

2002, □ 1

CONTENTS

Theoretical electrical engineering and electrophysics

SHIDLOVSKA NA., FEDOZA O.O. Analysis of intercommunication possibility between different

notations of a direct L-section passive four-terminal network with non-linear
elements _____ 3

ROZOV V.Yu. Selective compensation of spatial harmonics of a magnetic field of power
saturated

installations _____
_____ 8

Conversion of electric energy parameters

KOMAROV N.S., MONZHERAN Yu.P. Three-phase high-frequency inverters in power supply

sources operating into arc load _____
_____ 14

ZHARKIN A.F. Power consumption analysis of a pulse power supply source of electronics _____
_____ 19

PENTEGOV I.V., RYMAR S.V., STEMKOVSKY E.P. Optimization mathematical model

of a three-phase transformer and its computation variant choice at multicriteria optimization _____
_____ 22

FEDYCZAK Z., STRZELECKIR., KLYTTA M. Single-phase AC/AC semiconductor transformer

topologies and applications _____
_____ 29

Electromechanical energy conversion

VOITEKH O.A., ONOPRICH V.P., RAKITSKY L.B., GOGAEV K.O., NEPOMNJASCHY V.V.
Designing

of asynchronous motors made with application of different conducting and new magnetic materials _____
35

Electric power systems and installations

KUZNETSOV V.G. Mathematical models of asymmetrical modes of power networks at random character of load parameters change _____
_____ 39

KURENNIY E.G., DMITRIEVA E.N. Generalized mathematical model of nonsinusoidal processes in power supply systems _____
_____ 44

PARANCHUK Ya.S. Improvement of compensation efficiency of reactive power of an arc steel melting furnace _____
_____ 48

VAS'KO V.P. Electric energy parameters control of autonomous wind electric

installations_____ 53

VAS'KO P.F. Analysis of wind velocity measurements results in southern regions of Ukraine

during 1992—2000 according to wind-power engineering
problems_____ 56

Electrotechnological complexes and systems

ANDRIYCHUK VA., GERIY R.Ya. Lighting engineering computation of a radiating installation_____
61

Information measuring systems in power engineering

NEBOLJUBOV E.Yu., NOVIK A.I., SMIRNOV V.P., FESCHENKO NA. Measurement circuit
of a universal electronic converter_____ 65

SEBKO V.P., BONDARENKO V.E. Contactless vortex-current control of a diameter and specific

electrical resistance of power line
wires_____ 69

News from the Highest Certifying Commission of
Ukraine_____ 73

Abstracts