

1998, □ 4

Contents

IN COMMEMORATION of the 80th anniversary of National Academy of science of Ukraine _____
3

Electrodynamics of electrical power devices

PODOLTSEV A.D., KUCHERYAVAYA I.N. Mathematical modelling of MHD-processes at a melted

metal stirring in a double work-coil magnetic field _____ 7

GORISLAVETS Yu.M. Electromagnetic systems of a liquid metal rotary motion for

submerged-resistor induction
furnaces _____ 12

SIDORETS V.N. Structures of bifurcational diagrams of an electric arc circuit _____
_____ 15

BARANOV M.I., BONDINA N.N., BOCHAROV V.A. Non-linear electric-heat problem

simulation for cylindrical isotropic current conductors of electrophysical installations at big pulse

current
obtaining _____
19

Conversion of electric energy parameters

SHIDLOVSKY A.K., MOSKALENKO G.O., MOSTOVYAK D.I. Conditions for electromagnetic

compatibility circles synthesis of a universal static converter _____
_____ 23

DENISOV Yu.A. Static characteristics of a quasiresonance pulse converter as a stabilizer

controllable
element _____ 26

ZHUIKOV V.Ya., PETERGERYA Yu.S. New idea of control systems construction of electric

energy
converters _____
33

VYPANASENKO S.I., ATIF MAMUN AVAD Analysis of an output current of a resonance
inverter

with a reverse
diode _____ 38

SCHERBAK Ya.V. Pulsation factor of multicircuit discrete systems of automatic
control _____ 41

VOLKOV I.V., GUBAREVICH V.N., SPIRIN V.M. Stability of a current source-electric arc
system

with a negative incremental
resistance _____ 43

CHIZHENKO A.I. Analysis of steady-state electromagnetic processes in a single-phase valve

bridge controllable source of reactive power at restricted values of throttle inductance in a rectified

current
circuit _____
46

AKIMOV L.V., DOLBNYA V.T., KOLOTILO V.I. Dynamics of a triple-integrating speed of a

subordinate regulation system (SRS) with full and reduced order state observers _____ 52

PEREVERZEV A.V., IVASHUTKIN K.E. "Intelligent" module for electric drive of electromagnetic

reduction
motor _____ 6
3

Electromechanical energy conversion

MAZURENKO L.I. Asynchronous generators with valve converters excitation in stator circuits _____
66

VERBOVOI A.P., VERBOVOI P.F. Inductance factor determination of equivalent windings

of ferromagnetic cores, stacks and screens

71

BELYI P.N. Moment magnetoelectric motor of disk construction"

74

Brief reports

CHERNYSHOV N.N. Approximate calculation of constant magnets volume by a required rigidity

of system elements for vibration equipment control

78

To the memory of Grigoriy Ivanovich Denisenko

80

