

DEPARTMENT OF PHYSICS

<http://www.kf.elf.stuba.sk>

Head of Department

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I. STAFF

Professors	Prof. Ing. Peter Ballo, PhD., Prof. Ing. Július Cirák, PhD., Prof. Ing. Rudolf Durný, DrSc., Prof. RNDr. Július Krempaský, DrSc.
Associate Professors	Doc. Ing. Otto Budke, PhD., Doc. RNDr. Ivan Červeň, PhD., Doc. Ing. Peter Dieška, PhD., Doc. RNDr. Edmund Dobročka, PhD., Doc. Ing. Ján Vajda, PhD., Doc. RNDr. Pavol Valko, PhD.
Assistant Professors	Ing. Peter Bokes, PhD., Ing. Ondrej Foltin, PhD., RNDr. Juraj Chlpík, RNDr. Peter Markoš, DrSc., Ing. Jaroslav Tóvik, PhD., RNDr. Róbert Turanský, RNDr. Mária Valková, Mgr. Marek Vančo, PhD., Ing. Martin Weis, PhD., Ing. Ivan Zelenay, PhD.
Senior Scientist	Ing. Jozef Bielek, PhD.
Research Workers	RNDr. René Derian, PhD., Ing. Ľuboš Keleši, Mgr. Martin Konôpka, PhD., Ing. Vlasta Macková, PhD., RNDr. Martin Moško, PhD., Ing. Pavol Tomčík, Ing. Alfred Vlnieška
Technical Staff	Zuzana Váciiová (secretary), Štefan Kučera
PhD. Students	Ing. Miroslava Diešková, Ing. Jana Röschlová, Ing. Michal Sokolský, RNDr. Kamil Tokár, Ing. Tomáš Váry

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratories of elementary and advanced physics
- Laboratory of ordered molecular layers and systems
- Laboratory of applied optics
- Laboratory of X-ray diffraction
- Laboratory of thermophysical properties
- Laboratory of macrostructure of composites
- Laboratory of material simulation
- Laboratory of spectroscopy
- Center for computational materials science

II.2 Special Measuring Instruments and Computers

- Refrigerator cooled cryostat NOK-10-3D
 - Langmuir - Blodgett deposition device, Nima, U.K.
 - Electrostatic voltmeter Trek
 - 7801 Solartron special multimeter
 - Measuring microscope CZJ
 - X-ray diffraction powder goniometer
- 4 numerical servers (clusters) with 60 nodes (140 cores) - supporting infrastructure

(incl. Myrinet)
- Sun storage tek 6140 FC maxperf
- 2 x Sun Fire server.

III. TEACHING

III.1 Undergraduate Study (Bc.)

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

Introduction to Technical Physics	(1st sem., 0-2h)	A. Vlnieška
Physics	(2nd sem., 3-2h)	J. Cirák
Physics I	(2nd sem., 3-2h)	P. Ballo, M. Vančo, P. Valko, O. Foltin, I. Červeň
Special Seminar - Physics I	(2nd sem., 0-2h)	P. Ballo, M. Vančo, P. Valko, A. Vlnieška
Physics II	(2nd sem., 3-2h)	P. Dieška
Special Seminar - Physics I	(2nd sem., 0-2h)	P. Dieška
Physics I	(3rd sem., 3-2h)	M. Vančo
Special Seminar - Physics I	(3rd sem., 0-2h)	M. Vančo
Physics II	(3rd sem., 3-2h)	J. Cirák, P. Markoš, P. Valko, M. Vančo, I. Červeň
Special Seminar - Physics II	(3rd sem., 0-2h)	J. Cirák, P. Markoš, P. Valko, M. Vančo
Modern Physics	(5th sem., 3-2h)	J. Krempaský
Thermodynamics of Materials and Statist. Physics	(5th sem., 3-2h)	M. Moško
Solid State Physics	(6th sem., 3-2h)	R. Durný
Modern Methods of Material Diagnostics	(6th sem., 3-2h)	E. Dobročka

III.2 Graduate Study (Ing.)

Physics of Processes	(1st sem., 3-2h)	P. Bokes
Superconductivity and Low Temperature Physics	(1st sem., 2-2h)	P. Valko
Nanotechnologies	(1st sem., 2-2h)	J. Cirák
Bioelectronics	(1st sem., 2-1h)	J. Cirák
Principles of Applied Optics	(1st sem., 2-2h)	J. Vajda
Non-equilibrium Systems and Chaos	(1st sem., 3-2h)	P. Ballo
Physics of Materials I	(3rd sem., 3-2h)	P. Dieška, R. Durný
Applied Optics	(2nd sem., 3-2h)	J. Vajda
Biomaterials and Biosystems	(2nd sem., 2-2h)	J. Cirák

III.3 Undergraduate and Graduate Study for Foreign Students (in English Language)

Seminar - Physics I	(1st sem., 2-0h)	R. Durný
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IV. RESEARCH PROJECTS

- Nanostructures for development of biosensors. APVV-0362-07, J. Cirák
- Physical properties of organic two-dimensional systems and formation of nanostructures for molecular electronics. VEGA 1/3038/06, J. Cirák
- Hybrid spintronic nanostructures controlled by spin-polarized current. APVV-0173-06, J. Cirák
- Advanced opto- and micro-electronic devices based on organic materials. APVV-0290-06, J. Cirák
- Preparation and properties of organic thin film transistors. Wissenschaft und Erziehung Kooperation. J. Cirák
- The role of water in porous structures. VEGA 2/0146/08, P. Dieška, P. Ballo
- Thermophysical sensors. APVV-0497-07, P. Dieška
- Manipulation of nanoparticles by means of AFM techniques. VEGA 1/4008/07, P. Dieška, M. Konôpka
- Sound, image and biomedical signals digital processing 102/VTP/2000, J. Bielek, P. Fuchs
- Gradient materials prepared by powder metallurgy of micro- and nano-particles. APVV-20-057805, J. Bielek
- Investigation of magnetic materials for electrical engineering, electronics, recording and electromagnetic compatibility applications. VEGA 1/3096/06. J. Bielek, J. Sláma
- Analysis of kinetics of reactions connected with charge transfer in solid and liquid systems. 2/1013/22, R. Durný
- Interactive multimedia project of teaching physics at technical universities. KEGA 3/108003, P. Ballo, J. Krempaský, I. Červeň

V. COOPERATION

V.1 Cooperation in Slovakia

- Faculty of Chemical and Food Technology, STU, Bratislava
- Faculty of Informatics and Information Technologies, STU, Bratislava
- Faculty of Mechanical Engineering, STU, Bratislava
- Faculty of Material Technology, STU, Trnava
- University of Trnava, Trnava
- Natural Science Faculty, Comenius University, Bratislava
- School of Medicine, Comenius University, Bratislava
- Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava
- Faculty of Pharmacy, Comenius University, Bratislava
- Faculty of Industrial Technologies, University of Trenčín, Púchov
- Electrotechnical Faculty, University of Žilina, Žilina
- Institute of Physics, Slovak Academy of Sciences, Bratislava
- Institute of Electrical Engineering, Slovak Academy of Sciences, Bratislava
- Institute of Anorganic Chemistry, Slovak Academy of Sciences, Bratislava
- Institute of Polymers, Slovak Academy of Sciences, Bratislava
- Institute of Informatics, Slovak Academy of Sciences, Bratislava
- Geophysical Institute, Slovak Academy of Sciences, Bratislava
- Institute of Materials and Machine Mechanics, Slovak Academy of Sciences, Bratislava

V.2 International Cooperation

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- Tomáš Baťa University, Zlín, CzR
 - Institute of Macromolecular Chemistry, AVČR, Prague, CzR
 - University of West Bohemia, Plzeň, CzR
 - Institute of Materials Science - Demokritos, Athens, Greece
 - Tokyo Institute of Technology, Tokyo, Japan
 - Fukuoka University, Fukuoka, Japan
 - Fudan University, Shanghai, China
 - University of York the UK
 - Universidad Autónoma de Madrid, Spain
 - Universidad Politénica de Catalunya, Barcelona, Spain
 - Centro de Física Nuclear, Lisbon, Portugal
 - PTB Braunschweig, Germany
 - Ruhr Universität, Bochum, Germany
 - Technische Universität, Munich, Germany
 - Physikalisches Institut, Universität Münster, Germany
 - Delft University, Delft, The Netherlands
 - Institute of Solid State Physics, Graz University of Technology, Graz, Austria
 - Università di Modena e Reggio Emilia, Modena, Italy

V.3 Membership in International Organizations and Societies

- P. Bokes, J. Cirák: American Physical Society
- P. Ballo, P. Bokes, J. Cirák, I. Červeň, R. Durný, J. Krempaský, P. Valko: Europhysical Society
- J. Cirák: IEEE
- P. Bokes: Institute of Physics
- J. Krempaský: The New York Academy of Sciences
- J. Krempaský: Academia Scientiarum et Artium Europaea
- P. Markoš: Optical Society of America

VI. THESES

VI.1 Master Theses

Master thesis supervised at the Department of Physics. The name of supervisor is in brackets.

- [1] Macauley Natália: Study of processes in immunosensors using impedance spectroscopy and surface plasmon resonance. (J. Cirák)
- [2] J. Sukuba: Surface quality testing by Brewster microscopy. (P. Ballo)
- [3] T. Váry: Surface electromagnetic waves. (P. Markoš)

VI.2 Doctoral Theses

- [1] J. Brndiar: Localization. Anderson metal-insulator transition. (P. Markoš)

VII. OTHER ACTIVITIES

- Organizing the 14th international workshop - Applied Physics of Condensed Matter, APCOM '08. Bystrá, 25.-27.6.2008. P. Ballo, J. Vajda, M. Vančo, M. Weis
- Club of physicists: J. Cirák
- Board of editors, Journal Electrical Engineering. P. Ballo
- SPIE conference, Strasbourg. P. Markoš
- International Commission for Optics, Sydney 2008. P. Markoš

VIII. PUBLICATIONS

VIII.1 Journals

- [1] BALLO, P., HARMATHA, L., DONOVAL, D.: Oxygen Defect in Silicon Studied by Semi-Empirical Calculations. In: Computational Materials Science. - ISSN 0927-0256. - Vol. 42 (2008), p. 380-384. (in English)

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- [2] BEŇO, J., WEIS, M., DOBROČKA, E., HAŠKO, D.: Mixed 2D Molecular Systems: Mechanic, Thermodynamic and Dielectric Properties. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 254 (2008), p. 6370-6375. (in English)
- [3] BOKES, P., CORSETTI, F., GODBY, R.W.: Stroboscopic Wave-Packet Description of Nonequilibrium Many-Electron Problems. In: Physical Review Letters. - ISSN 0031-9007. - Vol. 101 (2008), p. 046402.1-4. (in English)
- [4] BRNDIAR, J., MARKOŠ, P.: Character of Eigenstates of the Three-Dimensional Disordered Hamiltonian. In: Physical Review B. - ISSN 1098-0121. - Vol. 77 (2008), p. 115131-7. (in English)
- [5] ČERVENĚ, I.: Terms 'Time' and 'Duration' from the Physical and Technological Point of View. In: Kultúra slova. - Vol. 42, No. 5 (2008), p. 288-290. (in Slovak)
- [6] GMUCOVÁ, K., WEIS, M., NÁDAŽDY, V., CAPEK, I., ŠATKA, A., CHITU, L., CIRÁK, J., MAJKOVÁ, E.: Effect of Charged Deep States in Hydrogenated Amorphous Silicon on the Behavior of Iron Oxides Nanoparticles Deposited on Its Surface. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 254 (2008), p. 7008-7013. (in English)
- [7] GMUCOVÁ, K., WEIS, M., NÁDAŽDY, V., MAJKOVÁ, E.: Orientation Ordering of Nanoparticle Ag/Co Cores Controlled by Electric and Magnetic Fields. In: ChemPhysChem. - Vol. 9 (2008), p. 1036-1039. (in English)
- [8] KONÔPKA, M., TURANSKÝ, R., REICHERT, J., FUCHS, H., MARX, D., ŠTICH, I.: Mechanochemistry and Thermochemistry are Different: Stress-Induced Strengthening of Chemical Bonds. In: Physical Review Letters. - ISSN 0031-9007. - Vol. 100 (2008), p. 115503.1-4. (in English)
- [9] KOVÁČIK, J., EMMER, Š., BIELEK, J., KELEŠI, Ľ.: Effect of Composition on Friction Coefficient of Cu-Graphite Composites. In: Wear. - ISSN 0043-1648. - Vol. 265, No. 3-4 (2008), p. 417-421. (in English)
- [10] KREMPASKÝ, J.: Physics and Culture in Time of Globalization. In: RaN. - Vol. 11, No. 2 (2008), p. 4-14. (in Slovak)
- [11] KRŠJAK, V., SLUGEŇ, V., MIKLOŠ, M., PETRISKA, M., BALLO, P.: Application of Positron Annihilation Spectroscopy on the Ion Implantation Damaged Fe-Cr Alloys. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 255 (2008), p. 153-156. (in English)
- [12] LALINSKÝ, T., DRŽÍK, M., JAKOVENKO, J., VANKO, G., MOZOLOVÁ, Ž., HAŠČÍK, Š., CHLPÍK, J., HOTOVÝ, I., ŘEHÁČEK, V., KOSTIČ, I., MATAY, L., HUSÁK, M.: GaAs Based Micromachined Thermal Converter for Gas Sensors. In: Sensors and Actuators A. Physical Sensors. - ISSN 0924-4247. - Vol. 142 (2008), p. 147-152. (in English)
- [13] NÁDAŽDY, V., DURNÝ, R., PUIGDOLLERS, J., VOZ, C., CHEYLAN, S., WEIS, M.: Defect States in Pentacene Thin Films Prepared by Thermal Evaporation and Langmuir-Blodgett Technique. In: Journal of Non-Crystalline Solids. - ISSN 0022-3093. - Vol. 354 (2008), p. 2888-2891. (in English)
- [14] RÖSCHLOVÁ, J., WEIS, M., CIRÁK, J., NISHIDA, A., DEKAN, J., PETRIDIS, D., ŠATKA, A.: Effect of Polydispersity on the Magnetic Properties of Ordered 2D Arrays of Ferrite Nanoparticles. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 59, No. 6 (2008), p. 328-331. (in English)
- [15] SCHWEITZER, L., MARKOŠ, P.: Disorder-Driven Splitting of the Conductance Peak at the Dirac Point in Graphene. In: Physical Review B. - ISSN 1098-0121. - Vol. 78 (2008), p. 205419.1-8. (in English)
- [16] WEIS, M., VAJDA, J.: Analysis of Mechanically Induced Processes in the Langmuir Film. In: Applied Surface Science. - ISSN 0169-4332. - Vol. 254 (2008), p. 3093-3099. (in English)

- [17] WEIS, M., GMUCOVÁ, K., NÁDAŽDY, V., CAPEK, I., ŠATKA, A., KOPÁNI, M., CIRÁK, J., MAJKOVÁ, E.: Control of Single-Electron Charging of Metallic Nanoparticles onto Amorphous Silicon Surface. In: *Journal of Nanoscience and Nanotechnology*. - Vol. 8 (2008), p. 5684-5689. (in English)
- [18] WEIS, M., KOPÁNI, M.: Influence of Vitamin C on Alcohol Binding to Phospholipid Monolayers. In: *European Biophysics Journal*. - ISSN 0175-7571. - Vol. 37 (2008), p. 893-901. (in English)

VIII.2 Conference Proceedings

- [1] BALLO, P., HARMATHA, L.: Zinc Oxide Promising Material. In: *APCOM 2008. Applied Physics of Condensed Matter: Proceedings of the 14th International Workshop*. Bystrá, Slovak Republic, 25.-27.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2902-4. - p. 24-27. (in English)
- [2] BOKES, P.: Non-Linear and Time-Dependent Quantum Transport and Its Description Using Stroboscopic Wavepacket Basis. In: *13th ETSF Nanoquanta Conference: Pugnuchiuso, Italy*, 22.-27.9.2008. - p. 23. (in English)
- [3] BOKES, P.: Scattering of Electrons from an Edge and the Spin Hall Effect. In: *APCOM 2008. Applied Physics of Condensed Matter: Proceedings of 14th International Workshop*. Bystrá, Slovak Republic, 25.-27.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2902-4. - p. 36-40. (in English)
- [4] BUDINSKÝ, J., ČERVENĚ, I., BALLO, P.: Innovation of Laboratory Exercises Manuals at Department of Physics of FEI STU in Bratislava. In: *Research and Education Activities at Departments of Physics at Technical Universities*. Bratislava, Slovak Republic, 3.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2887-4. - p. 21-22. (in Slovak)
- [5] ČERVENĚ, I.: Fundamental Physical Constants and Basic SI Units. In: *Research and Education Activities at Departments of Physics at Technical Universities*. Bratislava, Slovak Republic, 3.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2887-4. - p. 29-31. (in Slovak)
- [6] CIRÁK, J.: Selfordered Monolayers in Molecular Nanotechnology. In: *Research and Education Activities at Departments of Physics at Technical Universities*. Bratislava, Slovak Republic, 3.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2887-4. - p. 23-28. (in Slovak)
- [7] CIRÁK, J., WEIS, M., JANÍČEK, R., HIANIK, T.: Study of Molecular Interactions in a Monolayer for the Development of Novel Sensor Interfaces. In: *APCOM 2008. Applied Physics of Condensed Matter: Proceedings of 14th International Workshop*. Bystrá, Slovak Republic, 25.-27.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2902-4. - p. 49-52. (in English)
- [8] ETSHMAIER, H., PACHER, P., WEIS, M., CIRÁK, J., LEX, A., FLESCHE, G.H., RESEL, R., HAASE, A., TRIMMEL, G., ZOJER, A.: Influencing the Growth of Pentacene with Langmuir Blodgett Films. In: *Winterschool on Organic Electronics. The Role of Interfaces: Donnersbach, Austria*, 26.-31.2008. - Graz: TU, 2008. (in English)
- [9] FLESCHE, G.H., WERZER, O., WEIS, M., JAKABOVIČ, J., KOVÁČ, J., HAŠKO, D., JAKOPIC, G., WONDERGEM, H.J., RESEL, R.: A Combined x-Ray, Ellipsometry and Atomic Force Microscopy Study on Thin Parylene-C-Films. In: *XTOP 2008: 9th Biannual Conference on High Resolution X-Ray Diffraction and Imaging*. Linz, Austria, 15.-19.9.2008. - Linz: Johannes Kepler Universität, 2008. - p. 174. (in English)
- [10] GMUCOVÁ, K., WEIS, M.: Hydrogen Related Defect States in Pentacene. In: *APCOM 2008. Applied Physics of Condensed Matter: Proceedings of 14th International Workshop*.

- Bystrá, Slovak Republic, 25.-27.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2902-4. - p. 74-77. (in English)
- [11] HARMATHA, L., MIKOLÁŠEK, M., BALLO, P., VINCZE, A.: Optimization of Selected Preparation Processes of MOS Structures for Power Electronics. In: APCOM 2008. Applied Physics of Condensed Matter: Proceedings of 14th International Workshop. Bystrá, Slovak Republic, 25.-27.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2902-4. - p. 78-81. (in English)
- [12] JAKABOVIČ, J., KOVÁČ, J., SRNÁNEK, R., KOVÁČ, J., WEIS, M., CIRÁK, J.: Interface Modification of Pentacene OFET Gate Dielectrics. In: E-MRS 2008 Spring Meeting: Strasbourg, France, 26.5.-30.5.2008. - Strasbourg: European Materials Research Society, 2008. - p. 6. (in English)
- [13] JAKABOVIČ, J., KOVÁČ, J., SRNÁNEK, R., KOVÁČ, J., HAŠKO, D., SOKOLSKÝ, M., CIRÁK, J.: Pentacene OTFT Gate Dielectric Modification. In: APCOM 2008. Applied Physics of Condensed Matter: Proceedings of 14th International Workshop. Bystrá, Slovak Republic, 25.-27.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2902-4. - p. 275-278. (in English)
- [14] JAKABOVIČ, J., KOVÁČ, J., SRNÁNEK, R., KOVÁČ, J., SOKOLSKÝ, M., HAŠKO, D.: Pentacene OTFT with Parylene Gate Dielectric. In: ASDAM 2008. 7th International Conference on Advanced Semiconductor Devices and Microsystems: Smolenice, Slovak Republic, 12.-16.10.2008. - Piscataway: IEEE, 2008. - ISBN 978-1-4244-2325-5. - p. 147-150. (in English)
- [15] JAKABOVIČ, J., KOVÁČ, J., WEIS, M., HAŠKO, D., VALENT, P., RESEL, R.: Preparation and Properties of Thin Parylene Layers as the Gate Dielectrics for Organic Field Effect Transistors. In: Workshop on Recent Advances of Low Dimensional Structures and Devices: Nottingham, UK, 7.-9.4.2008. - University of Nottingham, 2008. - p. 74. (in English)
- [16] KOPÁNI, M., WEIS, M., DEKAN, J., JAKUBOVSKÝ, J., MIGLIERINI, M.: Analysis of Iron Forms in the Human Spleen. In: Proceedings of the 3rd Slovak Biophysical Symposium, Bratislava, Slovak Republic, 18.-20.4.2008. - ISBN 978-80-89186-31-0. - p. 32-33. (in English)
- [17] KOPÁNI, M., DEKAN, J., WEIS, M., MÁLEK, T., MIGLIERINI, M., JAKUBOVSKÝ, J.: Analysis of Iron Particles in the Human Spleen. In: TOXCON 2008. Integration of Toxicological Research within V4: 13th Interdisciplinary Toxicology Conference. Trenčianske Teplice, Slovak Republic, 27.-30.5.2008. (in English)
- [18] KOPÁNI, M., WEIS, M., DEKAN, J., MÁLEK, T., JAKUBOVSKÝ, J., MIGLIERINI, M., MISTINOVÁ, J., POLÁK, Š.: Iron Particles in the Human Spleen. In: 9th Asia-Pacific Microscopy Conference in Conjunction with the 39th Annual Meeting of the Korean Society of Microscopy: Jeju, Korea, 2.-7.11.2008. - Seoul Korea: Korean Society of Microscopy, 2008. - p. 173-174. (in English)
- [19] MÜLLEROVÁ, J., WEIS, M.: UV Vis Optical Absorption in Spin-Coated thin Films of MEH-PPV and P3HT Conjugated Polymers. In: APCOM 2008. Applied Physics of Condensed Matter: Proceedings of 14th International Workshop. Bystrá, Slovak Republic, 25.-27.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-227-2902-4. - p. 159-162. (in English)
- [20] NÁDAŽDY, V., DURNÝ, R., WEIS, M., JAKABOVIČ, J.: Defect States in Pentacene Thin Films Prepared by Thermal Evaporation and Langmuir-Blodgett Technique. In: APCOM 2008. Applied Physics of Condensed Matter: Proceedings of the 14th International Workshop. Bystrá, Slovak Republic, 25.-27.6.2008. - Bratislava: STU, 2008. - ISBN 978-80-

227-2902-4. - p. 163-166. (in English)

- [21] TVAROŽEK, V., FLICKYNGEROVÁ, S., NOVOTNÝ, I., REHÁKOVÁ, A., ŠUTTA, P., NETRVALOVÁ, M., GAŠPIERIK, P., PRUSAKOVA, L., BALLO, P., VAVRINSKÝ, E.: Influence of Spatial Sputtering Distribution on TCO Thin Film Properties. In: ICTF 14: 14th International Conference on Thin Films and Reactive Sputter Deposition. Ghent, Belgium, 17.-20.11.2008. - Ghent, 2008. - ISBN 978-90-334-7347-0. - p. 247. (in English)
- [22] TVAROŽEK, V., ŠUTTA, P., NOVOTNÝ, I., BALLO, P., HARMATHA, L., FLICKYNGEROVÁ, S., PRUŠÁKOVÁ, L., NETRVALOVÁ, M., VAVRUŇKOVÁ, V., PULLMANNOVÁ, A., VAVRINSKÝ, E., GAŠPIERIK, P., MIKOLÁŠEK, M.: Preparation of Transparent Conductive AZO Thin Films for Solar Cells. In: ASDAM 2008. 7th International Conference on Advanced Semiconductor Devices and Microsystems: Smolenice, Slovak Republic, 12.-16.10.2008. - Piscataway: IEEE, 2008. - ISBN 978-1-4244-2325-5. (in English)

VIII.3 Book

- [1] MARKOŠ, P., SOUKOULIS, C.M.: Wave Propagation: From Electrons to Photonic Crystals and Left-Handed Materials. - Princeton: Princeton University Press, 2008. - 376 p. - ISBN 978-0-691-13003-3. (in English)

VIII.4 Part of Book

- [1] KONÔPKA, M., TURANSKÝ, R., DOLTSINIS, N.L., MARX, D., ŠTICH, I.: Azobenzene-Metal Junction as a Mechanically and Opto-Mechanically Driven Switch. In: High Performance Computing in Science and Engineering '08. - Berlin: Springer Verlag, 2008. - ISBN 978-3-540-88301-2. - p. 95-108. (in English)