Contents

Vol. 84, No. 7, 2011
A simultaneous English language translation of this journal is available from Pleiades Publishing, Ltd.
Distributed worldwide by Springer. *Russian Journal of Applied Chemistry* ISSN 1070-4272

Inorganic Synthesis and Industrial Inorganic Chemistry

Fundamental Aspects of Oxidation of Electroexplosive Nickel Nanopowder
A. V. Korshunov 1129

Preparation of Alkaline Solutions of Niobium(V)
V. G. Maiorov, A. I. Nikolaev, V. K. Kopkov, V. Ya. Kuznetsov, and N. L. Mikhailova 1137

Interaction of Alkaline Solutions of Cyanides with Antimony Sulfides
A. V. Chubarov and T. V. Alekseeva 1141

Study of Magnesium Nitrate Behavior in Sodium Nitrate Solutions at 25°C
O. M. Polishchuk, A. A. Fakeev, N. V. Potapova, and A. G. Vendilo 1148

Sorption of Cesium Radionuclides with Composite Carbon Fibrous Materials
I. V. Sheveleva, V. V. Zheleznov, S. Yu. Bratskaya, V. A. Avramenko, and V. G. Kuryavyi 1152

Physicochemical Studies of Systems and Processes

Thermal Stability of 1,3-Disubstituted Imidazolium Tetrachloroferrates, Magnetic Ionic Liquids
O. E. Zhuravlev, N. V. Verolainen, and L. I. Voronchikhina 1158

Hydroxylation of Fullerenes Modified with Iron Nanoparticles
V. G. Isakova, E. A. Goncharova, O. A. Bayukov, and G. N. Churilov 1165

Effect of Bicarbonate Ions on Photodecomposition of Sodium Dodecyl Sulfate in Aqueous Solutions Containing Hydrogen Peroxide
N. M. Panich, A. F. Seliverstov, and B. G. Ershov 1170

Analysis of Porous Structure of Furfurol-Based Active Carbons with Application of the Density Functional Theory
R. I. Ibragimova, V. V. Gur'yanov, Yu. A. Kukushkina, S. F. Grebennikov, V. V. Sokolov, and N. V. Vorob'ev-Desyatovskii 1174

Applied Electrochemistry and Corrosion Protection of Metals

Silicon Nanopowder as Active Material for Hybrid Electrodes of Lithium-Ion Batteries
S. P. Kuksenko and I. O. Konovalenko 1179

Organic Synthesis and Industrial Organic Chemistry

Synthesis, Physicochemical Characteristics and Properties of Oligomeric Surfactants Based on Pentaerythritol and Propylene Oxide
Z. G. Asadov, R. A. Ragimov, and G. A. Akhmedova 1188

Decomposition of Hydrogen Peroxide in Protic and Polar Aprotic Solvents on TS-1 Heterogeneous Catalyst
V. V. Potekhin, V. A. Kulikova, E. G. Kochina, and V. M. Potekhin 1195

Catalytic Oxidative Acetoxylation of Octa-1,3-dienylbenzene
A. S. Grisha and A. V. de Vekki 1201

Use of Intercalated Clays in Oxidation of Organic Dyes
E. Ts. Dashinamzhilova and S. Ts. Khankhasaeva 1207

Aromatization of Butane over Zirconium-containing and Zinc-zirconia-zeolite Catalysts
D. B. Tagiev, S. B. Agaeva, S. I. Abasov, R. V. Starikov, and F. M. Nasirova 1213

Sorption Purification of Saturated Hydrocarbons to Remove Aromatic Compounds
V. V. Samonin, V. Yu. Nikonova, M. L. Podvyaznikov, and L. V. Grigor'eva 1217

A Catalytic Process for Preparation of Thiophene from Furan and Hydrogen Sulfide
A. V. Mashkina 1223

Dependence of the Burning Temperature of High-Energy Compounds (Empirical Formula $C_mO_{2m}N_n$) on the Enthalpy of Formation and Ratio *m/n*
E. M. Dorofeenko, D. B. Lempert, and G. N. Nechiporenko 1229

Macromolecular Compounds and Polymeric Materials

Thermoanalytical Study of Hydrolytic Lignin
Y. N. Sazanov, E. N. Popova, G. N. Fedorova, and V. E. Yudin 1233

Problems of Solubility of Hydrolysis Lignin
Yu. N. Sazanov, S. M. Krutov, A. V. Gribanov, T. N. Spirina, E. M. Kulikova, G. N. Fedorova, E. N. Popova, I. V. Sumerskii, V. Yu. Elokhovskii, and V. E. Yudin 1238

Unsaturated Oligomers with Perfluorinated Segments as Modifiers of Surface Properties of Powder UV-Curable Oligoether Dimethacrylate Coatings
I. V. Korolev, N. G. Kuzina, and L. N. Mashlyakovskii 1246

Copolymerization of Sodium Acrylate with New Acrylamide Derivatives in the Presence of Water-Soluble Salts
M. L. Eritsyan, Zh. B. Barsegyan, Sh. M. Manukyan, and T. D. Karapetyan 1253

Copolymerization of Acrylic Acid with New Acrylamide Derivatives
M. L. Eritsyan, Zh. B. Barsegyan, R. A. Karamyan, Sh. M. Manukyan, T. D. Karapetyan, and K. A. Martirosyan 1257

Properties of Cellulose Solutions in Methylmorpholine N-Oxide Containing Montmorillonite Nanoparticles and of Composite Films Thereof
A. M. Bochek, N. M. Zabivalova, I. V. Gofman, V. E. Yudin, V. K. Lavrent'ev, and I. V. Abalov 1261

Rheological Properties of Binders Based on Oligoester Urethanes
S. A. Kotel'nikov, A. S. Ermilov, and E. D. Chirkova 1266

Effect of 1,2-Polybutadienes on Properties of Plasticized Polyvinyl Chloride
A. B. Glazyrin, M. I. Abdullin, and B. U. Salikhov 1271

Changes in Electrical and Optical Properties of Polyimide Films under the Action of Accelerated Electrons
S. V. Myakin, A. L. Zagranichek, M. M. Sychev, I. V. Vasil'eva, E. A. Sosnov, N. N. Bochkareva, A. A. Dorofeev, T. A. Zaitseva, and V. N. Lomasov 1276

Chromatographic Study of the Synthesis of Halogenated Unsaturated Polyesters
N. R. Bektashi, A. M. Mustafaev, I. A. Guseinov, S. G. Mustafaev, and V. D. Dzhafarov 1281

Brief Communications

Polymer Sorbents with Hydrazide Moieties for Water Treatment Applications
E. V. Derbisher, E. N. Ovdienko, and V. E. Derbisher 1288

Polymerization of 1,3-Butadiene under the Action of Cobalt Catalyst in an Aliphatic Solvent with Formation of Polymers Suitable for Commercial Use
L. V. Smirnova, I. I. Khamitov, and E. N. Kropacheva 1292

Errata

Erratum: "New Opportunities in Synthesis of Fullerene-containing Polymers of Allyl Series." *Russian Journal of Applied Chemistry*, 84 (5), 854–858 (2011)
N. A. Medvedeva, R. Kh. Yumagulova, I. A. Ionova, S. I. Kuznetsov, and S. V. Kolesov 1297