POSTER I

PI-01 **MAGNETIC FIELD EFFECTS ON THE TERAHERTZ EMISSION OF INSB AND GaAs**

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PI-02 **PROPERTIES OF LIGAND IN ALUMINOSILICATE GLASS BY USING Dy^{3+} PROBES**

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PI-03 **OBSERVATION OF ATOMIC AND MOLECULAR ORBITAL STRUCTURE FROM TRANSVERSE MOMENTUM DISTRIBUTION**

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PI-04 **INVARIANT METHOD FOR EVALUATING THE COULOMB-CORRECTED ACTION OF THE ELECTRON IN THE INTENSE LASER FIELD**

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PI-05 **INTENSITY DISTRIBUTIONS INSIDE NANOPARTICLES**

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PI-06 **SENSITIVITY OF FLUORESCENCE INTENSITY RATIO TEMPERATURE MEASUREMENT IN Er-DOPED FLUOROPHOSPHATE GLASS CERAMICS**

Khodasevich M., Sinitsyn G., Varaksa Y., Yasukevich A., Demesh M., Aseev V.

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PI-07 **IDENTIFICATION OF WINES WITH PROTECTED GEOGRAPHICAL INDICATION (IGP) BY UV-VIS-NIR SPECTROSCOPY COMBINED WITH MULTIVARIATE ANALYSIS**

Khodasevich M., Scorbanov E., Obade L., Degtyar N., Cambur E., Rogovaya M.

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Scientific and Practical Institute of Horticulture and Food Technologies, Moldova

PI-08 **IDENTIFICATION OF EHRLICH CARCINOMA BY MULTIVARIATE ANALYSIS OF RAMAN SPECTRA OF BLOOD SAMPLES**

Khodasevich M., Batay L., Khodasevich I., Gorbunova N., Manina E.

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PI-09 **NONLINEAR ABSORPTION OF VANADATE CRYSTAL IN VISIBLE RANGE IN THE PRESENCE OF UPCONVERSION EXCITED BY IR RADIATION**

I.A.Khodasevich, D.D. Matsiu sheuski, A.U. Grabtchikov

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PI-10 **NEW EUROPIUM DOPED CRYSTALS FOR LASER GENERATION NEAR 700 nm**

V.I. Dashkevich, V.A. Orlovich, S.N. Bagaev, N.V. Kuleshov, A.A. Rusak

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BNTU, Center for Optical Materials and Technologies Minsk, Belarus

PI-11 **ANISOTROPY IN RAMAN GAIN COEFFICIENT OF POTASSIUM-GADOLINIUM TUNGSTATE AT THE WAVELENGTH OF 532 NM**

R. Chulkov, V. Markevich, V. Orlovich, M. El-Desouki

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PI-12 **RAMAN LASERS ON POTASSIUM-GADOLINIUM TUNGSTATE OPERATING IN THE YELLOW-ORANGE SPECTRAL REGION**

R. Chulkov, V. Markevich, V. Orlovich, M. El-Desouki

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PI-13 **MODEL OF DIODE-PUMPED RAMAN LASER WITH EXCITED STATE ABSORPTION OF RADIATION AT THE FUNDAMENTAL WAVELENGTH**

S.V. Voitikov, D.Q. Khanh, N.D. Hung and V.A. Orlovich

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PI-14 **SURFACE CONCENTRATION OF NITROGEN DIOXIDE BASED ON MODELING AND SATELLITE AND GROUND MEASUREMENTS DATA**

Vitaly Kabashnikov, Natallia Miatselskaya, Anatoli Chaikovsky, H. Norka, Nguyen Dai Hung, Nguyen Thanh Binh, Vu Thi Bich, and Tran Ngoc Hung

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PI-15 **REDISTRIBUTION OF THE LASER PULSE NUMBERS ACCORDIND DISTANCES IN A SCATTERING MEDIUM FOR ACTIVE-PULSE VISION SYSTEMS WITH AUTO SCANNING**

Vitaly Kabashnikov, Boris Kuntsevich

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PI-16 **A NEW METHOD OF DETERMINING DISTANCES TO OBJECTS BY USING ACTIVE-PULSE VISION SYSTEMS**

B.F. Kuntsevich, V.P. Kabashnikov, V.A. Gorobets

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PI-17 STIMULATED RAMAN SCATTERING IN LIQUIDS AND SOLIDS UNDER ULTRASHORT LASER PULSE EXCITATION

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PI-18 NONLINEAR OPTICAL PROPERTIES OF PROMISING CRYSTALS AND GLASSES

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PI-19 IDENTIFICATION OF PITUITARY ADENOMA BY TIME-RESOLVED FLUORESCENCE SPECTROSCOPY

A. N. Sobchuk, N. A. Nemkovich[1], Yu.V Kruchenok, Yu. G. Shanko, A. I. Chuhonsky

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PI-20 EFFICIENT LED-PHOTOTHERAPY FOR NEONATAL HYPERBILIRUBINEMIA

V. Yu. Plavskii, A. V. Mikulich, I. A. Leusenko, L. G. Plavskaya, A. I. Tretyakova, N. S. Serdyuchenko, J. Gao[2], D. Xiong, X. Wu

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PI-21 ENHANCED POTENCY OF AMPHOTERICIN B IN COMBINATION WITH LIGHT

A. V. Mikulich, A. I. Tretyakova, V.N. Knukshto, L. G. Plavskaya, I. A. Leusenko, T. S. Ananich, V. Yu. Plavskii, V.S. Ulaschik

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PI-22 **THE SENSITIVITY OF ANIMAL CELLS SENSITIZED WITH BILIRUBIN UNDER IRRADIATION OF BLUE AND GREEN SPECTRAL RANGE**

O. A. Kozlenkova, L. G. Plavskaya, O. N. Dydinova, A. V. Mikulich, I. A. Leusenko, A. I. Tretyakova, V. Yu. Plavskii, J. Gao, D. Xiong, X. Wu

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PI-23 **STUDY OF SELF-PHASE MODULATION AND FOUR-WAVE MIXING IN CHALCOGENIDE RIDGE WAVEGUIDES**

Enguerran Delcourt, Sy Dat Le, Loïc Bodiou, Jonathan Lemaitre, Yannick Dumeige, Emeline Baudet, Virginie Nazabal, Mathilde Gay, Laurent Bramerie, Christophe Peucheret, Monique Thual and Joël Charrier

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PI-24 **THE STRACTURE AND OPTICAL PROPERTIES OF SELF-FORMING GERMANIUM AND SILICIDES NANOPARTICLES ON THE SURFACE OF Si:H THIN FILM**

Jiří Stuchlík, The Ha Stuchlíková, Pham Minh Tien, Jan Čermák, Jaroslav Kupčík, Radek Fajgar, Alexander A. Shklyaev, Vladimir A. Volodin, Adam Purkrt, Zdeněk Remeš

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PI-25 **COMPREHENSIVE METHOD TO DETERMINE SOLAR ACCESS AND OPTIMIZE THE DESIGN OF SOLAR POWER SYSTEM AT SAIGON TECHNOLOGY UNIVERSITY (STU)**

Truong Thi Anh Dao, Tu Dang Quoc Thai, Le Sy Thang, Huynh Anh Tan, Chung Hai Trieu, Truong Viet Thanh

Saigon Technology University

Viet Linh Co.ltd.

PI-26 **TWO MODE OPTICAL STATE TRUNCATION AND GENERATION OF MAXIMALLY ENTANGLED STATES IN PUMPED NONLINEAR COUPLERS INDUCED BY BROAD-BAND LASER LIGHT**

Doan Quoc Khoa, Chu Van Lanh, Phan Xuan Sanh, Nguyen Van Hoa and Nguyen Thi Hong Sang

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Phan Boi Chau High School for The Gifted, Nghe An, Viet Nam

Hong Duc University, Thanh Hoa, Viet Nam

Tran Quoc Toan High School, Dong Thap, Viet Nam

PI-27 **USING PHOTODETECTOR AND NARROW SLIT TO MEASURE LASER BEAM PROFILE: A METHOD SUITABLE FOR EDUCATIONAL PURPOSES**

Nguyen Tan Phat, Tran Dang Bao An, Nguyen Lam Duy

Physics Department, Ho Chi Minh City University of Pedagogy, Ho Chi Minh City, Vietnam

PI-28 **IMPROVING THE PERFORMANCE OF GOLD NANOPARTICLES-DOPED SOLID STATE DYE LASER BY THERMAL CONVERSION EFFECT**

Nguyen Thi My An, Nghiem Thi Ha Lien, Nguyen Dinh Hoang, Do Quang Hoa

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PI-29 **SELECTION OF SINGLE PULSES FROM A TRAIN OF ULTRASHORT LASER PULSES**

Nguyen Xuan Tu, Pham Huy Thong, Bui Anh Duc, Pham Van Duong, Pham Hong Minh, Buganov Oleg and S.A. Tikhomirov

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PI-30 **DEVELOPMENT OF LASER PULSE STRETCHERS AND COMPRESSORS BASED ON A SINGLE- GRATING CONFIGURATION**

Nguyen Xuan Tu, Pham Huy Thong, Tran Duy Thuong, Pham Van Duong, Pham Hong Minh, Buganov Oleg and S.A. Tikhomirov

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Science and Technology, Hanoi, Vietnam

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PI-31 **SURFACE PHOTOVOLTAGE SPECTROSCOPY STUDY OF SOLUTION BASED NANOCOMPOSITE METAL OXIDES AND INTERFACE SOLVENT ENGINEERING PEROVSKITE**

Voranuch Somsongkul*, Felix Lang, Marisa Arunchaiya, Thomas Dittrich

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PI-32 **PHOTOPHYSICAL PROPERTIES OF CURCUMIN ENCAPSULATED BY 1,3-b-GLUCAN ISOLATED FROM VIETNAM MEDICINAL MUSHROOM HERICIUM ERINACEUM**

Nguyen Thanh Binh, Nguyen Dinh Cong, Ha Phuong Thu, Le Xuan Hung, Le Mai Huong and Vu Thi Bich

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PI-33 **BUILDING-UP AN ALGORITHM AND SOFTWARE FOR MEASURING WAVEFRONTS WITH HARTMANN METHOD**

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PI-34 **FAST SYNTHESIS OF CARBON QUANTUM DOTS BY PLASMA - LIQUID INTERACTION METHOD**

Do Hoang Tung, Tran Thi Thuong, Nguyen Dinh Cong, Nguyen Thanh Liem, Nguyen Van Kha, Nguyen Van Hao

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PI-35 **TiO_2/GRAPHENE COMPOSITE FILMS FOR PHOTOELECTROCHEMICAL WATER SPLITTING**

Do Hoang Tung, Nguyen The Anh, Nguyen Thanh Hai, Jiri Olejnicek, Martin Vondracek, Petra Ksirova, Michaela Brunclikova, Nguyen Van Chien*, Pham Van Hao, Dang Van Thanh

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PI-36 **ASORPTION AND SCATTERING OF SEMI-SPHERE Au NANOPARTICLES**

Nguyen Ngoc Son, Nguyen Van Minh, and Chu Manh Hoang

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PI-37 **BUILDING-UP THE INTERFEROGRAM PROCESSING ALGORITHM AND SOFTWARE FOR OPTICAL TESTING**

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PI-38 **PREPARATION AND OPTICAL PROPERTIES OF BOROTELLURITE DOPED WITH Dy^{3+} MELTING GLASSES**

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PI-39 **SYNTHESIS AND PHOTOLUMINESCENCE STUDIES OF $CaSiO_3$ DOPED WITH Eu^{2+}, Mn^{2+}**

N T. Thanh, P V. Do, V T T. Ha, D T. Anh, V X. Quang,

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PI-40 **PREPARATION AND CHARACTERIZATION OF Ce^{3+}-DOPED $MgAl_2O_4$**

N. T. K. Chi, D. H. Nguyen,

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PI-41 **PHOTODYNAMIC PROPERTIES OF CdSe QUANTUM DOT INTRACELLULAR**

Nguyen Thanh Binh, Nguyen Dinh Cong, Do Thi Thao and Vu Thi Bich

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PI-42 **SPECTRAL CHARACTERISTIC IMPROVEMENT OF TAPERED DIODE LASERS USING OPTICAL FEEDBACK FROM REFLECTION BRAGG GRATING**

Tran Quoc Tien, Thanh Phuong Nguyen, Goezt Erbert

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PI-43 **FABRICATION OF MICROHOLESIN THIN METAL FILMS BY FEMTOSECOND LASER PULSES**

Trang T.H. Nguyen, Pavel A. Danilov, Andrey A. Ionin, Roman A. Khmelnitskii, Sergey I. Kudryashov, Andrey A. Rudenko, Irina N. Saraeva, Dmitry A. Zayarny, Minh H. Pham

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PI-44 **ANDERSON LOCALIZATION AND SATURABLE NONLINEARITY IN ONE-DIMENSIONAL DISORDERED LATTICES**

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POSTER II

POSTER II

PII-01 **SEEDED GROWTH SYNTHESIS OF UNIFORM GOLD NANOSPHERES CONTROLED DIAMETERS OF 15 - 220NM**

Do Thi Hue, Nguyen Thi My An, Do Quang Hoa, Tran Hong Nhung, Nghiem Thi Ha Lien

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PII-02 **A VAPOR SENSOR BASED ON POROUS SILICON MICROCAVITY FOR THE QUANTITATIVE DETERMINATION OF METHANOL IN ALCOHOL**

Pham Van Dai, Nguyen Thuy Van, Pham Thanh Binh, Phung Thi Ha, Do Thuy Chi, Pham Van Hoi and Bui Huy

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PII-03 **DETERMINATION OF PROPERTIES OF THALLIUM BROMIDE DETECTOR BY PENELOPE SIMULATION**

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PII-04 **ANTANGLED STATE CREATION BY A NONLINEAR COUPLER PUMPED IN TWO MODES**

V. Le Duc, V. Cao Long, W. Leónski and V. Nguyen Thanh

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PII-05 **SPECTRAL CHARACTERIZATION OF ETCHED-BRAGG GRATING SENSING PROBE INTEGRATED IN FIBER LASER STRUCTURE FOR DETERMINATION OF THE LOW NITRATE CONCENTRATION IN WATER**

Van An Nguyen, Thanh Binh Pham, Thi Ha Phung, Thuy Chi Do, Duc Binh Nguyen, Huy Bui, Quang Minh Ngo, and Van Hoi Pham

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PII-06 **THE IMMOBILIZED ZnO RODS/RODS WITH GALACTOSE OXIDASE FOR GALACTOSE BIOSENSOR**

La Phan Phương Ha, Nguyen Thanh Nam, Ho Le Quyen, Nguyen Thi Thu Hien, Tran Quang Trung

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PII-07 **NANOPARTICLES SIZE DISTRIBUTION MEASUREMENT SYSTEM BASED ON IMAGE ANALYZING TECHNIQUE**

Nguyen Xuan Au, Vu Van Son, Nguyen Trong Nghia, Nguyen Dinh Hoang,

IOP, VAST,10 Daotan, Hanoi

PII-08 **EFFECTS OF FeNb ON PROPERTIES PIEZOELECTRIC CERAMIC PLSZT-PMS-PFN**

Le Trong Dung , Truong Van Chuong, Le Quang Tien Dung
Institute of Oceanography-VAST, 01 Cau Đa, Nha Trang

PII-09 **EFFECT OF CO-DOPING CONCENTRATION ON STRUCTURAL, MORPHOLOGICAL, OPTICAL AND ELECTRICAL PROPERTIES OF ALUMINIUM AND INDIUM CO-DOPED ZnO THIN FILMS**

Dao Anh Tuan, Ngo Nguyen Thanh Truc, Nguyen Thi Diu, Phan Thi Kieu Loan, Nguyen Huu Ke, Le Vu Tuan Hung

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PII-10 **SURFACE PLASMON RESONANCE OF GOLD NANOPARTICLES – GRAPHENE HYBRID**

Nguyen Ngoc Phuong Trinh, Nguyen Thi Thu Hien, Pham Tan Thi,
Le Thuy Thanh Giang, Dinh Son Thach

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PII-11 **STUDY ON EPOXY GRAPHENE BY FIRST PRINCIPLE CALCULATION**

Nguyen Thi Minh Trang, Pham Tan Thi, Dinh Son Thach

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PII-12 **SIMULATION OF LIGHT INTERACTION WITH PERIODICALLY ARRAYED PLASMONIC NANOWIRES**

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PII-13 **OPTICAL PROPERTIES OF PbS QUANTUM DOTS SYNTHESIZED BY CHEMICAL BATH DEPOSITION**

Nguyen Thi Thu Hien, Pham Tan Thi, Dinh Son Thach

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PII-14 **SIMULATE OPTICAL PROPERTIES OF PERIODIC PLASMONIC NANOPARTICLES IN A SUPERLATTICE STRUCTURE**

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PII-15 **A NEW METHOD TREATMENT FOR PLANTAR FASCIITIS: LOW POWER SEMICONDUCTOR LASER**

Trinh Tran Hong Duyen, Tran Minh Thai, Tran Thi Ngoc Dung, Dinh Thi Thu Hong, Huynh Thanh Hoa, Nguyen Van Bo, Nguyen Dinh Quang, Pham Dinh Tuan

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PII-16 **MONTE CARLO SIMULATION FOR LIGHT PROPAGATION OF FOUR SEMICONDUCTOR LASERS FROM SKIN TO DISC DEGENERATION WITH OSTEOPHYTE FORMATION**

Trinh Tran Hong Duyen, Tran Minh Thai, Tran Thi Ngoc Dung, Pham Dinh Tuan,

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PII-17 **TREATMENT RESULTS OF ATHEROSCLEROSIS OF INTERNAL CAROTID ARTERY AS HEMIPLEGIA AFTER CEREBRO VASCULAR ACCIDENT BY LOW POWER SEMICONDUCTOR LASER**

Tran Minh Thai, Ngo Thi Thien Hoa, Tran Thien Hau, Phan Van ToNi,

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PII-18 **TREATMENT RESULTS OF REDUCING GLYCEMIC INDEX IN TYPE 2 DIABETES BY LOW POWER SEMICONDUCTOR LASER**

Tran Minh Thai, Tran Thien Hau, Ngo Thi Thien Hoa, Can Van Be

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PII-19 **APPLICATION OF LOW POWER SEMICONDUCTOR LASER TO THE TREATMENT OF ATHEROSCLEROSIS OF INTERNAL CAROTID ARTERY EXPRESSION AS HEMIPLEGIA AFTER CEREBRO VASCULAR ACCIDENT**

Tran Minh Thai, Ngo Thi Thien Hoa, Tran Thien Hau, Can Van Be

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PII-20 **STUDY SELECTION WAVELENGTH LOW POWER SEMICONDUCTOR LASER THERAPY IN SUPPORT WITH TUBERCULOSIS MONTER - CARLO METHOD**

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PII-21 **CLINICAL TREATMENT RESULTSOF THE BENIGN PROSTATIC HYPERTROPHYOVER 70 YEARS OLD PATIENTS BY LOW POWER SEMICONDUCTOR LASER**

Tran Anh Tu, Tran Minh Thai, Tran Thi Ngoc Dung, Ton Chi Nhan

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PII-22 **APPLICATION OF LOW POWER SEMICONDUCTOR LASER IN TREATMENT HYPERTENSION IN TYPE 2 DIABETES PATIENTS,**

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PII-23 APPLICATION OF LOW POWER SEMICONDUCTOR LASER FOR TREATMENT TO REDUCE GLYCEMIC INDEX IN TYPE 2 DIABETES

Tran Minh Thai, Tran Thien Hau, Ngo Thi Thien Hoa, Can Van Be

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PII-24 LOW POWER LASER THERAPY FOR HERNIATED DISC IN THE CERVICAL VERTEBRAE

Trinh Tran Hong Duyen, Tran Minh Thai, Tran Thi Ngoc Dung, Huynh Thanh Hoa, Nguyen Huu Phuc, Nguyen Van Cuoc, Nguyen Minh Chau

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PII-25 LARGE AREA PHOTONIC CRYSTALS FABRICATED BY INTERFERENCE TECHNIQUE

Thi Thanh Ngan Nguyen, Thi Thu Trang Nguyen, Tran Quoc Tien, Thi Giang Duong, Anh Tu Le, Hong Duong Pham

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PII-26 STRUCTURAL AND OPTICAL PROPERTIES OF GD AND NI CO-DOPED $BiFeO_3$ MATERIALS

Dao Viet Thang, Le Thi Mai Oanh, Nguyen Manh Hung, Du Thi Xuan Thao, and Nguyen Van Minh

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PII-27 UNUSUAL EVOLUTION OF THE OPTICAL BANDGAP OF COLLOIDAL ZnxCd1-xS NANOCRYSTALS

Hoang Thi Lan Huong, Nguyen Dinh Cong, Nguyen Xuan Nghia, Nguyen Thi Thuy Lieu

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PII-28 EFFECT OF THE CHEMICAL REACTIVITY OF SULFUR PRECURSOR ON THE SPECTROSCOPIC CHARACTERISTICS OF THE COLLOIDAL CdS NANOCRYSTALS

Le Anh Thi, Nguyen Dinh Cong, Dang Ngoc Toan, Nguyen Minh Hoa, Nguyen Thi Thuy Lieu, Vu Xuan Quang, Nguyen Xuan Nghia

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PII-29 **MORPHOLOGY CONTROLLED SYSTHESIS OF FLOWER-LIKE SILVER NANOSTRUCTURES ON SILICON AND THEIR APPLICATION IN SURFACE-ENHANCED RAMAN SCATTERING**

Kieu Ngoc Minh, Cao Tuan Anh, Luong Truc Quynh Ngan, Le Van Vu and Dao Tran Cao

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PII-30 **EFFECT OF SYNTHESIS CONDITIONS ON STRUCTURAL AND OPTICAL PROPERTIES OF $Bi_2Sn_2O_7$ NANOPARTICLES FABRICATED BY HYDROTHERMAL METHOD**

Pham Khac Vu, Nguyen Thi Mai Anh, Nguyen Dang Phu, Nguyen Van Hung, Luc Huy Hoang

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PII-31 **THE INFLUENCE OF SOME DYNMICAL PARAMETERS ON MODE INTERACTION IN RANDOM LASER**

Nguyen Van Phu and Dinh Van Hoang

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PII-32 **OPTICAL BISTABILITY EFFECT IN ONE-DINEMSIONAL NONLINEAR PHOTONIC CRYSTALS**

Nguyen Van Phu,

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PII-33 **DESIGN AND REALIZATION OF MULTISPECTRAL LED SYSTEMS FOR ILLUMINATION OF TISSUE CULTURE OF MEDICINAL PLANTS**

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PII-34 OPTICAL PROPERTIES OF RARE EARTH IN BORATE-TELLURITE GLASS – CERAMICS

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PII-35 MICROHOLE DRILLING TECHNIQUE IN STAINLESS STEEL SHEETS BY UTILIZING PULSED Nd:YAG LASER

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PII-36 A MICRO-PHOTONIC SENSOR BASED ON RESONANT POROUS SILICON STRUCTURES WITH LIQUID ENVIRONMENT MONITORING

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PII-37 THE SECOND HARMONIC GENERATION OF PRISM-SHAPED KDP SINGLE CRYSTALS

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PII-38 OPTICAL INVESTIGATION ON THE EFFICIENCY OF WATER TREATMENT WITH DIELECTRIC BARRIER DISCHARGE PLASMA

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PII-39 DESIGN AND DEVELOPMENT OF A QUANTUM KEY DISTRIBUTION SYSTEM FOR SECURE COMMUNICATION

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PII-40 **DEVELOPMENT OF TWO DISTRIBUTED FEEDBACK DYE LASERS FOR DIFFERENTIAL ABSORPTION LIDAR MEASUREMENT OF OZONE IN THE LOWER ATMOSPHERE**

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PII-41 **RAMAN SCATTERINGSTUDY OF CdTeSe ALLOY AND GRAPHENE QUANTUM DOTS**

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PII-42 **SOME STUDIES OF MAKING GLASS BLOCKS FOR THE LARGE MIRRORS**

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PII-43 **SYNTHESIS OF HIGH QUALITY MONOLAYER WS_2 USING CHEMICAL VAPOR DEPOSITION**

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PII-44 **FIRST-PRINCIPLES STUDY OF THE THERMALLY INDUCED POLYMERIZATION OF CYCLOPENTASILANE**

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ABSTRACT

PLENARY ABSTRACTS