

CONTENTS

- 1 **Preface** — Tarasevich Yu.I. and Leboda R.
- 3 **Influence of Chemical Modification on Porous Structure and Surface Properties of Activated Carbons** — Repelewicz M. and Choma J.
- 11 **Influence of Teflon Surface Roughness on the Contact Angle and the Bubble Attachment in Water** — Terpilowski K., Krasowska M., Chibowski E. and Malysa K.
- 17 **Preparation and Characterization of Porous Polymer Composites Filled with Chemically Modified Silicas** — Bolbukh Yu.M., Tertykh V.A., Kuzema P.O. and Gawdzik B.
- 25 **Selective Hydrogenation of Crotonaldehyde over Gallia and Germania Supported Ruthenium Catalysts in a Gas Phase** — Gebauer-Henke E. and Rynkowski J.
- 33 **The Structural and Energetic Properties of Zeolitic and MCM-41 Surfaces** — Oszczudłowski J., Witkiewicz Z. and Klinik J.
- 43 **The Activity of SO₂ Removal from Combustion Gases by the DESONOX Type Catalyst Supported on Montmorillonite and Zeolite** — Marcewicz-Kuba A. and Olszewska D.
- 49 **Application of Semiconductor Pt/SnO₂-based Sensor to Investigation of CO Oxidation Reaction** — Szychowska A., Chylak I., Wróbel-Jędrzejewska M., Kocemba I. and Rynkowski J.
- 57 **The Electrical Double Layer at the Hydroxyapatite/NaClO₄ Solution Interface** — Janusz W., Skwarek E., Złotucha A. and Reszka M.
- 69 **The Influence of Reduction Pretreatment of Pt/SnO₂ Catalysts on the Catalytic Performance in CO Oxidation** — Chylak I., Szychowska A., Kocemba I. and Rynkowski J.
- 77 **Fractioning of Trace Metals in Sewage Sludge** — Dobrowolski R., Reszko-Zygmunt J. and Kuryło M.
- 85 **Interaction of Pyridoxine with Hydrophilic-Hydrophobic Highly Dispersed Silica** — Laguta I., Stavinskaya O., Kuzema P. and Kazakova O.
- 93 **Formation of Protective Coating on Amorphous Metallic Surfaces by Controlled Adsorption of Functional Oligoperoxides from Aqueous Solutions** — Kovbuz M.O., Hertsyk O.M., Mitina N.E., Khimyak Y.Z. and Bednarska L.M.
- 101 **Zeolites as the Modern Catalysts for the High Octane Gasoline Component Production** — Patrylak K.I., Patrylak L.K., Ionin V.O., Voloshyna Yu.G., Skubiszewska-Zięba J. and Repetskyi I.A.
- 107 **Photocatalytic Activity of TiO₂ Powders and CdS Nanoparticles in the Destruction of Dyes. Influence of Alcohol Presence** — Khalyavka T.A., Kapinus E.I. and Viktorova T.I.
- 113 **Cobalt Containing Zeolite Systems: Red-ox Properties and Catalytic Activity** — Lutsenko L.V., Oleksenko L.P. and Chen Yue
- 121 **The Electrochemical Oxidation of Selected Antioxidants at a Glassy Carbon Electrode in Microemulsions** — Szymula M. and Narkiewicz-Michałek J.
- 131 **Application of the Molecular Sieves as Matrices for Chromophores Embedded in Their Cages** — Kowalak S. and Jankowska A.
- 141 **Effect of NO, O₂, SO₂ on Nitrous Oxide Conversion over Fe- and Co-containing Zeolite and Zirconia Catalysts** — Boichuk T.M. and Orlyk S.M.
- 149 **Preparation of Mineral-Carbon Adsorbents from Flotation Tailings Using the Spherical Agglomeration Technique** — Polowczyk I., Sadowski Z., Drag E. and Bastrzyk A.
- 159 **Temperature Dependence of Polyacrylic Acid Adsorption on the Alumina Surface. Free Energy of Polymer Adsorption** — Wiśniewska M.
- 171 **Kinetic Study of Hydrogenation of Nitrate over Pd-In/Al₂O₃ Catalysts** — Witonska I., Karski S. and Krawczyk N.
- 179 **Temperature Dependence of Hammett Acidity for H-Y Faujasite** — Brei V.V., Shistka D.V. and Telbiz G.M.

- 183 **On the Influence of Chemical Modification of Silica on Its Porous Structure under Solvothermal Conditions** — Sidorchuk V.V., Skubiszewska-Zięba J., Charmas B. and Leboda R.
- 191 **Oxidative Dehydrogenation of Propane over Mechanochemically Activated V_2O_5 - Cr_2O_3 System** — Wieczorek-Ciurowa K., Gomulczak A. and Zazhigalov V.A.
- 199 **A Role of Sulphur Dioxide Adsorption on Zeolite DESONOX Catalysts as the Factor Influencing Sulphur Dioxide Removal from Exhaust Gases** — Olszewska D. and Marcewicz-Kuba A.
- 205 **Effect of Block Copolymer Type on Formation of Mesoporous Silica Structure** — Deryło-Marczewska A., Marczewski A.W., Skrzypek I. and Pikus S.
- 213 **Influence of Au/Fe_2O_3 and Au/TiO_2 Catalysts Preparation on Their Activity in CO Oxidation by Oxygen and Water Gas Shift Reactions** — Józwiak W.K., Kaczmarek E. and Ignaczak W.
- 223 **Ionic Liquids as New Components of the Membrane of Strontium Ion-Selective Electrodes** — Wardak C., Lenik J. and Marczewska B.
- 235 **Characterization of the Methacrylate Copolymers with the Use of Inverse Gas Chromatography** — Maciejewska M., Gawdzik B. and Grochowicz M.
- 241 **Structure Correlated Parameters and Their Influence on the Bioactivity of Compounds** — Persona M., Geça T., Persona A., Richtr V. and Kraitr M.
- 249 **Biosorption of Uranium on Immobilized Microalgae** — Tobilko V., Lypskiy V., Kovalchuk I., Spasonova L. and Kornilovich B.
- 255 **Study of the Trace Palladium Enrichment Mechanism on Modified Activated Carbons with Respect to Analytical Applications** — Dobrowolski R., Kuryło M. and Reszko-Zygmunt J.
- 263 **Synthesis and Characterization of Bimetallic Ag-Mn-MCM-41 Materials** — Deryło-Marczewska A., Gac W., Popivnyak N., Żukociński G. and Pasieczna-Patkowska S.
- 271 **Kinetics and Equilibrium of Adsorption of Dissociating Solutes from Aqueous Solutions on Mesoporous Carbons** — Marczewski A.W.
- 283 **Estimation of Features of Activated Carbon Materials Used for Drinking Water Purification** — Klymenko N.A., Savchyna L.A. and Kozyatnyk I.P.
- 291 **Cu-Co-Fe Oxide Catalysts Supported on Carbon Nanotubes in the Reaction of CO Oxidation** — Ischenko E.V., Yatsimirsky V.K., Dyachenko A.G., Borysenko M.V., Prilutskiy E.V. and Kongurova I.V.
- 299 **Influence of Synthesis Conditions on the Structure of Mesoporous Silicas Containing Thiourea Functional Group** — Gona O.I., Zub Yu.L., Yaroshenko N.A. and Goworek J.
- 307 **Application of GC and GC-MS for the Identification of Fatty Acids in *Absidia coerulea*** — Brzezowska E. and Fordonski W.
- 313 **Comparison of Accumulation Ability of Toxicologically Important Metals in Caps and Stalks in Chosen Mushrooms** — Szyrkowska M.I., Pawlaczyk A., Albińska J. and Paryjczak T.
- 321 **Studies of Bioindicators in Determination of Environmental Degradation Degree** — Szyrkowska M.I., Pawlaczyk A. and Paryjczak T.
- 329 **On the Theoretical Development and the Applicability of the Lagergren Equation for the Kinetics of Adsorption at the Solid/Solution Interfaces** — Rudzinski W. and Plazinski W.
- 339 **Porosity of Silica Gels from Isobars of Desorption** — Stefaniak W., Goworek J. and Zamojska E.
- 345 **Catalysis of 1-Octene Hydroperoxide Epoxidation Reaction by Metal Disilicides** — Makota O.I. and Trach Yu.B.
- 353 **Artificial Soils and Fertilizers on the Basis of Clinoptilolite and Their Properties** — Milyovich S.S., Gomonay V.I., Gorajevskiy L.Yu., Plastunyak I.M. and Leboda R.
- 361 **Physical and Chemical Criteria for Pesticides Determination and Risk Assessment in Ecosystem** — Kavetsky V.M. and Ryzhenko N.O.

- 371 **Methane Oxidative Conversion over the Composites of Y- and Sc-stabilized Zirconia Based**
— Shashkova T.K., Kantserova M.R., Chedryk V.I., Vasylyev O.D. and Orlyk S.N.
- 377 **Biosynthesis of Colloidal-Silver Particles Using Microorganisms** — Sadowski Z.,
Maliszewska I., Polowczyk I., Koźlecki T. and Grochowalska B.
- 383 **Studies of Adsorption and Porosity Properties of Carbon-Covered Alumina Surface**
— Staszczuk P., Sternik D., Błachnio M., Lin L. and Zhu Y.X.
- 397 **Gas Chromatography Analysis of Reaction Mixtures from Cycloaddition Reaction of**
 α -Ethylacroleine and Ethyl Ester α -Ethylacrylic Acid — Karpyak N.M., Polyuzhyn I.P.,
Marshalok G.O. and Yatchyshyn Y.Y.
- 403 **The Water as a Heterogeneous Cluster Disperse System** — Goncharuk V.V., Bulanova A.E.,
Orehova E.A. and Malyarenko V.V.
- 411 **Impact of Humic Substances on the Secondary Pollution of an Aquatic Environment by**
Heavy Metals and Some Organic Compounds Caused by the Bottom Sediments
— Linnik P.N., Vasylichuk T.O., Osypenko V.P. and Zubko A.V.
- 419 **The Sorption of Long-living Radionuclides ^{90}Sr and ^{137}Cs by Natural Polysaccharides**
— Krasnopyorova A., Yuhno G., Lebedeva L., Sytnik O. and Efimova N.
- 425 **Determination of Residual Monomers in α -Alkylacrylates Dispersions with Packing GLC**
— Marshalok O.I., Voloshinets V.A. and Polyuzhyn I.P.
- 431 **Study of Pd(II) Sorption from Aqueous Solutions on the Natural and Acid-Modified**
Transcarpathian Clinoptilolite — Korkuna O., Vrublevska T. and Reschetilowski W.
- 443 **Adsorption of Mn(II) on Transcarpathian Mordenite** — Vasylechko V.O., Gryschouk G.V.,
Polyans'ka I.I. and Kuzma Yu.B.
- 453 **Development of the Analytic Form of Reagents on the Basis of Silica Gel Impregnated with**
Polyhexamethyleneguanidine Chloride — Trofimchuk A.K., Maglyovana T.V. and
Leshchenko V.N.
- 461 **Complexes of Bismuth(III) on the Surface of Silica Gels, Chemically Modified with Mercapto-**
propyl and N-Allyl-N-propylthiourea Groups — Trofimchuk A.K., Tsyganovich E.A.,
Losev V.N. and Buyko E.V.