Kinetics ot the Oxygen Electrode Reactions at Golden Electrode in Molten (Li/Na) Carbonate Eutectic. Materials Science Forum, 1991, 73-75, 617-624. | 0.3 | 0 |
| 125 | Simulation of cyclic voltammetry for the linked mechanism of the hydrogen electrode reaction in molten carbonates. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1988, 249, 155-165. | 0.3 | 3 |
| 126 | The linked mechanism of the hydrogen electrode reaction in molten carbonates. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1986, 197, 387-393. | 0.3 | 2 |

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| 127 | Use of potential-step formulae to reduce computational time in the simulation of linear voltammetry by orthogonal collocation. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1986, 208, 165-168. | 0.3 | 4 |
| 128 | Linear voltammetric current functions for a pseudo-first-order EC catalytic reaction scheme with DO â‰ DR: Series expansion algorithm. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1985, 188, 13-20. | 0.3 | 9 |
| 129 | A study of ion transfer across the interface of two immiscible electrolyte solutions by chronopotentiometry with cyclic linear current-scanning. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1985, 189, 1-20. | 0.3 | 32 |
| 130 | The potential-step method theory for a linked mechanism involving an adsorption step, a charge-transfer step and diffusion, in the case of very low coverages of the intermediate. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1985, 195, 419-424. | 0.3 | 4 |
| 131 | Influence of diffusion coefficient ratio on potential-step chronoamperometric and linear voltammetric current at stationary planar electrodes in the case of a pseudo-first-order EC catalytic reaction scheme. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1984, 170, 77-87. | 0.3 | 17 |
| 132 | Monte Carlo simulation of the emergency shutdown system for the high-temperature pebble-bed nuclear reactor. Annals of Nuclear Energy, 1983, 10, 299-303. | 0.9 | 1 |