

COLLECTED SCIENTIFIC TRANSACTIONS

# NANOSISTEMI, NANOMATERIALI, NANOTEHNOLOGII

FOUNDED IN OCTOBER, 2003

Volume 15, Issue 4 (2017)

## CONTENTS

<b>Editorial Announcements</b>	Information for Subscribers	VIII
	Information for Contributors	XI
	Publication Ethics	XIV
	Aggregation of Squaraine Dyes in the Deposited Films <i>O. L. PAVLENKO, V. A. BRUSENTOV, O. P. DMYTRENKO, M. M. SERYK, V. A. SENDIUK, M. P. KULISH, A. M. GAPONOV, Yu. L. SLOMINSKYY, V. V. KURDYUKOV, and O. D. KACHKOVSKY</i>	589
	Construction and Study of Model of Slow Electron Transport and Conformational Changes in Molecules of the Bacterial Reaction Centres <i>M. A. DRAPIKOVSKIY, M. A. ZABOLOTNYI, Yu. M. BARABASH, M. P. KULISH, and O. P. DMYTRENKO</i>	599
	Laser Optoacoustical Method for Investigation of Some Physical Properties of Oil and Petroleum <i>M. A. MUSAYEV and I. I. ABBASOV</i>	611
	The Effect of Lithium Perchlorate on the Structure of Epoxy Resin Composites <i>L. MATKOVSKA, I. TKACHENKO, V. DEMCHENKO, M. IURZHENKO, and Ye. MAMUNYA</i>	619
	Investigation of the Aluminium Melting Processes <i>A. B. MELNICK and V. K. SOOLZHENKO</i>	629
	Influence of the Viscosity Modifier in H <sub>2</sub> O <sub>2</sub> -HBr- Ethylene Glycol Solutions on the Chemical Etching of PbTe Single Crystals and Pb <sub>1-x</sub> Sn <sub>x</sub> Te Solid Solutions <i>G. P. MALANYCH and V. M. TOMASHYK</i>	637
	Formation of Apatite-Like Layer on the Surface of Nanostructured Calcium-Phosphate-Silicate Coatings on Titanium Alloys <i>O. V. SAVVOVA and O. I. FESENKO</i>	649

Photocatalytic Properties of Anatase/Brookite Nanocomposite <i>V. O. KOTSYUBYNSKY, A. B. HRUBIAK, B. K. OSTAFIYCHUK, M. A. HODLEVSKA, S. I. VOROBIOV, V. V. MOKLYAK, and S. V. FEDORCHENKO</i>	663
Plate-Like LiFePO <sub>4</sub> Nanoparticles: Synthesis, Structure, Electrochemistry <i>V. O. KOTSYUBYNSKY, B. K. OSTAFIYCHUK, R. P. LISOVSKY, V. V. MOKLYAK, A. B. HRUBIAK, I. I. HRYHORUK, and Al-Saedi Abdul Halek ZAMIL</i>	675
Electronic Transport Phenomena of Electric Charge in Semiconductors Ni <sub>1-x</sub> Cd <sub>x</sub> Fe <sub>2</sub> O <sub>4</sub> <i>V. S. BUSHKOVA and B. K. OSTAFIYCHUK</i>	687
The Peculiarities of Contact Potential Difference and Energy Characteristics of Metal Boundaries <i>V. M. YUZEVICH, B. P. KOMAN, and R. DZHALA</i>	703
Nanostructured Anodic Oxide Coatings on Valve Metals—Challenges and Opportunities <i>I. A. TOKARIEVA and B. I. BAYRACHNY</i>	713
Formation and Properties of MoS <sub>2</sub> /C Composite for Lithium Current Sources <i>L. S. YABLON, I. M. BUDZULYAK, O. V. MORUSHKO, R. V. ILNYTHKY, O. M. HEMIY, and A. I. KACHMAR</i>	741
Spectroscopy of Amorphous Carbon on the Glass Substrate and on the Thin Copper Layer <i>M. Yu. BARABASH, A. A. KOLESNICHENKO, and D. S. LEONOV</i>	757

Scientific Editor of Issue—*V. A. Tatarenko*

Executive Managing Editor—*V. A. Tatarenko*

Technical Editor—*D. S. Leonov*

Editorial-Publishing Department, G. V. Kurdyumov Institute for Metal Physics, N.A.S. of Ukraine

---

Editorial Office: 36 Academician Vernadsky Boulevard, UA-03142 Kyiv, Ukraine

Telephone: +380 44 4229551, +380 44 4249042, +380 44 4241221. Fax: +380 44 4242561

E-mail: tatar@imp.kiev.ua; dsleonov@gmail.com