

Contents of Volume 71

Vol. 71 No. 1

Editorial

W. Kutner	1
Voltammetric determination of catalytic reaction parameters of laccase based on electrooxidation of hydroquinone and ABTS M. Klis, J. Rogalski and R. Bilewicz	2
Catalytic activity of oxidases hosted in lipidic cubic phases on electrodes E. Nazaruk and R. Bilewicz	8
Immobilization of laccase on gold, silver and indium tin oxide by zirconium–phosphonate–carboxylate (ZPC) coordination chemistry M. Mazur, P. Krysiński, A. Michota-Kamińska, J. Bukowska, J. Rogalski and G.J. Blanchard	15
Hybrid bioelectrocatalyst for hydrogen peroxide reduction: Immobilization of enzyme within organic–inorganic film of structured Prussian Blue and PEDOT A. Ernst, O. Makowski, B. Kowalewska, K. Miecznikowski and P.J. Kulesza	23
Liquid photopolymerizable compositions as immobilized matrix of biosensors N.F. Starodub and A.V. Rebriv	29
Interaction of tin(II) and arsenic(III) with DNA at the nanostructure film modified electrodes A. Ferancová, M. Adamovski, P. Gründler, J. Zima, J. Barek, J. Mattusch, R. Wennrich and J. Labuda	33
Electrical wiring of <i>Pseudomonas putida</i> and <i>Pseudomonas fluorescens</i> with osmium redox polymers S. Timur, B. Haghighi, J. Tkac, N. Pazarlıoğlu, A. Telefoncu and L. Gorton	38
Nitric oxide sensor based on carbon fiber covered with nickel porphyrin layer deposited using optimized electropolymerization procedure J. Hrbáč, Č. Gregor, M. Machová, J. Králová, T. Bystron, M. Číž and A. Lojek	46
Effects of divalent cations on the formation and structure of solid supported lipid films M. Karabaliev	54
Heavy metal sorption in the lichen cationactive layer K. Andrzej, R. Małgorzata, W. Maria and W. Witold	60
Conducting polymers in modelling transient potential of biological membranes B. Paczosa-Bator, T. Blaz, J. Migdalski and A. Lewenstam	66
Plastic reference electrodes and plastic potentiometric cells with dispersion cast poly(3,4-ethylenedioxythiophene) and poly(vinyl chloride) based membranes A. Kisiel, A. Michalska and K. Maksymiuk	75
Parallel synthesis of libraries of anodic and cathodic functionalized electrodeposition paints as immobilization matrix for amperometric biosensors B. Ngounou, E.H. Aliyev, D.A. Guschin, Y.M. Sultanov, A.A. Efendiev and W. Schuhmann	81
Enantioselective screen-printed amperometric biosensor for the determination of D-amino acids M. Wcislo, D. Compagnone and M. Trojanowicz	91
pH-tunable equilibria in azocrown ethers with histidine moieties E. Jablonowska, B. Palys, E. Wagner-Wysiecka, M. Jamrógiewicz, J.F. Biernat and R. Bilewicz	99

Short Communications

Electrochemical insights into the ethanol tolerance of <i>Saccharomyces cerevisiae</i> M. Wang, J. Zhao, Z. Yang, Z. Du and Z. Yang	107
Combined therapy of the antimetastatic compound NAMI-A and electroporation on B16F1 tumour cells in vitro A. Bicek, I. Turel, M. Kanduser and D. Miklavcic	113

Research Articles

Immobilization of <i>E. coli</i> bacteria in three-dimensional matrices for ISFET biosensor design F. Bettaieb, L. Ponsonnet, P. Lejeune, H.B. Ouada, C. Martelet, A. Bakhrouf, N. Jaffrézic-Renault and A. Othmane	118
Monitoring of titanium base alloys–biofluids interface M.V. Popa, I. Demetrescu, S.-H. Suh, E. Vasilescu, P. Drob, D. Ionita and C. Vasilescu	126
Direct electrochemistry and electrocatalysis of hemoglobin entrapped in semi-interpenetrating polymer network hydrogel based on polyacrylamide and chitosan X. Zeng, W. Wei, X. Li, J. Zeng and L. Wu	135
Evidence for non-chemical, non-electrical intercellular signaling in intestinal epithelial cells A. Farhadi, C. Forsyth, A. Banan, M. Shaikh, P. Engen, J.Z. Fields and A. Keshavarzian	142
Effect of shape on the dielectric properties of biological cell suspensions A. Di Biasio and C. Cametti	149
Study of the adsorption and oxidation of antioxidant rutin by cyclic voltammetry–voltabsorptometry J.-B. He, Y. Wang, N. Deng and X.-Q. Lin	157
Feasibility study for cell electroporation detection and separation by means of dielectrophoresis J. Oblak, D. Križaj, S. Amon, A. Maček-Lebar and D. Miklavčič	164
Direct electrochemistry and electrocatalytic characteristic of heme proteins immobilized in a new sol–gel polymer film Y.-X. Sun and S.-F. Wang	172
Direct electrochemistry and bioelectrocatalysis of hemoglobin immobilized on carbon black G.-X. Ma, T.-H. Lu and Y.-Y. Xia	180
SECM characterization of immobilised enzymes by self-assembled monolayers on titanium dioxide surfaces E.M. Oliveira, S. Beyers and J. Heinze	186
Electrical signaling in <i>Aloe vera</i> induced by localized thermal stress A.G. Volkov, R.D. Lang and M.I. Volkova-Gugeshashvili	192
Studies on direct electron transfer and biocatalytic properties of hemoglobin in polyacrylonitrile matrix D. Shan, S. Wang, D. Zhu and H. Xue	198
Electrochemical probe DNA design in PCR amplicon sequence for the optimum detection of microbiological diseases P. Kara, S. Cavdar, B. Meric, S. Erensoy and M. Ozsoz	204
Enzyme-functionalized gold nanowires for the fabrication of biosensors Y. Lu, M. Yang, F. Qu, G. Shen and R. Yu	211
Photokilling cancer cells using highly cell-specific antibody–TiO ₂ bioconjugates and electroporation J. Xu, Y. Sun, J. Huang, C. Chen, G. Liu, Y. Jiang, Y. Zhao and Z. Jiang	217
Ion transport in tumors under electrochemical treatment: In vivo, in vitro and in silico modeling L. Colombo, G. González, G. Marshall, F.V. Molina, A. Soba, C. Suarez and P. Turjanski	223
Electric field-mediated transport of plasmid DNA in tumor interstitium in vivo J.W. Henshaw, D.A. Zaharoff, B.J. Mossop and F. Yuan	233
Direct electrochemistry and electrocatalysis of hemoglobin on undoped nanocrystalline diamond modified glassy carbon electrode J.-T. Zhu, C.-G. Shi, J.-J. Xu and H.-Y. Chen	243
Author Index to Volume 71	I
Subject Index to Volume 71	III
Contents of Volume 71.	VII