

CONTENTS

VOLUME 42

NUMBER 2

2006

APPLIED SOLAR ENERGY

	Pages	
	Russian	English
<u>Direct Conversion of Solar Energy into Electric Energy</u>		
Optical Characteristics and Thermodynamics of Solar Thermophotoconverters with Selective Radiation Collectors and Converters. V. M. Evdokimov	3	1
Influence of Concentrated Solar Radiation on the Impurity Photovoltaic Effect. M. S. Saidov	15	11
Ultrasound Treatment of Solar Cells Exposed to γ -Radiation. N. A. Guseinov, Ya. M. Olikh, Sh. G. Askerov, M. N. Agaev, and V. G. Safarov	17	14
Phosphorus-Doped Silicon Solar Cells. M. N. Tursunov, S. Dadamukhamedov, M. S. Yakubova, A. Yarbekov, O.M. Tursunkulov, and O.F. Tukfatullin	22	18
Silicon Solar Cell Short-Circuit Current as Super- and Sublinear Functions of Illumination Intensity. K. T. Suyarov and S. Zh. Karazhanov	26	21
<u>Solar Units and Their Application</u>		
Charge Carrier Concentration Optimization of the Solar Thermoelectric Generator Arm. O. I. Markov	31	25
Efficiency of Solar Collectors with Selective Receivers. Sh. I. Klychev, A.A. Abdurakhmanov, and S. A. Bakhramov	36	29
Modeling Heat- and Mass-Exchange Processes in a Solar Dryer with Subsoil Heat Storage. B. E. Khairiddinov, V. D. Kim, and N. S. Kholmiraev	41	33
Heat Transfer from Cylindrical Turbulators of Solar Air Heaters. E. S. Abbasov and M. A. Umurzakova	46	38
Heat-Exchange Exergy Analysis for the Outer Heat-Exchange Circuit of the Stirling-Engine Power Unit. I. G. Kenzhaev	49	41
Solar Energy Conversion Efficiency in Photosynthesis Reaction Centers under Concurrent Photoinactivation and Photoprotection. E. A. Zakhidov, M. A. Zakhidova, and Sh. K. Nematov	53	44
<u>Solar Heat and Cold Supply, Storage</u>		
Thermal Efficiency of Compound Transparent Cover of Passive Insolation Systems of Solar Heating with Partially Light-Absorbing Layers. R. R. Avezova and K. A. Samiev	60	50
Thermal Efficiency of a Heat Storage for Solar Hot-Water Supply Systems. N. R. Avezova	67	56

Solar Materials Science

Computer Modeling of Recombination-Induced Processes in the Photocell Material. A. Yu. Leiderman and A. A. Fridman	72.....	60
The Effect of CdS Impurity on Silicon Photosensitivity. A. S. Saidov, Sh. N. Usmonov, K. T. Kholikov, M. S. Saidov, and D. Saparov	77.....	64
Short-Circuit Current Temperature Spectrum of the CdTe:In Photovoltaic Film. M. A. Karimov	80.....	67

Renewable Energy Sources

Photosynthesis Energy Conversion by the Forage_Livestock_Biogas Unit Scheme. B. F. Rakhmatov	83.....	70
---	---------	----