

Contents of Volume 70

Vol. 70 No. 1

Editorial

A.M. Oliveira Brett	1
Biomolecule–nanoparticle hybrid systems for bioelectronic applications	
I. Willner, B. Willner and E. Katz.	2
Lipid content in higher plants under osmotic stress	
L. Bavaro, L. Catucci, N. Depalo, A. Ventrella, A. Corcelli and A. Agostiano.	12
Enthalpy/entropy driven activation of the first interquinone electron transfer in bacterial photosynthetic reaction centers embedded in vesicles of physiologically important phospholipids	
F. Milano, M. Dorogi, K. Szabenyi, L. Nagy, P. Maróti, G. Váró, L. Giotta, A. Agostiano and M. Trotta	18
Determination of the lipid bilayer breakdown voltage by means of linear rising signal	
P. Kramar, D. Miklavcic and A.M. Lebar	23
Interfacial tension of the lipid membrane formed from lipid-fatty acid and lipid-amine systems	
A.D. Petelska, M. Naumowicz and Z.A. Figaszewski.	28
Focus on the aggregation processes of Photosystem II complexes	
A. Ventrella, L. Catucci, V. Villari, L.M. Scolaro and A. Agostiano.	33
Cyclodextrin/chlorophyll <i>a</i> complexes as supramolecular photosensitizers	
P.L. Dentuto, L. Catucci, P. Cosma, P. Fini, A. Agostiano, S. Hackbarth, F. Rancan and B. Roeder.	39
Study on the aggregation and electrochemical properties of Rose Bengal in aqueous solution of cyclodextrins	
P. Fini, R. Loseto, L. Catucci, P. Cosma and A. Agostiano	44
Interactions between PAMAM dendrimers and gallic acid molecules studied by spectrofluorimetric methods	
B. Klajnert and M. Bryszewska	50
Mechanism of actin polymerization by myosin subfragment-1 probed by dynamic light scattering	
A. Galińska-Rakoczy, B. Jachimska and H. Strzelecka-Golaszewska	53
Redox sensing by <i>Escherichia coli</i> : Effects of copper ions as oxidizers on proton-coupled membrane transport	
G. Kirakosyan and A. Trchounian.	58
Modeling the induction of lipid membrane electroporation	
M. Kotulska, K. Kubica, S. Koronkiewicz and S. Kalinowski	64
Nonlinear current–voltage relationship of the plasma membrane of single CHO cells	
H. Krassen, U. Pliquet and E. Neumann.	71
Evaluation of cytotoxic effect of photodynamic therapy in combination with electroporation in vitro	
J. Labanauskienė, J. Gehl and J. Didziapetrienė	78
Simulation of electroporated cell by chronopotentiometry	
S. Kalinowski, S. Koronkiewicz, M. Kotulska and K. Kubica	83

Effect of electromagnetic fields on the denitrification activity of <i>Paracoccus denitrificans</i> L. Fojt, L. Strašák and V. Vetterl	91
Low-frequency magnetic field effect on cytoskeleton and chromatin J. Kroupová, E. Bártoňová, L. Fojt, L. Strašák, S. Kozubek and V. Vetterl	96
Electric field mediated DNA motion model J.D. Hickey, L. Heller, R. Heller and R. Gilbert	101
A new exposure system for the <i>in vitro</i> detection of GHz field effects on neuronal networks P. Koester, J. Sakowski, W. Baumann, H.-W. Glock and J. Gimsa	104
Effects of low-frequency magnetic fields on the viability of yeast <i>Saccharomyces cerevisiae</i> J. Novák, L. Strašák, L. Fojt, I. Slaninová and V. Vetterl	115
Conformational change of membrane proteins leads to shape changes of red blood cells T. Betz, U. Bakowsky, M.R. Müller, C.-M. Lehr and I. Bernhardt	122
Influence of ionic strength, pH and aptamer configuration for binding affinity to thrombin T. Hianik, V. Ostatná, M. Sonlajtnerova and I. Grman	127
On the temperature dependence of the dielectric membrane properties of human red blood cells J. Sudsiri, D. Wachner and J. Gimsa	134
Electrochemical behaviour of 2,8-dihydroxyadenine at a glassy carbon electrode V.C. Diculescu, J.A.P. Piedade and A.M. Oliveira-Brett	141
Electrocatalytic activity of cobalt phthalocyanine CoPc adsorbed on a graphite electrode for the oxidation of reduced L-glutathione (GSH) and the reduction of its disulfide (GSSG) at physiological pH N. Pereira-Rodrigues, R. Cofré, J.H. Zagal and F. Bedioui	147
Interactions of adsorbed albumin with underpotentially deposited copper on gold piezoelectrodes M. Hepel and M. Stobiecka	155
Optimization of the biological component of a bioelectrochemical cell E.J. Cho and A.D. Ellington	165
Simultaneous detection of L-glutamate and nitric oxide from adherently growing cells at known distance using disk shaped dual electrodes S. Isik, J. Castillo, A. Blöchl, E. Csöregi and W. Schuhmann	173
Specific electrochemical phage sensing for <i>Bacillus cereus</i> and <i>Mycobacterium smegmatis</i> M. Yemini, Y. Levi, E. Yagil and J. Rishpon	180
Preliminary electrochemical studies of the flavohaemoprotein from <i>Ralstonia eutropha</i> entrapped in a film of methyl cellulose: Activation of the reduction of dioxygen P. de Oliveira, A. Ranjbari, L. Baciou, T. Bizouarn, G. Ollesch, U. Ermler, P. Sebban, B. Keita and L. Nadjio	185
Application of cell-based biosensors for the detection of bacterial elicitor flagellin T. Oczkowski, E. Zwierkowska and S. Bartkowiak	192
Guide for Authors	I

Vol. 70 No. 2

Electroenzymatic reactions with oxygen on laccase-modified electrodes in anhydrous (pure) organic solvent A. Yaropolov, S. Shleev, E. Zaitseva, J. Emnéus, G. Marko-Varga and L. Gorton	199
Electrochemical screening of anti-microbial peptide LL-37 interaction with phospholipids F. Neville, D. Gidalevitz, G. Kale and A. Nelson	205
Antiproliferative effect of millimeter radiation on human erythromyeloid leukemia cell line K562 in culture: Ultrastructural- and metabolic-induced changes A. Beneduci, G. Chidichimo, S. Tripepi, E. Perrotta and F. Cufone	214
The effects of conductivity and electrochemical doping on the reduction of methemoglobin immobilized in nanoparticulate TiO ₂ films E.V. Milsom, H.A. Dash, T.A. Jenkins, M. Opallo and F. Marken	221

DNA biosensor based on the electrochemiluminescence of $\text{Ru}(\text{bpy})_3^{2+}$ with DNA-binding intercalators J.-G. Lee, K. Yun, G.-S. Lim, S.E. Lee, S. Kim and J.-K. Park	228
DNA/Poly(<i>p</i> -aminobenzenesulfonic acid) composite bi-layer modified glassy carbon electrode for determination of dopamine and uric acid under coexistence of ascorbic acid X. Lin, G. Kang and L. Lu	235
Electrochemical detection of short sequences related to the hepatitis B virus using MB on chitosan-modified CPE G. Mandong, L. Yanqing, G. Hongxia, W. Xiaoqin and F. Lifang	245
Direct electrochemistry of glucose oxidase immobilized on a hexagonal mesoporous silica-MCM-41 matrix Z.H. Dai, J. Ni, X.H. Huang, G.F. Lu and J.C. Bao.	250
Impedance sensing of allergen–antibody interaction on glassy carbon electrode modified by gold electrodeposition H. Huang, P. Ran and Z. Liu	257
Voltammetric determination of ethinylestradiol at a carbon paste electrode in the presence of cetyl pyridine bromine C. Li	263
A single HBsAg DNA vaccination in combination with electroporation elicits long-term antibody responses in sheep S. Babiuk, C. Tsang, S. van Drunen Littel-van den Hurk, L.A. Babiuk and P.J. Griebel	269
High electrical field effects on cell membranes U. Pliquet, R.P. Joshi, V. Sridhara and K.H. Schoenbach	275
Electrochemotherapy of Mycosis fungoides by interferon- α E. Peycheva, I. Daskalov and I. Tsoneva	283
<i>In vivo</i> electrical impedance measurements during and after electroporation of rat liver A. Ivorra and B. Rubinsky.	287
Electrochemical parameters of ethamsylate at multi-walled carbon nanotube modified glassy carbon electrodes S.-F. Wang and Q. Xu	296
Comparative study on the interaction of DNA with three different kinds of surfactants and the formation of multilayer films Q. Liu, J. Li, W. Tao, Y. Zhu and S. Yao	301
Immobilization stress increases endogenous monoamine oxidase (MAO) inhibitor in rat liver T. Obata	308
Layer-by-layer films of hemoglobin or myoglobin assembled with zeolite particles: Electrochemistry and electrocatalysis Y. Xie, H. Liu and N. Hu	311
Electrostatic properties and macroscopic electrodiffusion in OmpF porin and mutants M. Aguilera-Arzo, J.J. García-Celma, J. Cervera, A. Alcaraz and V.M. Aguilera	320
Dielectric properties of aqueous zwitterionic liposome suspensions A. Di Biasio and C. Cametti.	328
Direct electrochemistry of glucose oxidase in a colloid Au–dihexadecylphosphate composite film and its application to develop a glucose biosensor Y. Wu and S. Hu	335
A simple method to fabricate a chitosan-gold nanoparticles film and its application in glucose biosensor Y. Du, X.-L. Luo, J.-J. Xu and H.-Y. Chen	342
Electrochemical piezoelectric quartz crystal impedance study on the interaction between concanavalin A and glycogen at Au electrodes L. Tan, Q. Xie and S. Yao	348
Electrochemical oxidation of morin and interaction with DNA F. Wang, Y. Xu, J. Zhao and S. Hu.	356
Using a micro electroporation chip to determine the optimal physical parameters in the uptake of biomolecules in HeLa cells H. He, D.C. Chang and Y.-K. Lee	363
Study on the electrochemical behavior and differential pulse voltammetric determination of rhein using a nanoparticle composite film-modified electrode J. Fei, Y. Peng, H. Tan, X. Chen, J. Yang and J. Li.	369

Development of cholesterol biosensor based on immobilized cholesterol esterase and cholesterol oxidase on oxygen electrode for the determination of total cholesterol in food samples A.K. Basu, P. Chattopadhyay, U. Roychoudhuri and R. Chakraborty	375
Ion channels of N-terminally linked alamethicin dimers: Enhancement of cation-selectivity by substitution of Glu for Gln at position 7 T. Okazaki, Y. Nagaoka and K. Asami.	380
The effect of the ionophore valinomycin on biomimetic solid supported lipid DPPTE/EPC membranes L. Rose and A.T.A. Jenkins	387
Myoglobin modified electrodes as anchors for <i>d</i> metal cationic complexes M.F. Cerdá, G. Obal, J.S. Gancheff, C. Kremer, A.M. Castro Luna, A.M. Braun, M. Woerner and E. Méndez	394
Electrical probing of endothelial cell behaviour on a fibronectin/polystyrene/thiol/gold electrode by Faradaic electrochemical impedance spectroscopy (EIS) A. Bouafsoun, S. Helali, S. Mebarek, C. Zeiller, A.-F. Prigent, A. Othmane, A. Kerkeni, N. Jaffrézic-Renault and L. Ponsonnet	401
Sodium dodecyl sulfate-modified carbon paste electrodes for selective determination of dopamine in the presence of ascorbic acid J. Zheng and X. Zhou	408
Direct electrochemistry behavior of cytochrome <i>c</i> /L-cysteine modified electrode and its electrocatalytic oxidation to nitric oxide Y.-C. Liu, S.-Q. Cui, J. Zhao and Z.-S. Yang	416
Probing organization and communication at layered interfaces M. Dominska, M. Mazur, K.P. Greenough, M.M. Koan, P.G. Krysiński and G.J. Blanchard.	421
Electrochemical behaviors of native and thermally denatured fish DNA in the presence of cytosine derivatives and porphyrin by cyclic voltammetry using boron-doped diamond electrode A. Apilux, M. Tabata and O. Chailapakul	435
Electrooxidation of dissolved dsDNA backed by <i>in situ</i> UV-Vis spectroscopy A.M. Nowicka, E. Zabost, M. Donten, Z. Mazerska and Z. Stojek	440
Studies of interactions among cobalt(III) polypyridyl complexes, 6-mercaptopurine and DNA C. Zhou, X. Du and H. Li	446
Electrocatalytic properties of guanine, adenine, guanosine-5'-monophosphate, and ssDNA by Fe(II) bis(2,2':6',2''-terpyridine), Fe(II) tris(1,10-phenanthroline), and poly-Fe(II) tris(5-amino-1,10-phenanthroline) S.-M. Chen and C.-H. Wang	452
Na-nitroprusside and HgCl ₂ modify the water permeability and volume of human erythrocytes G. Lahajnar, S. Pečar and A. Sepe	462
Maxwell displacement current allows to study structural changes of gramicidin A in monolayers at the air–water interface P. Vitovič, M. Weis, P. Tomčík, J. Cirák and T. Hianik	469
Electrochemical detection of <i>E. coli</i> 16S rDNA sequence using air-plasma-activated fullerene-impregnated screen printed electrodes H. Shiraishi, T. Itoh, H. Hayashi, K. Takagi, M. Sakane, T. Mori and J. Wang	481
Electrochemical response of oligonucleotides on carbon paste electrode I. Stempkowska, M. Ligaj, J. Jasnowska, J. Langer and M. Filipiak	488
Cathodic reduction of coenzyme Q ₁₀ on glassy carbon electrode in acetic acid–acetonitrile solutions S. Michalkiewicz	495
Real time electroporation control for accurate and safe in vivo non-viral gene therapy D. Cukjati, D. Batiuskaite, F. André, D. Miklavčič and L.M. Mir	501
Electrochemical determination of Ag-ions in environment waters and their action on plant embryos R. Mikelova, J. Baloun, J. Petřlova, V. Adam, L. Havel, J. Petrek, A. Horna and R. Kizek	508
Increase of the roughness of the stainless-steel anode surface due to the exposure to high-voltage electric pulses as revealed by atomic force microscopy G. Saulis, R. Rodaitė-Riševičienė and V. Snitka	519
Study of the interaction between oxygen and bile salts G. Feroci, A. Roda and A. Fini.	524
Effects of T-tubules on dielectric spectra of skeletal muscle simulated by boundary element method with two-dimensional models K. Sekine, C. Hibino, M. Kimura and K. Asami	532

Protein influence on the plasma membrane dielectric properties: In vivo study utilizing dielectric spectroscopy and fluorescence microscopy M. Stoneman, A. Chaturvedi, D.B. Jansma, M. Kosempa, C. Zeng and V. Raicu	542
Electric field modulation in tissue electroporation with electrolytic and non-electrolytic additives A. Ivorra and B. Rubinsky.	551
Author Index to Volume 70	I
Subject Index to Volume 70	III
Contents of Volume 70	XIII

The publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. Please refer to the online version of the Guide for Authors at <http://www.elsevier.com/locate/bioelechem>