Contents

Rogowska A., Railean-Plugaru V., Pomastowski P., Walczak J., Buszewski B.: *Application of the MALDI-TOF MS technique to investigation the molecular profiles of* Escherichia coli *treated with antibiotics and various zinc forms* 1

Shavokshina V., Andreev E.: *Sensing element based on poly(3,4-(1-azidomethylethylene)dioxythiophene) as electroactive layer of electrochemical DNA sensors* 8

Golubova A.D., Shapovalova E.N., Ananieva I.A.: *New sorbent based on silica gel modified with eremomycin-stabilized gold nanoparticles for enantioseparation by liquid chromatography* 15

Scherer B., Matysik F.M.: *Analytical investigations of fusing und detailing agents used in the context of the multi jet fusion process in 3D printing* 22

Wrona P., Rafińska K., Możeńskia C., Buszewski B.: *The influence of process parameters of the supercritical carbon dioxide extraction on the antioxidant activity in extracts from* Solidago gigantea *Ait. and* Medicago sativa *L.* 30

Molnárová K., Křížek T.: *Determination of low-molecular-mass heparin using affinity capillary electrophoresis* 39

Pryshchepa O., Złoch M., Pauter K., Szultka-Młyńska M., Pomastowski P., Buszewski B.: *Selection of experimental conditions for the identification of bacteria by MALDI-TOF MS* 45

Rodzik A., Railean-Plugaru V., Rafińska K., Pomastowski P., Buszewski B., Kowalkowski T.: *Zinc ions binding to β-lactoglobulin: proteomic study and physicochemical characteristic* 51

Gajdár J., Barek J., Fischer J.: *Novel construction of renewable silver amalgam film electrode for voltammetric analysis* 57

Tvorynska S., Barek J., Josypčuk B.: *Flow amperometric biosensor based on two enzymatic reactors (acetylcholinesterase-choline oxidase) for the detection of neurotransmitter acetylcholine* 61

Król A., Pomastowski P., Railean-Plugaru V., Buszewski B., Szultka-Młyńska M.: *Effect of different types of divalent metal ions on* Lactobacillus paracasei *electrophoretic determination* 67

Pauter K., Szultka-Młyńska M., Pomastowski P., Złoch M., Buszewski B.: *Complementary approach on bacteria and antibiotics investigation* 74

Wert S., Raith T., Matysik F.-M.: *Novel probe fabrication method for simultaneous scanning electrochemical microscopy and scanning ion conductance microscopy measurements* 79

Gładysz M., Król M., Chudecka A., Kościelniak P.: *Analysis of red lipstick traces: development of sampling procedure* 85

Świądro M., Wietecha-Posłuszny R., Dudek D., Kościelniak P.: *Development of extraction method for the isolation of antidepressants from human blood* 92

Madej M., Kochana J., Baś B.: *Application of double disc glassy carbon electrode for voltammetric determination of viloxazine* 98

Porada R., Jedlińska K., Lipińska J., Baś B.: *Application of stripping voltammetry for monitoring of vitamin B_2* in vitro *synthesis by* Bacillus subtillis 104

Strmeň T., Cvačka J.: *Aldrithiol-2 as a new derivatization agent for double bond localization in unsaturated compounds by mass spectrometry* 111

Djurdjic S., Stankovic V., Švorc Ľ., Mutic J., Stankovic D.: *Electrochemical quantification of arrow poison, tubocurarine: application on biological fluids* 118

Nikolaeva A., Korotkova E.: *Determination of food additives quinine and indigo carmine in pharmaceutical drugs by the fluorimetry* 125

Banaszkiewicz L., Woźniak M.K., Kot-Wasik A.: *Application of GC-MS/MS technique for the determination of benzodiazepines in blood samples* 131

Ponomareva M., Popova V., Korotkova E.: *Determination of L-arginine in dietary supplement by voltammetry on glassy carbon electrode* 138

Borowska M., Jankowski K.: *Application of analytical methods for determining properties of selenium nanoparticles* 142

Dębosz M., Wieczorek M., Kościelniak P., Migdalski J.: *Signal increment standard addition method: new calibration approach in potentiometric measurements* 149
Andreeva K., Vokhmyanina D., Karyakin A.: *Stabilized lactate biosensors based on composite alkoxysilane-Nafion membranes* 155
Krasilnikova Y.A., Dubenskiy A.S., Seregina I.F., Bolshov M.A., Pavlova L.A., Davankov V.A.: *Investigation of* Ru, Rh, Pd, Os, Ir, Pt, Au *chlorocomplexes sorption preconcentration in static and dynamic mode on the new polyvinylpyridine sorbents* 160
Zavolskova M., Nikitina V., Karyakin A.: *DC amperometric flow-injection analysis of ions and neutral molecules transduced by electroactive polymers* 167
Borowska M., Kot-Wasik A., Kucińska-Lipka J.: *Biopsy needles coated with the antimicrobial coatings* 174
Šoukal J., Musil S.: *Optimization of photochemical vapor generation of nickel with ICP-MS detection* 179
Krylov I.: *Chemometric estimation of spectral profile of internal standard* 184
Karpova E.V., Shcherbacheva E.V., Karyakina E.E., Karyakin A.A.: *Non-invasive monitoring of diabetes and hypoxia based on continuous sweat analysis by flow-through biosensors* 190
Benešová L., Bláhová E., Yershova P., Klouda J., Schwarzová K.: *Electroanalysis of cholesterol and its precursor 7-dehydrocholesterol on carbon-based electrodes* 197
Korban A., Sobolenko L.: *The possibility to employ ethanol as an internal standard in quantification of volatile compounds in alcoholic products with GC-MS* 202
Štádlerová B., Kolrosová M., Dědina J., Musil S.: *Atomization of bismuthane in two flame atomizers for atomic fluorescence spectrometry* 208
Dobrovodský D., Daňhel A., Malíková J., Fojta M.: *Electrochemical detection of G-quadruplex by interaction with porphyrin ligand* 215
Kovač I., Martín Miján P., Del Sol Vega Alegre M., Dejmková H., Jaklová Dytrtová J., Schwarzová K.: *Method optimization for simultaneous separation of six triazole fungicides in HPLC* 220
Vosáhlová J., Brycht M., Baluchová S., Krůšek J., Dittert I., Mortet V., Taylor A., Klimša L., Kopeček J., Schwarzová K.: *Fabrication, morphology and electrochemical properties of boron doped diamond microelectrodes on tungsten supports* 226
Outlá M., Špaček J., Renčiuk D., Fojta M.: *Study of synthetic oligonucleotides containing guanine by circular dichroism spectroscopy and voltammetry on a pyrolytic graphite electrode* 232
Skalová Š., Fischer J., Barek J., Navrátil T., Krejčí J., Kučerová R., Vyskočil V.: *Continuous monitoring of anthraquinone-based anticancer drugs by amperometric technique* 238
Lipińska J., Porada R., Jedlińska K., Baś B.: *Electrochemical characteristic of a novel bi-disc glassy carbon electrode* 242
Kalinowska A., Szopińska M., Chmiel S., Kończak M., Polkowska Ż., Jankowska K., Łuczkiewicz A.: *Status quo of the arctic wastewater recipient – environment modification by chemical compounds including selected heavy metals (Longyearbyen, Svalbard)* 248
Vyhnanovský J., Yildiz D., Musil S.: *Effect of metal sensitizers on photochemical vapor generation of bismuth for analytical atomic spectrometry* 257
Augustín M., Vyskočil V.: *Novel electrochemical DNA biosensor based on edge-plane pyrolytic graphite for DNA interaction studies* 263
Horká P., Vrkoslav V., Cvačka J.: *Structural characterization of fatty acids with triple bond and unusual double bond positions by HPLC/APCI-MS^2* 269
Novotný V., Schwarzová K., Barek J.: *A novel version of a silver solid amalgam electode for the combination of hollow fiber supported membrane extraction and voltammetric determination of acidic substances* 276

Author index 281

Keyword index 283