

CONTENTS

NUMBER 3

2006

SURFACE ENGINEERING AND APPLIED ELECTROCHEMISTRY

PAGES
RUSSIAN/ENGLISH

Electrical Precision Treatment of Materials

Precision electrochemical deposition: kinetics of nanopore filling in template synthesis. P. G. Globa, S. P. Sidel'nikova, A. I. Dikusar, E. A. Zasavitskii, and V. G. Kantser	92	1
Permanent electric-discharge marking of machine parts. III. Corrosional fatigue tests of marked samples. B. A. Gryaznov, Yu. S. Nalimov, V. E. Ryabtsev, O. N. Gerasimchuk, P. P. Malyushevskii, and T. V. Hoeydal	101	11

Electrical Surface-Treatment Methods

Electrospark alloying of titanium and its alloys. V. V. Mihailov, E. A. Pasincavschii, P. V. Pereteatcu, and C. A. Baciu	106	16
Electrochemical behavior of anode materials in iron-plating electrolytes. Zh. I. Bobanova and V. I. Petrenko	112	22

Electrical Processes in Engineering and Chemistry

Physical aspects of electrohydrodynamic phenomena. M. K. Bologna and F. P. Grosu	118	28
Electrical treatment of natural sorbents. V. I. Zelentsov and T. Ya. Datsko	128	38
Suppression of steel corrosion in electrochemical shaping. V. V. Parshutin, V. G. Revenko, and N. S. Sholtoyan	138	48
Influence of gas-phase processes initiated by a glow discharge on the properties of electrolyte solutions. L. A. Kuz'micheva, Ya. V. Titova, and A. I. Maksimov	148	58
Synthesis of artificial diamonds by the electrical explosion of graphite wire in liquid. N. I. Kuskova, V. I. Gordienko, E. P. Razmenov, and S. A. Khainatskii	153	64
Radiation spectroscopy of collective charge-carrier excitations in flexible-chain polymers. A. Ya. Bomba, Yu. E. Klimyuk, V. V. Klepko, E. V. Lebedev, and B. B. Kolupaev	161	72
Purposeful regulation of the thermoelectret effect in poly(vinylchloride) systems. V. V. Krivtsov and B. S. Kolupaev	167	79

Operating Experience

Antifiltrational electroosmotic screens in the soil. E. A. Ivliev and V. V. Lipatov	182	85
Ferromagnetic-resonance study of a microwire. S. A. Baranov and S. S. Stoyanov	191	94

Pulsed-discharge finishing of precision castings. T. D. Denisyuk and A. R. Rizun	196	99
Formation of high-spin molecular manganese clusters in a monocrystalline silicon matrix and the associated positive magnetic reluctance. E. U. Arzikulov and Zh. T. Ruzimurodov	199	102

Information

Electrochemicothermal treatment of metals and alloys (by P. N. Belkin): a review. A. I. Dikumar	204	106
--	-----	-----