

# CONTENTS

NUMBER 2

2006

## SURFACE ENGINEERING AND APPLIED ELECTROCHEMISTRY

PAGES  
RUSSIAN/ENGLISH

### Precision Electrical Machining of Materials

Development of the electrodischarge method for the permanent marking of machine parts (Part II. Experimental studies of the hard spots in the mark elements). P. P. Malyushevskii, V. G. Sysoev, A. I. Ivliev, A. P. Malyushevskaya, M. Yu. Komarov, V. E. Ryabtsev, A. P. Malyushevskii, and T. V. Hoeydal .....	4	1
---	---	---

### Electrical Surface Treatment Methods

Temporal parameters of the vibrating electrode in electrosark alloying conditions. A. M. Paramonov, E. A. Pasinovskii, V. P. Usenko, and A. V. Koval.....	9	7
---	---	---

### Electrical Processes in Engineering and Chemistry

Studies of electric charge transfer to dielectric fluid drops in a corona discharge field. V. S. Nagorny ..... 13	12	
Experimental studies of electrodischarge breakup of high-strength seabed formations. A. R. Rizun, Yu. V. Golen, and G. P. Mushtatnyi .....	20	19
Hydrodynamic parameters of electric discharges in a liquid with two-pulse energy input. G. A. Barbashova, A. I. Vovchenko, L. A. Kamenskaya, and V. V. Shomko .....	23	22
Model of the moisture, temperature, and dc fields in the ground. S. A. Lavrov and V. V. Lipatov .....	30	29
On fracturing the strong deposits in cleaning tubes by electric discharges. Zh. N. Ishchenko .....	37	37
Influence of gamma radiation on the deformation of silk filament after pre-treatment by various methods. R. S. Ismayilova .....	44	45
Post-effects of plasma modification of polypropylene in nitrogen. E. V. Kuvaldina, D. A. Shutov, and V. V. Rybkin .....	47	48
Nature of the realization of the electric discharge in composite materials with conductivity from 10 to 10 <sup>5</sup> Sm/m. N. I. Kuskova, Zh. N. Ishchenko, and S. A. Khainatskii.....	53	54

### Equipment and Instrumentation

Selecting the parameters of the pulse sources for restoring the operating effectiveness of deferritization filters of underground water intakes. O. Yu. Goncharov, V. I. Kurets, V. V. Lopatin, and V. M. Muratov.....	65	60
--	----	----

## Operating Experience

Use of clinoptilolite in water defluorination under the action of an electric discharge. M. A. Gasanov, A. M. Gashimov, K. B. Gurbanov, and R. N. Mekhtizade.....	71	66
Domain wall movement in the cast amorphous microwire. S. A. Baranov, G. V. Karimova, and G. V. Lomaev .....	77	73