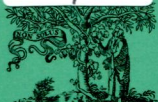


ПН
J80/e

Volume 689

15 January 2013

ISSN 1572-6657



ELSEVIER

Journal of Electroanalytical Chemistry

An International Journal
also devoted to
All Physicochemical Aspects of
Fundamental and Applied Electrochemistry

Editors:
J.M. Feliu
T. Kakiuchi
P. Unwin
X.H. Xia

Available online at www.sciencedirect.com

SciVerse ScienceDirect

In collaboration with
the International Society
of Electrochemistry





ELSEVIER

Contents lists available at SciVerse ScienceDirect

Journal of Electroanalytical Chemistry

journal homepage: www.elsevier.com/locate/jelechem



Contents

Abstracts and/or contents lists of this journal are published in: Analytical Abstracts, Metals Abstracts, World Aluminum Abstracts, Chemical Abstracts, Current Contents (Physical, Chemical & Earth Sciences), Engineering Index, INSPEC. Also covered in the abstract and citation database SciVerse Scopus®. Full text available on SciVerse ScienceDirect®.

- A facile route to search antioxidant additives for dry charged negative plate of the lead acid battery
B. Zhang, J. Zhong, Z. Cheng and H. Yang 1
- Influence of separator properties on electrochemical performance of electrical double-layer capacitors
K. Tönurist, T. Thomberg, A. Jänes, T. Romann, V. Sammelseg and E. Lust 8
- Photochemical properties of dye-sensitized solar cell using mixed natural dyes extracted from *Gardenia jasminoides* Ellis
K.H. Park, T.Y. Kim, J.Y. Park, E.M. Jin, S.-H. Yim, J.G. Fisher and J.W. Lee 21
- Electrostatic and steric interaction between redox polymers and some flavoenzymes in mediated bioelectrocatalysis
C.-H. Nieh, S. Tsujimura, O. Shirai and K. Kano 26
- Enhancement of photo-characteristics of Bi₂Se₃ thin films by post heat treatment at optimal temperature range
A. Jana and J. Datta 31
- Application of the Kramers Kronig relations to locally resolved impedance data of polymer electrolyte fuel cells
M.H. Bayer and I.A. Schneider 42
- Cathodic electrochemiluminescence of Eosin Y–peroxydisulfate system and its analytical application for determination of guanine
Y. Zhu, J. Liu, K. Chen, G. Shu and Y. Yang 46
- Influence of temperature on the electrochemical characteristics of Bi(1 1 1) ionic liquid interface
L. Siinor, R. Arendi, K. Lust and E. Lust 51
- Coadsorption optimization of DNA in binary self-assembled monolayer on gold electrode for electrochemical detection of oligonucleotide sequences
A. Ferrario, M. Scaramuzza, E. Pasqualotto, A. De Toni and A. Paccagnella 57
- Cyanide selective electrodes based on a porphyrinatoiron(III) chloride derivative
A. Shirmardi-Dezaki, M. Shamsipur, M. Akhond and H. Sharghi 63
- Electrochemical growth of CoPt nanowires of different aspect ratio and their magnetic properties
M. Cortés, E. Gómez and E. Vallés 69
- A comparative study on carbon paste electrodes modified with hybrid mesoporous materials for voltammetric analysis of lead (II)
A. Sánchez, S. Morante-Zarero, D. Pérez-Quintanilla, I. del Hierro and I. Sierra 76
- Sampled voltammetry on an electrode array for the renewal of the electrode surface and the analytical solution during the analysis
L. Mignard, M. Denoual, O. Lavastre, D. Floner and F. Geneste 83

(Contents continued on inside back cover)



1572-6657(20130115)689:C;1-A

(Contents continued from outside back cover)

Impacts of <i>in situ</i> carbon coating on the structural, morphological and electrochemical characteristics of $\text{Li}_2\text{MnSiO}_4$ prepared by a citric acid assisted sol-gel method S. Zhang, C. Deng, F.L. Liu, Q. Wu, M. Zhang, F.L. Meng and H. Gao	88
Poly(m-phenylenediamine)-Prussian blue hybrid film formed by one-step electrochemical deposition for glucose biosensor J.-Z. Tao, G.-R. Xu, H.-L. Hao, F.-X. Yang, K.-S. Ahn and W.-Y. Lee	96
Analysis of the terminal effect on the resistance tape at its constant and variable local conductivity A.I. Masliy, N.P. Poddubnyi, A.A. Vais and A.Zh. Medvedev	103
Reduction mechanism and carbon content investigation for electrolytic production of iron from solid Fe_2O_3 in molten K_2CO_3 - Na_2CO_3 using an inert anode D. Tang, H. Yin, W. Xiao, H. Zhu, X. Mao and D. Wang	109
Influence of o-fluorophenylbiguanidine on the kinetics of hydrogen evolution reaction on iron, the nature of rate-determining step and hydrogen diffusion through a steel membrane V.I. Vigdorovich, L.E. Tsygankova, D.V. Balybin and V.I. Kichigin	117
Resistance associated with measurements of capacitance in electric double layers K. Aoki, Y. Hou, J. Chen and T. Nishiumi	124
Sensitive determination of Cd(II) by square wave anodic stripping voltammetry with <i>in situ</i> bismuth-modified multiwalled carbon nanotubes doped carbon paste electrodes J.H. Luo, X.X. Jiao, N.B. Li and H.Q. Luo	130
Nano-Cu/PSA III modified glassy carbon electrode for simultaneous determination of ascorbic acid, dopamine and uric acid L. Zhang, W.-J. Yuan and B.-Q. Hou	135
Multielectrochromic copolymers of 3,4-ethylenedioxythiophene and naphthalene prepared via electropolymerization in boron trifluoride diethyl etherate T. Yijie, C. Haifeng, Z. Zhaoyang, X. Xiaoqian and Z. Yongjiang	142
Degradation of sulfanilamide in acidic medium by anodic oxidation with a boron-doped diamond anode A. El-Ghenymy, J.A. Garrido, R.M. Rodríguez, P.L. Cabot, F. Centellas, C. Arias and E. Brillas	149
Anodic oxidation, electro-Fenton and photoelectro-Fenton degradation of cyanazine using a boron-doped diamond anode and an oxygen-diffusion cathode N. Borràs, C. Arias, R. Oliver and E. Brillas	158
Proton uptake vs. redox driven release from metal-organic-frameworks: Alizarin red S reactivity in UMCM-1 J.E. Halls, S.D. Ahn, D. Jiang, L.L. Keenan, A.D. Burrows and F. Marken	168
Electrochemical impedance characteristics and electroreduction of oxygen at tungsten carbide derived micromesoporous carbon electrodes E. Härk, J. Nerut, K. Vaarmets, I. Tallo, H. Kurig, J. Eskusson, K. Kontturi and E. Lust	176
Electrochemical characterization of NiO electrodes deposited via a scalable powder microblasting technique M. Awais, D. Dini, J.M. Don MacElroy, Y. Halpin, J.G. Vos and D.P. Dowling	185
Preparation of Ti/PbO ₂ -Sn anodes for electrochemical degradation of phenol H. Li, Y. Chen, Y. Zhang, W. Han, X. Sun, J. Li and L. Wang	193
High voltage asymmetric supercapacitor based on MnO ₂ and graphene electrodes J. Cao, Y. Wang, Y. Zhou, J.-H. Ouyang, D. Jia and L. Guo	201
Isatin nitro-derivatives redox behaviour S.C.B. Oliveira, I.P.G. Fernandes, B.V. Silva, A.C. Pinto and A.M. Oliveira-Brett	207
Electrochemical oxidation mechanism of phosphotyrosine at a glassy carbon electrode O.M. Popa and V.C. Diculescu	216

(Contents continued on facing page)

(Contents continued from inside back cover)

Microporous membranes of NaY zeolite/poly(vinylidene fluoride–trifluoroethylene) for Li-ion battery separators J. Nunes-Pereira, A.C. Lopes, C.M. Costa, L.C. Rodrigues, M.M. Silva and S. Lanceros-Méndez	223
Electrochemical biosensor for the selective determination of hydrogen peroxide based on the co-deposition of palladium, horseradish peroxidase on functionalized-graphene modified graphite electrode as composite S. Nandini, S. Nalini, R. Manjunatha, S. Shanmugam, J.S. Melo and G.S. Suresh	233
New hydroxylated 3-arylcoumarins, synthesis and electrochemical study P. Janeiro, M.J. Matos, L. Santana, E. Uriarte and A.M. Oliveira-Brett	243
Voltammetry of nanomolar leveled environmental hazards on the polymer/CNT coated electrodes Q. Wan, P. Yang, H. Cai, H. Song and N. Yang	252
Isoflurane as a solvent for electrochemistry. Electrooxidation study of icosahedral carborane anions in four different solvents A. Wahab, H. Kvapilová, J. Klíma, J. Michl and J. Ludvík	257
Electroanalytical properties of metal–oxide electrodes formed by plasma electrolytic oxidation G.I. Marinina, M.S. Vasilyeva, A.S. Lapina, A. Yu. Ustinov and V.S. Rudnev	262
Voltammetry study of Cr(III)/Cr(II) system in methanesulfonate and sulfate solutions: Temperature dependences A.A. Kityk, V.S. Protsenko and F.I. Danilov	269
Determination of free metal ion concentrations with AGNES in low ionic strength media D. Aguilar, C. Parat, J. Galceran, E. Companys, J. Puy, L. Authier and M. Potin-Gautier	276
Electrochemical titration of carboxylic acid terminated SAMs on evaporated gold: Understanding the ferricyanide electrochemistry at the electrode surface R.A. Clark, C.J. Trout, L.E. Ritchey, A.N. Marciniak, M. Weinzierl, C.N. Schirra and D. Christopher Kurtz	284
Electrochemical and electrochromic properties of two novel polymers containing carbazole and phenyl-methanone units B. Hu, Y. Zhang, X. Lv, M. Ouyang, Z. Fu and C. Zhang	291
Electrochemical hydrogen storage of Pt and Ni nanoparticles-electrodeposited multi-walled carbon nanotube/micro-hybrid composite N. Rahimi, M.M. Doroodmand, S. Sabbaghi and M.H. Sheikhi	297
Time-dependent chronoamperometric response of dual inlaid disk electrodes C.G. Bell, P.D. Howell and H.A. Stone	303
Publisher's Note E. Chen	314
Publisher's Note E. Chen	315
Comment on the paper "The role of HBF ₄ in electro-catalysis: Arsenic contamination and anion adsorption" by A.L. Santos, R. Nagao, C.P. Oliveira, R.B. de Lima, H. Varela [J. Electroanal. Chem. 660 (2011) 147–152] M. Schell	316
Reprint of: Reply to the "Comment on the paper 'The role of HBF ₄ in electro-catalysis: Arsenic contamination and anion adsorption' by A.L. Santos, R. Nagao, C.P. Oliveira, R.B. de Lima, H. Varela [J. Electroanal. Chem. 660 (2011) 147–152]" A.L. Santos, R. Nagao, C.P. Oliveira, R.B. de Lima and H. Varela	318