

Contents

Vol. 52, No. 2, 2018

A simultaneous English language translation of this journal is available from Pleiades Publishing, Ltd.
Distributed worldwide by Springer. *High Energy Chemistry* ISSN 0018-1439.

Photochemistry

Photochemical Properties of 1-(9-Phehanthryl)-2-(2-Quinolyl)ethylene

M. F. Budyka and V. M. Li

103

Formation of Chiral Structures in Photoinitiated Formose Reaction

*S. V. Stovbun, A. A. Skoblin, A. M. Zanin, V. A. Tverdislov,
O. P. Taran, and V. N. Parmon*

108

Photonics

Primary Photoprocesses In Thionine in Supramolecular Complexes
with Cucurbit[7,8]urils in Water

L. S. Atabekyan, V. G. Avakyan, G. V. Zakharova, and A. K. Chibisov

117

Chemiluminescent Method for Determination of Rate Constants for Reactions
of Triplet Aromatic Nitrenes

V. A. Shamukaev, E. M. Chainikova, A. M. Idrisova, and R. L. Safiullin

123

Effect of Photo- and Thermoactivation of CdSe Cores on the Luminescent Properties
of CdSe@CdS Colloidal Quantum Dots

S. B. Brichkin, M. G. Spirin, and V. F. Razumov

131

Radiation Chemistry

Study of Gamma-Irradiated Polyamide Using Thermomechanical Spectrometry and
Radiothermoluminescence

Yu. A. Olkhov, S. R. Allayarov, V. G. Nikolskii, and M. K. Asamov

138

Radiation-Induced Heterogeneous Processes of Water Decomposition in the Presence
of Mixtures of Silica and Zirconia Nanoparticles

T. N. Agaev, A. A. Garibov, S. Z. Melikova, and G. T. Imanova

145

Effect of γ -Radiation on the Structural and Conducting Properties of Copper Nanotubes

A. L. Kozlovskii and M. V. Zdrovets

152

Nanosized and Supramolecular Systems

Structure and Dynamics of Ternary Complexes of Cucurbit[8]uril with Spin-Labeled Indicators
and Biologically Active Analytes

V. A. Livshits, B. B. Meshkov, R. F. Gabidinova, V. G. Avakyan, and M. V. Alfimov

157

Plasma Chemistry

Simulation of the Kinetics of Methane Conversion in the Presence of Water
in a Barrier Discharge

S. V. Kudryashov, A. Yu. Ryabov, and A. N. Ochered'ko

167

Hydrogen Peroxide Formation in Boiling Water Plasma of Electrolyte-Cathode Discharge

E. S. Bobkova, A. V. Tatarinov, E. V. Ivanov, and P. A. Gushchin

171

**Study of the Influence of Nonequilibrium Dielectric-Barrier Discharge Plasma
on the Valence State of Transition Metals in Aqueous Solutions**

*R. V. Yakushin, V. A. Kolesnikov, V. A. Brodskiy, E. N. Ofitserov, A. V. Chistolinov,
A. V. Perfil'eva, I. N. Solov'eva, and G. I. Kandelaki*

183

**Synthesis of ^{28}SiC from $^{28}\text{SiF}_4$ and Methane in Radiofrequency (13.56 MHz) Arc
Hydrogen Plasma**

R. A. Kornev, P. G. Sennikov, V. V. Nazarov, A. D. Bulanov, and A. M. Potapov

189

**Short Communications
Photochemistry**

On the Photolysis of Barium Thiosulfate

N. B. Egorov, E. A. Popova, and O. Kh. Poleshchuk

194

Photolysis of Doped Gallium Nitride

T. K. Zubenko, I. A. Ermakov, A. S. Usikov, and M. V. Puzyk

196
