

Contents

Vol. 90, No. 6, 2020

Colloidal and Nanosized Catalysts in Organic Synthesis: XXIV. Study of Hydrogenation of Furan and Its Derivatives in the Presence of MgO-Supported Nickel and Cobalt Nanoparticles <i>Yu. V. Popov, V. M. Mokhov, D. N. Nebykov, P. M. Shirkhanyan, T. A. Gendler, and V. V. Shemet</i>	931
Synthesis and Some Chemical Transformations of Allylacetylenic 1,3-Dioxane Derivatives <i>M. I. Shatirova and L. I. Gadzhiyeva</i>	936
Synthesis of New Substituted 3-(Thien-2-yl)imino-3H-furan-2-ones <i>S. A. Shipilovskikh and A. E. Rubtsov</i>	943
Reaction of 3-Amino-4,6-diarylthieno[2,3- <i>b</i>]pyridine-2-carboxamides with Ninhydrin <i>V. V. Dotsenko, V. S. Muraviev, D. Yu. Lukina, V. D. Strelkov, N. A. Aksenov, I. V. Aksenova, G. D. Krapivin, and L. V. Dyadyuchenko</i>	948
Synthesis and Electrochemical Properties of 2,5-Disubstituted Derivatives of 1,4-Bis(4,5-diphenylidimidazol-2-yl)benzene <i>A. V. Dolganov, O. Yu. Gants, S. G. Kostyukov, A. V. Balandina, M. K. Pryanichnikova, A. Sh. Kozlov, Yu. I. Lyukshin, A. A. Akhmatova, V. O. Zhirnova, A. D. Yudina, and A. S. Timonina</i>	961
Reactions of Trichlorogermane and Trimethylgermane Etherates with 1,3-Divinyl-1,1,3,3-tetramethyldisiloxane <i>V. G. Lakhtin, A. I. Blagushina, N. V. Ushakov, I. B. Sokol'skaya, I. A. Semyashkina, D. A. Efimenko, I. A. Gritskova, N. G. Komalenkova, and P. A. Storozhenko</i>	968
Spectral and Quantum-Chemical Study of Basicity of Phenyl-Substituted Porphyrinoids <i>D. B. Berezin, A. E. Likhonina, O. V. Shukhto, D. R. Karimov, I. N. Serov, and M. A. Krest'yaninov</i>	977
Pro(anti)oxidant Properties of Amino Acids and Their Derivatives in The Presence of Fe ²⁺ and Cu ²⁺ Ions <i>O. A. Milach, I. V. Mel'sitova, and I. L. Yurkova</i>	987
Protonation of Ferrocene Derivatives with Strong Acids. Kinetic Relationships of the Redox Isomerism of Ferrocenylcarbenium Ions <i>V. M. Fomin, A. V. Markin, and N. N. Shuklina</i>	994
Electrosynthesis of Polymer Complexes of Some Metals with Vinylimidazole <i>S. H. Sargsyan, T. S. Sargsyan, I. G. Agadjanyan, K. M. Khizantsyan, A. S. Sargsyan, and K. S. Margaryan</i>	1002
Reaction of Cyclometalated Phosphine Chloride Iridium(III) Complexes with Imidazole <i>S. A. Chapaikina, A. I. Solomatina, and S. P. Tunik</i>	1005
Extraction of Uranium(VI), Thorium(IV), and Trivalent Rare Earths from Nitric Acid Solutions with {[2-(2-Diphenylphosphoryl)-4-ethylphenoxy]ethyl}diphenylphosphine Oxide <i>A. N. Turanov, V. K. Karandashev, D. V. Baulin, and V. E. Baulin</i>	1012
Solid-Phase Reaction of Tetraammineplatinum(II) Chloride with Ammonium Heptamolybdate <i>E. V. Fesik, T. M. Buslaeva, T. I. Melnikova, and L. S. Tarasova</i>	1020
Synthesis and Thermal Behavior of Bi _{5-x} Ca _x FeTi ₃ O _{15-δ} Solid Solutions <i>N. A. Lomanova, M. V. Tomkovich, A. V. Osipov, V. L. Ugolkov, V. V. Panchuk, and V. G. Semenov</i>	1025
Nanocrystalline Heterogeneous Multiferroics Based on Yttrium Ferrite (Core) with Calcium Zirconate (Titanate) Shell <i>E. I. Kopeychenko, I. Ya. Mittova, N. S. Perov, A. T. Nguyen, V. O. Mittova, Yu. A. Alekhina, and I. V. Salmanov</i>	1030
Relationship of Acid-Base Properties of Cobalt Ferrite with Its Catalytic Activity Towards Nitrogen(I) Oxide Decomposition <i>K. O. Denisova, A. A. Ilyin, R. N. Rumyantsev, and A. P. Ilyin</i>	1036
Empirical Models of Stability of Crown Ether Complexes with Alkaline and Alkaline-Earth Metals in Selected Pure Solvents <i>N. V. Bondarev</i>	1040
Synthesis, Characterization, and Genotoxic Effect of Some Novel Schiff Base–Metal Complexes <i>I. Demir, S. B. Diler, and S. Y. Uçan</i>	1051

Synthesis, Characterization, and Properties of Highly Hydrophilic Polyaniline Sulfonic Acid <i>Zhiqiang Wu, Gang Wang, Shuo Yuan, Haijuan Zhan, Wanyi Liu, Shuxian Bi, Heping Li, Baojun Ma, and Yanyan Sun</i>	1055
New Polysubstituted Pyrazole Derivatives: Synthesis and Cytotoxicity Studies <i>N. M. Khalifa, H. H. Fahmy, E. S. Nossier, M. A. Al-Omar, and A. E. Amr</i>	1062
Synthesis, Characterization, and Antibacterial Activity of Complexes of Hg(II) with Mixtures of 3-Hydrazonoinдолin-2-one, and Diphosphine or Diimine Ligands <i>A. A. Irzoqi, M. M. Salih, H. M. Jirjes, and M. K. Mensoor</i>	1069
Synthesis of Novel Functionalized Pyrano Annulated/Oxazolone Pendent Chromone Derivatives as Potent Anti-Diabetic Agents <i>Y. Jayaprakash Rao and K. Abhijit</i>	1074
4-Connected Self-Penetrating Cobalt(II) Coordination Polymer Based on Flexible Aromatic Carboxylic Acid and 4,4'-Bipyridine <i>F. Y. Ju and S. Li</i>	1083

Short Communications

Synthesis and Antitumor Activity of Piperazine-Based Tertiary Amino Alcohols and Their Dihydrochlorides <i>N. Z. Hakobyan, Z. A. Hovasyan, L. E. Nersesyan, A. S. Agaronyan, I. S. Danielyan, G. A. Panosyan, G. A. Gevorgyan, and A. A. Oganessian</i>	1088
Reaction of 1,4-Benzoquinone with 2-(2-Oxo-2-arylethylidene)-2,3-dihydropyrimidine-4(1 <i>H</i>)-ones <i>A. A. Yavolovskii, L. V. Grishchuk, S. M. Pluzhnik-Gladyr, D. E. Stepanov, Yu. E. Ivanov, and G. L. Kamalov</i>	1093
Effective Synthesis of Dialkyl Z-1,2-Bis[(1,5-R-1 <i>H</i> -imidazol-2-yl)sulfanyl]ethenylphosphonates <i>D. M. Egorov, A. A. Babushkina, Yu. L. Pitereskaya, and A. V. Dogadina</i>	1096
Synthesis of New α -Aminophosphonates Based on Cyclohexylamine <i>A. V. Smolobochkin, A. S. Gazizov, K. A. Doszhanova, A. B. Kuandykova, B. Zh. Jiyembayev, A. R. Burilov, M. A. Pudovik, and R. A. Cherkasov</i>	1100

Selected articles originally published in Russian in *Rossiiskii Khimicheskii Zhurnal* (Russian Chemistry Journal)

Modern Catalysts and Methods of Nonoxidative Methane Conversion <i>D. V. Golinskii, N. V. Vinichenko, E. V. Zatolokina, V. V. Pashkov, E. A. Paukshtis, T. I. Gulyaeva, P. E. Pavlyuchenko, O. V. Krol', and A. S. Belyi</i>	1104
Gas-Phase and Liquid-Phase Hydrogenation of Acetylene in Lean and Enriched Mixtures over Supported Modified Palladium Catalysts <i>D. V. Glyzdova, N. S. Smirnova, D. A. Shlyapin, and P. G. Tsyrl'nikov</i>	1120
Analysis of the State and Development Prospects of the Industrial Catalysts Market for Polyolefins Production <i>I. A. Makaryan and I. V. Sedov</i>	1141
Farm Grain Dryer with a Heat Pump and Its Calculation <i>S. P. Rudobashta, G. A. Zueva, and E. A. Muravleva</i>	1163
Energy- and Resource-Saving Technologies and Equipment in Urea Production <i>Y. A. Sergeev, R. V. Anderzhanov, and A. A. Vorob'ev</i>	1168
Development of a Resource-Saving Technology of Catalysts for Medium-Temperature Conversion of Carbon Monoxide in Ammonia Production <i>A. A. Il'in, R. N. Rumyantsev, M. A. Lapshin, A. P. Il'in, D. S. Popov, and A. A. Chuyasova</i>	1173
Investigation of the Quality of the Mixture at the First Stage of Operation of a Gravitational Apparatus <i>A. B. Kapranova, I. I. Verloka, P. A. Yakovlev, and D. D. Bahaeva</i>	1178