

DEPARTMENT OF NUCLEAR PHYSICS AND TECHNOLOGY

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I. STAFF

Professors	Prof. Ing. Jozef Lipka, DrSc., Prof. Ing. Marcel Miglierini, DrSc., Prof. Ing. Vladimír Nečas, PhD., Prof. Ing. Jozef Sitek, DrSc., Prof. Ing. Vladimír Slugeň, PhD.
Associate Professors	Doc. Ing. Mária Pavlovič, PhD., Doc. Ing. Peter Kováč, PhD.,
Assistant Professors	Ing. Ján Haščík, PhD., Ing. Róbert Hincá, PhD., Ing. Andrea Šagátová, PhD.
Senior Scientists	RNDr. Štefan Krnáč, PhD., Ing. Milan Seberíni, PhD., Ing. Ignác Tóth
Research Workers	Ing. Jarmila Degmová, PhD., Ing. Gabriel Farkas, Ing. Marek Hudák, Ing. Jozef Keníž, Ing. Vladimír Kršjak, Bc. Svetozár Michálek, Ing. Martin Petriska, Ing. Miloslav Rajčan, Ing. Dušan Solivajs, Ing. Stanislav Stanček, Bc. Ivan Strašík, Ing. Klement Vitázek, PhD.,
Technical Staff	Eva Mániková (secretary), Peter Mikula, Andrea Podhájska
PhD. Students	Ing. Juraj Breza, Ing. Július Dekan, Ing. Peter Domonkoš, Ing. Tomáš Kaňuch, Ing. Marek Mikloš, Ing. Matúš Mozolík, Ing. Milan Pavúk, Ing. Peter Tatranský, Ing. Andrej Škotta, Ing. Radoslav Zajac

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory of Mössbauer Spectroscopy
- Ion Beam Laboratory
- Laboratory of Positron Annihilation Spectroscopy
- Laboratory of Radiation Ecology
- Laboratory of Optical Spectroscopy
- Laboratory of Radioactive Isotopes
- Laboratory of Neutron Physics

II.2 Special Measuring Instruments and Computers

- Mössbauer Spectrometers - 3 units (77 - 1200 K)
- 1 MV Cascade Accelerator. Ion beam analyses: 2 MeV He²⁺ RBS with UHV target chamber, sample heating 300 - 1200 K, 1 MeV H⁺ PIXE; 1 channelling MeV H⁺ NRA. Ion beam modification: 10 keV - 1 MeV ion implantation, high dose ~ 10¹⁹ ion/cm²
- Sector Magnet Mass Spectrometer, isotope resolution
- Life-Time and Angular Correlation Positron Annihilation Spectrometers
- Low-Background Chamber with HPGe detector and gamma ray spectrometer
- Department's LAN computer network

II.3 Special Software

- Particle Beam Optics Laboratory PBO Lab™ 2.1

- Transport
- Trace-3D
- Electrostatic Palette

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer

Accelerators and Their Applications	(5th sem., 2-2h)	M. Pavlovič
Nuclear Power Facilities	(5th sem., 3-2h)	V. Slugeň, V. Nečas
Sources of Radiation	(6th sem., 2-3h)	J. Lipka
Basics of Ecology	(6th sem., 2-2h)	J. Sitek
Accelerator Physics and Technology	(7th sem., 2-2h)	M. Pavlovič
Materials of Nuclear Power Plant	(7 th sem., 2-2h)	V. Nečas
Nuclear Electronics	(8th sem., 2-3h)	M. Seberíni, J. Sitek
Safety and Reliability of Nuclear Power Plants	(8th sem., 2-2h)	V. Slugeň
Ecobiophysics	(8th sem., 3-2h)	J. Degmová
Application of Computers in Ecology	(8th sem., 2-2h)	M. Pavlovič

III.2 Graduate Study (Ing.)

Experiments on Research Reactors	(1st sem., 0-3h)	J. Haščík, G. Farkas
Atomic and Molecular Spectroscopy	(1st sem., 2-2h)	M. Miglierini
Theory of Nuclear Reactors	(1st sem., 3-2h)	J. Haščík
Decommissioning of Nuclear Power Plants	(1st sem., 2-2h)	V. Nečas
Control of Nuclear Power Plant	(1st sem., 2-3h)	V. Slugeň
Team Project	(1st sem., 0-4h)	V. Nečas
Experimental Reactor Physics	(2nd sem., 2-2h)	J. Haščík
Dosimetry	(2nd sem., 2-2h)	J. Lipka, R. Hince
Ion Beams	(2nd sem., 2-2h)	M. Pavlovič
Operation of Nuclear Power Plant	(2nd sem., 3-2h)	V. Slugeň
Methods and Instruments in Ecology	(2nd sem., 2-2h)	J. Sitek
Radiology and Nuclear Medicine	(win.sem., 3-1h)	M. Miglierini
Nuclear Physical Methods	(win.sem., 2-2h)	J. Sitek

IV. RESEARCH PROJECTS

- Ion Implantation and Analysis of GaAs. Joint Project with Institute of Thin Films and Interfaces, Research Centre Jülich, Germany, P. Kováč
- Structures and Materials for Ion Beam Lithography. Joint Project with IMS Nanofabrication GmbH, Vienna, Austria, P. Kováč

- Thin Films and Microelectronics Structures on the Base of Oxides. VEGA 2/2068/02. Joint project with the Slovak Academy of Sciences, P. Kováč
- Knowledge Based Modification of Nanocrystalline Alloys Surface Layers. VEGA 1/1014/04, M. Miglierini
- Magnetic Anisotropy to Texture Relationship in Nanocrystalline Alloys, Slovak-French Science and Technology Co-operation, FR/SK/23, M. Miglierini
- Magnetic Microstructure of Nanocrystalline Alloys, Slovak-French Bilateral Project, FR/SK/FEI STU/ 04, M. Miglierini
- Surface States of Nanostructured Materials, Slovak-Czech Intergovernmental Science and Technology Co-operation, SK/CZ/057, M. Miglierini
- Education in Nuclear Physics Engineering, KEGA 3/100503, M. Miglierini
- Nuclear European Platform for Training and University Organisations (NEPTUNO), 6th F. p. EU No FIGO-CT-2003-508849, M. Miglierini
- Investigation of Technology, Physical and Detection Performances of X and Gamma Ray InP Based Detectors, VEGA 2/4151/24. Joint project with the Slovak Academy of Sciences, V. Nečas
- Study of the Nuclear Fuel Cycle and Transmutation of the Nuclear Spent Fuel. VEGA 1/0285/03, V. Nečas
- Accelerators for Ion Cancer Therapy. Scientific and educational collaboration with Forschungs- und Technologietransfer GmbH, FOTEC, Wiener Neustadt, Austria, M. Pavlovič Rak/Slov/FEISTU1/03
- Experimental and Theoretical Study of Energy Deposition and Residual Activation Induced by Uranium Ions to Model the Beam Loss Hazards in the GSI Future Facility. INTAS Ref. Nr 03-54-3588, M. Pavlovič
- Design Studies of Accelerators and Development of Nuclear Techniques for Biomedical and Health-Physics Research. VEGA 1/0274/03, M. Pavlovič
- Special Materials in Extreme Conditions. VEGA 1/0284/03, J. Sitek
- Positron Annihilation Study of Radiation Embrittlement of the Materials Used in Fusion Technology. 6th Framework Project of European Atomic Energy Community No FU 06-CT-2003-00040, V. Slugeň
- Prediction of Irradiation Damage Effects on Reactor Components (PERFECT). 6th Framework Project of European Atomic Energy Community No FI06-2004-00058, V. Slugeň
- Study Contract Proton Irradiation of Samples using Cascade Accelerator. International Research Project with European Commission Institute of Advanced Materials, JRC Petten, V. Slugeň
- Coordinated Action of VVER Safety. 6th Framework Project of European Atomic Energy Community No FI06-COV-2005-012727, V. Slugeň
- RPV Embrittlement VVER Knowledge Management Project Support. International Research Project with European Commission, Institute of Energy, JRC Petten, V. Slugeň

V. COOPERATION

V.1 Cooperation in Slovakia

- Cyclotron Centre of Slovak Republic, Bratislava
- Decom Slovakia, Ltd., Trnava
- Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava
- Geological Institute, Slovak Academy of Sciences, Bratislava
- Institute of Electrical Engineering, Slovak Academy of Sciences, Bratislava
- Institute of Experimental Physics, Slovak Academy of Sciences, Košice
- Institute of Physics, Slovak Academy of Sciences, Bratislava
- Institute of Informatics, Slovak Academy of Sciences, Bratislava
- Institute of Preventive and Clinical Medicine, Bratislava
- International Laser Centre, Bratislava

- University of P. J. Šafárik, Institute of Physical Sciences, Košice
- Nuclear Power Plant Research Institute, Joint Stock Company, Trnava
- Nuclear Regulatory Authority of the Slovak Republic, Bratislava
- Relko, Ltd., Bratislava
- Slovak Electric, plc., Bratislava
- Slovak Electric, plc., Decommissioning of the Nuclear Installations, Radioactive Waste and Spent Fuel Management, Jaslovské Bohunice
- Slovak Electric, plc., Mochovce Nuclear Power Plant, Mochovce
- Slovak Electric, plc., Bohunice Nuclear Power Plant, Jaslovské Bohunice
- Slovak Office for Normalization, Metrology and Testing, Bratislava
- Slovak Institute of Metrology, Bratislava
- BIONT, Bratislava

V.2 International Cooperation

- All-Russian Scientific Institute of Experimental Physics, Theoretical Physics Department, Sarov, Russia
- Atominstytut der Österreichischen Universitäten, Vienna, Austria
- Centro de Investigación y de Estudios Avanzados del IPN Unidad Saltillo, Mexico
- Department of Nuclear Reactors, Technical University in Prague, CzR
- EFDA Close Support Unit, Garching, Germany
- Energovýzkum, Brno, CzR
- Flerov Laboratory of Nuclear Reactions, Joint Institute of Nuclear Research, Dubna, Russia
- Forschungs- und Technologietransfer GmbH, FOTEC, Wiener Neustadt, Austria
- Framatome ANP BT62 Brennelement Laboratory, Erlangen, Germany
- Fraunhofer-Institut für Zerstörungsfreie Prüfverfahren, EADQ, Dresden, Germany
- GSI, Accelerator Department, Darmstadt, Germany
- II. Physikalisches Institut, Universität Göttingen, Germany
- IMS - Nanofabrication, GmbH, Vienna, Austria
- Leibniz Institut für Festkörper- und Werkstoffforschung, Dresden, Germany
- Institute for Nuclear Research of the Russian Academy of Sciences, Neutron Research Department, Moscow, Russia
- Institute for Theoretical and Experimental Physics, High Energy Density in Matter Produced by Heavy Ion Beam Department, Moscow, Russia
- Institute of Advanced Materials, European Commission, JRC Petten
- Institute of Nuclear Technics, Budapest University of Technology and Economics, Hungary
- Institute of Thin Films and Interfaces, Research Centre Jülich, Germany
- International Atomic Energy Agency, Vienna, Austria
- Laboratory of Nuclear Problems, Joint Institute of Nuclear Research, Dubna, Russia
- Leibniz Institute für Festkörperphysik, University Vienna, Austria
- Nuclear Research Institute, Řež, CzR
- Universität der Bundeswehr, München, Germany
- University of Gent, Belgium
- University du Maine, Le Mans, France
- Palacky University, Olomouc, Czech Republic

V.3 Membership in Slovak Organisations and Societies

- Academy Council of Slovak Nuclear Society (J. Lipka, M. Miglierini, V. Nečas, S. Sitek, V. Slugeň)
- Board of Nuclear Safety SE-EBO (J. Lipka)
- Board of Nuclear Safety SE a.s. (J. Lipka, vice chairman)
- Board of Nuclear Safety SE-EMO (V. Slugeň)
- Board of Nuclear Safety SE-VYZ (V. Nečas)
- Council of Nuclear Regulatory Authority of the Slovak Republic (J. Lipka)
- Co-ordination Board for Cooperation with JINR Dubna (V. Nečas)

- Expert Board of Cyclotron Centre of Slovak Republic (P. Kováč, M. Pavlovič)
- Scientific Council of Slovak Institute of Metrology (J. Lipka, V. Nečas)
- Slovak Nuclear Forum (J. Lipka - vice president)
- Slovak Nuclear Society (V. Slugeň - chairman, J. Degmová, J. Haščík, R. Hince, P. Kováč, Š. Krnáč, J. Lipka, M. Miglierini, V. Nečas, M. Petriska, J. Sitek, P. Tatranský)
- Slovak Physical Society (M. Miglierini, V. Nečas, J. Sitek, V. Slugeň)
- Slovak Spectroscopic Society (M. Miglierini - president, J. Degmová, J. Haščík, P. Kováč, Š. Krnáč, J. Lipka, M. Seberini, J. Sitek, I. Tóth, members)
- State Examination Committee for the Verification of Operating Staff of Nuclear Installations Specific Abilities (J. Lipka, J. Haščík)

V.4 Membership in International Organisations and Societies

- Czech Vacuum Society (P. Kováč)
- ENEN Association (M. Miglierini, J. Haščík, V. Slugeň)
- European Nuclear Society (V. Slugeň)
- European Physical Education Network (V. Slugeň)
- German Nuclear Society (V. Slugeň)
- International Board on the Applications of the Mössbauer Effect "IBAME" (M. Miglierini)
- International Journal of Nuclear Energy Science and Technology, Member of the Editorial Board (V. Nečas)
- International Journal of Nuclear Knowledge Management, Member of the Editorial Board (V. Slugeň)
- OECD/NEA Bank's Computer Program Service (J. Lipka -Liaison Officer)
- Science and Technology Advisory Committee of EU - Area Nuclear Fusion (V. Slugeň)
- The Research Board of Advisors of the American Biographical Institute (M. Pavlovič)
- The Advisory Council of the International Biographical Centre Cambridge (M. Pavlovič)

V.5 Contracts

- J. Haščík, R. Hince, J. Lipka: Realisation of probe examination of VITON A75 material for its thermal and radiation evaluation. Contract with Nuclear Power Plant Research Institute. Joint Stock Company, Trnava
- J. Haščík, J. Lipka: Periodical Training of Supervising Physicists of the NPP Bohunice and Mochovce on the Experimental Nuclear Reactors. Contract with NPP Bohunice and Mochovce
- J. Lipka, Š. Krnáč, I. Tóth, J. Topol'ský: Measurement of selected components of Ionisation Fire-Announcers. Contract with Am EKO Bratislava
- J. Lipka, V. Slugeň, J. Haščík, R. Hince, V. Nečas: Post-gradual requalification training course: Safety aspects of nuclear facilities operation. Contract with Slovenské elektrárne, a. s.
- V. Nečas, J. Breza, R. Zajac, K. Vítázek, J. Lipka, S. Michálek, P. Tatranský: Conception of Nuclear Fuel and Fuel Cycle Adaptation. Contract with Nuclear Power Plant Research Institute, Joint Stock Company, Trnava

VI. THESES

VI.1 Masters Theses

Masters theses supervised at the Department of Nuclear Physics and Technology. The names of supervisors are in brackets.

- [1] M. Antal: Slovak nuclear engineering network (M. Pavlovič)
- [2] B. Babic: Sintering of Cr₂O₃ doped UO₂ (V. Slugeň)
- [3] O. Binder: Operating software for data acquisition from Roentgen tomographic system on GaAs basis (B. Zát'ko, V. Nečas)
- [4] J. Breza: Comparison of classical and transmutation fuel cells of lightwater reactors from the viewpoint of material properties and composition of the fuel in the course of burn-up (V. Nečas)

- [5] D. Čačo: Magnetic microstructure of nanocrystalline alloys of nanoperm type (M. Miglierini)
- [6] J. Dekan: Study of archaeological artefacts by Mössbauer spectrometry (M. Miglierini)
- [7] A. Feketeová: Aluminium based nanocrystalline alloys (J. Sitek)
- [8] M. Hružík: Statistical analysis of fluctuation of detection efficiency of electronic registering with GaAs detector of ionizing radiation (F. Dubecký, V. Nečas)
- [9] M. Janíček: The economic analysis of advanced nuclear fuel cycles (V. Nečas)
- [10] V. Kršjak: Study of nuclear reactors materials with emphasis on using the electron positron annihilation (V. Slugeň)
- [11] M. Mikloš: Monitoring of the fuel elements condition in a burnt fuel interim storage at the NPP SE-EBO (V. Slugeň)
- [12] J. Mikula: Safety aspects of depositing the radioactive waste (R. Hinca)
- [13] J. Mikulová: Analysis of influence of nuclear equipment contamination level on their decommissioning (V. Daniška, V. Nečas)
- [14] M. Novosad: Innovation of PAS 1D-ACAR equipment and its using by measuring the fusion reactor ITER materials (P. Domonkoš)
- [15] M. Ondek: Structural transformations in powder steels (M. Miglierini)
- [16] D. Orlický: Measuring and optimalization of magnetic field homogeneity for NMR tomography (M. Miglierini, P. Andris)
- [17] S. Pavlíková: Estimation of burn-up fuel risk for different strategies of the fuel cycle (V. Nečas, V. Šebian)
- [18] M. Pavúk: Relation between positron lifetime and microstructure of nanocrystalline alloys (M. Miglierini)
- [19] M. Pňáček: Level 1 full power probabilistic safety assessment for the unit 1 of V1 NPP (Z. Kovács, J. Lipka)
- [20] P. Pižl: Proposal and realisation of the educational program for the course "Particle Accelerator Physics and Technology" (M. Pavlovič)
- [21] M. Reháček: Outlets of radioactive substances from the nuclear power plant Mochovce (R. Hinca)
- [22] J. Röschlová: Radiotoxicity and risk of nuclear fuel cycle back end of VVER-440 reactor (V. Nečas)
- [23] T. Rusňák: Study of radiation damage of semi-insulating GaAs detectors (Ly Anh Tu, V. Nečas)
- [24] M. Trúsík: Monte Carlo simulation of the clinical linear accelerator's photon beam (M. Miglierini)
- [25] M. Závodský: Effect of control rod on distribution of neutron flux in VVER 440 reactor core (J. Haščík)

VI.2 Doctoral Theses

- [1] T. Ly Anh: Radiation damage of GaAs detectors of ionizing radiation (V. Nečas)
- [2] P. Domonkoš: Radiation damage to materials in the ITER fusion reactor (V. Slugeň)
- [3] J. Haščík: Radiation damage study of VVER 440 reactor pressure vessel (J. Lipka)
- [4] K. Křištofová: Calculation of induced activity in reactor KS-150 for decommissioning purposes (V. Nečas)
- [5] I. Reháček: Calculation of decommissioning parameters of nuclear facilities with use of integral material flow control (V. Nečas)
- [6] A. Šagátová-Perd'ochová: Detection properties of radiation imaging detectors based on semi-insulating GaAs (V. Nečas)
- [7] K. Sedláčková: Corrosion resistance of iron-based amorphous and nanocrystalline alloys (J. Sitek)
- [8] K. Vitázek: Evaluation of safe and reliable operation of nuclear utilities using non-destructive methods. (J. Lipka)

VII. OTHER ACTIVITIES

- Organisation of the Postgraduate Study “Safety Aspects of Nuclear Equipment Operation” for participants from different organisations. Organised for Slovak Electric, Plc.
- Organisation of students excursion to Austrian Research Center Seibersdorf
- Organisation of SNUS Annual Meeting Scientific Conference, 5 – 6 October, 2005, Častá - Papiernička, Slovakia
- E. Wigner Course for Reactor Physics, 26 April - 14 May 2005, Bratislava, Vienna, Prague, Budapest
- Organisation of Scientific Conference: “SNUS Young Generation”, 6 - 7 October 2005, Častá Papiernička, Slovakia
- Organisation of International Conference “Go Nuke Slovakia” 10 - 11 June 2005, Bratislava, Slovakia
- Organisation of Conference “ Applied Physics of Condensed Matter”, 15 - 17 June 2005 Malá Lučivná, Slovakia
- Students Practical Exercises at the TRIGA Mark II Reactor in Atom Institute of the Austrian Universities, Vienna, Austria
- Students Practical Exercises at the School Reactor of the Budapest University of Technology and Economics, Budapest, Hungary
- Students Practical Exercises at the Training Reactor of the Czech Technical University in Prague, Czech Republic
- Organization of International meeting PERFECT 13 – 14 June 2005, Bratislava, Slovakia
- Organization of the Course Nuclear Safety for Subcontractors, 2 – 6 May 2005, Bratislava, Slovakia

VIII. PUBLICATIONS

VIII.1 Journals

- [1] BALLO, P., DEGMOVÁ, J., SLUGENĚ, V.: Grain Boundary Sliding and Migration in Copper: Vacancy Effect. In: Physical Review B. - Vol.72 (2005) - pp. 064118.1-5. (in English)
- [2] BALLO, P., SLUGENĚ, V.: Grain Boundary Sliding and Migration in Copper: the Effect of Vacancies. In: Computational Materials Science. - Vol.33 (2005) - pp. 491-498. (in English)
- [3] BROSKA I., VIDOVCOVÁ, K., KONEČNÝ, P., SIMAN, P., LIPKA, J.: Titanite in the Granitoids of the Western Carpathians: Distribution and Composition. In: Mineralia Slovaca. - Vol.36 (2005) - pp. 237-246. (in Slovak)
- [4] DANIŠKA, V., VAŠKO, M., ONDRA, F., BEZÁK, P., SCHULZ, O., KRIŠTOFOVÁ, K., PRÍTRSKÝ, J., TIMULÁK, J., REHÁK, I., TATRANSKÝ, P., NEČAS, V.: Control and Optimization of Nuclear Power Plants Decommissioning by the OMEGA Code. In: EE - časopis pre elektrotechniku a energetiku. - Vol.11, Special Issue (2005) - pp. 67-70. (in Slovak)
- [5] DEGMOVÁ, J., TÓTH, I., BEDNARČÍK, J., KOLLÁR, P.: The Influence of Ball-Milling on Structural and Magnetic Properties of Co-Based Powders. In: Czechoslovak Journal of Physics. - Vol.55, No.7 (2005) - pp. 791-801. (in English)
- [6] DEKAN, J., MIGLIERINI, M., STAŠŠÍKOVÁ-ŠTUKOVSKÁ, D.: Origin of Slag from Early Medieval Age Furnaces in Nitra. In: Advances in Electrical and Electronic Engineering. - Vol.4, No.2 (2005) - pp. 93-96. (in English)

- [7] DUBECKÝ, F., PERĐOCHOVÁ, A., ŠČEPKO, P., ZAŤKO, B., SEKERKA, V., NEČAS, V., SEKÁČOVÁ, M., HUDEC, M., BOHÁČEK, P., HURAN, J.: Digital X-Ray Portable Scanner Based on Monolithic Semi-Insulating GaAs Detectors: General Description and First "Quantum" Images. In: Nuclear Instruments and Methods in Physics Research A. - Vol.546 (2005) - pp. 118-124. (in English)
- [8] FRANKO, J., GULBEKIAN, G.G., IVANENKO, I.A., KENÍŽ, J., KRÁLIK, S., PAVLOVIČ, M.: BCalc - A Computer Program for Processing the Cyclotron Magnetic Structure Measurement Data. In: Journal of Electrical Engineering. - Vol.56, No.1-2 (2005) - pp. 26-30. (in English)
- [9] GONZÁLEZ-ANGELES, A., MENDOZA-SUÁREZ, G., GRUSKOVÁ, A., LIPKA, J., PAPÁNOVÁ, M., SLÁMA, J.: Effect of (Ni, Zn) Ru Mixtures on Magnetic Properties of Barium Hexaferrites Yielded by High-Energy Milling. In: Journal of Magnetism and Magnetic Materials. - Vol.285 (2005) - pp. 450-455. (in English)
- [10] GONZÁLEZ-ANGELES, A., MENDOZA-SUÁREZ, G., GRUSKOVÁ, A., SLÁMA, J., LIPKA, J., PAPÁNOVÁ, M.: Magnetic Structure of $\text{Sn}^{2+}\text{Ru}^{4+}$ -Substituted Barium Hexaferrites Prepared by Mechanical Alloying. In: Materials Letters. - Vol.59 (2005) - pp. 1815-1819. (in English)
- [11] GULBEKIAN, G.G., SOLIVAJS, D., BORISOV, O.N.: Analysis of Possibilities of Extraction of Heavy Ions. In: Soobščenia objedinennogo instituta jadernych issledovanij. - Vol.9, No.52 (2005) - pp. 1-7. (in Russian)
- [12] MIGLIERINI, M.: Austenite-to-Martensite Transformations in Ledebourite-Type Powder Steels. In: Czechoslovak Journal of Physics. - Vol.55, No.7 (2005) - pp. 813-822. (in English)
- [13] MIKULICS, M., MARSO, M., CÁMARA MAYORGA, I., GÜSTEN, R., STANČEK, S., KOVÁČ, P., WU, S., LI, X., KHAFIZOV, M., SCOBLEWSKI, R., MICHAEL, E.A., SCHIEDER, R., WOLTER, M., BUCA, D., FÖRSTER, A., KORDOŠ, P., L, H.: Photomixers Fabricated on Nitrogen-Ion-Implanted GaAs. In: Applied Physics Letters. - Vol.87, No.4 (2005) - pp. 1106-1108. (in English)
- [14] MITROVIC, N., ROTH, S., DEGMOVÁ, J., STOICA, M., ECKERT, J.: Synthesis, Structure and Properties of Iron-Based Bulk Glass-Forming Metallic Alloys Prepared by Different Processing. In: Materials Science Forum. - Vol.494 (2005) - pp. 321-326 (<http://www.ttp.net>). (in English)
- [15] ONDRA, F., DANIŠKA, V., PRÍTRSKÝ, J., TATRANSKÝ, P., NEČAS, V.: Uncertainty Assessment of Cost Estimating for Nuclear Plants Decommissioning. In: EE - časopis pre elektrotechniku a energetiku. - Vol.11, Special Issue (2005) - pp. 110-112. (in Slovak)
- [16] ORLICKÝ, O., LIPKA, J., TÓTH, I.: An Explanation of Some Effects of the Titanomagnetite Solid Solutions ($\text{Fe}_{3-x}\text{Ti}_x\text{O}_4$) Based on the Magnetic Susceptibilities, the Curie Temperature Measurements, and the Mössbauer Spectra Measurements. In: Contributions to Geophysics and Geodesy. - Vol.35, No.1 (2005) - pp. 79-94. (in English)
- [17] PAVLOVIČ, M., GRIESMAYER, E., SEEMANN, R.: Beam-Transport Study of an Isocentric Rotating Ion Gantry with Minimum Number of Quadrupoles. In: Nuclear Instruments and Methods in Physics Research A. - Vol.546 (2005) - pp. 412-426. (in English)
- [18] PERĐOCHOVÁ, A., DUBECKÝ, F., NEČAS, V., ZAŤKO, B.: Guard-Ring and Charge Collection Efficiency of GaAs Detector. In: Advances in Electrical and Electronic Engineering. - Vol.4, No.2 (2005) - pp. 75-78. (in English)

- [19] PIŠŮT, J., SLUGENĚ, V.: The Attitude of Slovak Nuclear Society to Education in Nuclear Physics, Technique and Power Engineering. In: Slovenská energetika. - Vol.30, No.6 (2005) - pp. 5. (in Slovak)
- [20] SITEK, J., SEDLAČKOVÁ, K., SEBERĚINI, M.: Atmospheric Corrosion of Different Fe-Based Alloys in Nanocrystalline State. In: Czechoslovak Journal of Physics. - Vol.55, No.7 (2005) - pp. 883-891. (in English)
- [21] SLUGENĚ, V.: Defects Investigation in Neutron Irradiated Reactor Steels by Positron Annihilation. In: Nuclear Engineering and Design. - Vol.235 (2005) - pp. 1961-1967. (in English)
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