

TABLE OF CONTENT:

<i>A. P. Chebanenko, L. M. Filevska, V. A. Smyntyna, N. S. Simanovich, V. S. Grinevych</i> THE HUMIDITY AND STRUCTURING ADDITIVES INFLUENCE ON ELECTROPHYSICAL CHARACTERISTICS OF TIN DIOXIDE FILMS.....	5
<i>A. V. Glushkov, V. B. Ternovsky, A. A. Svinarenko, A. V. Smirnov</i> GAUGE-INVARIANT RELATIVISTIC PERTURBATION THEORY APPROACH TO DETERMINATION OF ENERGY and SPECTRAL CHARACTERISTICS FOR HEAVY AND SUPERHEAVY ATOMS AND IONS: REVIEW.....	11
<i>O. Yu. Khetselius, A. V. Glushkov, V. V. Buyadzhi, Yu. Ya. Bunyakova</i> NEW NONLINEAR CHAOS-DYNAMICAL ANALYSIS OF ATMOSPHERIC RADON ²²² Rn CONCENTRATION TIME SERIES FROM BETA PARTICLES ACTIVITY DATA OF RADON MONITORS.....	29
<i>Yu. A. Nitsuk, Yu. F. Vaksman, I. V. Tepliakova, A. A. Rimashevskiy</i> SYNTHESIS AND LUMINESCENCE PROPERTIES OF ZnSe:Al NANOPARTICLES	41
<i>V. F. Mansarliysky, E. V. Ternovsky, A. V. Ignatenko, E. L. Ponomarenko</i> OPTIMIZED RELATIVISTIC DIRAC-FOCK APPROACH TO CALCULATING THE HYPERFINE LINE SHIFT AND BROADENING FOR HEAVY ATOMS IN THE BUFFER GAS	46
<i>Yu. V. Dubrovskaya, A. A. Kuznetsova, A. S. Kvasikova, T. N. Sakun</i> SPECTROSCOPY OF COOPERATIVE ELECTRON- γ -NUCLEAR EFFECTS IN MULTIATOMIC MOLECULES: MOLECULE XY ₄	55
<i>Ie. V. Brytavskiy, A. V. Tereshchenko, V. B. Myndrul, M. M. Pavlenko, V. A. Smyntyna</i> SILICON NANOPILLARS FORMING AND COVERING BY Zn AND Ti OXIDES FOR SOLAR ENERGY APPLICATIONS AND BIOSENSORICS.....	62
<i>I. N. Serga, O. Yu. Khetselius, L. A. Vitavetskaya, A. N. Bystriantseva</i> RELATIVISTIC THEORY OF SPECTRA OF THE PIONIC ATOMIC SYSTEM ²⁰⁸ Pb WITH ACCOUNT OF STRONG PION-NUCLEAR INTERACTION EFFECTS:	68
<i>A. A. Kuznetsova, Yu. V. Dubrovskaya, A. V. Glushkov, Ya. I. Lepikh</i> ADVANCED GREEN'S FUNCTIONS AND DENSITY FUNCTIONAL APPROACH TO VIBRATIONAL STRUCTURE IN THE PHOTOELECTRON SPECTRA OF DIATOMIC MOLECULE	78
<i>A. O. Karpenko</i> A METHOD FOR LOWERING THE LEVEL OF THE ELECTROMAGNETIC WAVES BACKGROUND RADIATION OF HORN RADIATOR.....	88

<i>V. V. Buyadzhi, Yu. G. Chernyakova, O. A. Antoshkina, T. B. Tkach</i> SPECTROSCOPY OF MULTICHARGED IONS IN PLASMAS: OSCILLATOR STRENGTHS OF Be-LIKE ION Fe.....	94
<i>V. B. Ternovsky, M. Yu. Gurskaya, A. A. Svinarenko, V. F. Mansarliysky</i> THEORETICAL STUDYING SPECTRA OF YTTERBIUM ATOM ON THE BASIS OF RELATIVISTIC MANY-BODY PERTURBATION THEORY: RYDBERG RESONANCES	103
<i>A. V. Smirnov, O. Yu. Khetselius, V. V. Buyadzhi, A. S. Belodonov</i> ADVANCED RELATIVISTIC APPROACH IN SPECTROSCOPY OF COMPLEX AUTOIONIZATION RESONANCES IN ATOMIC SPECTRA.....	114
<i>N. S. Simanovych, Ye. V. Brytavskiy, M. I. Kutalova, V. A. Borshchak, Y. N. Karakis</i> THE STUDY OF HETEROGENEOUS SENSITIZED CRYSTALS OF CADMIUM SULFIDE. PART I ABOUT CHARGE OF THE CENTERS RECOMBINATION.....	124
<i>E. V. Ternovsky, O. A. Antoshkina, T. A. Florko, T. B. Tkach</i> RELATIVISTIC CALCULATION OF OSCILLATOR STRENGTHS OF THE RADIATION TRANSITIONS BETWEEN BARIUM RYDBERG STATES.....	139
<i>M. Yu. Gurskaya, A. V. Ignatenko, A. S. Kvasikova, A. A. Buyadzhi</i> ADVANCED DATA FOR HYDROGEN ATOM IN CROSSED ELECTRIC AND MAGNETIC FIELDS	148
<i>O. O. Ptashchenko, F. O. Ptashchenko, V. R. Gilmudinova</i> EFFECT OF WATER VAPORS ON THE TIME-RESOLVED SURFACE CURRENT INDUCED BY AMMONIA MOLECULES ADSORPTION IN GaAs P-N JUNCTIONS	156
ІНФОРМАЦІЯ ДЛЯ АВТОРІВ НАУКОВОГО ЗБІРНИКА «PHOTOELECTRONICS»	158
ИНФОРМАЦИЯ ДЛЯ АВТОРОВ НАУЧНОГО СБОРНИКА «PHOTOELECTRONICS»	159
INFORMATION FOR CONTRIBUTORS OF “PHOTOELECTRONICS” ARTICLES.....	160