

# 43<sup>rd</sup> "Jaszowiec" 2014

## International School & Conference on the Physics of Semiconductors

WISŁA, POLAND  
June 7<sup>th</sup> – 12<sup>th</sup>, 2014



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Organized by:  
Institute of Physics, Polish Academy of Sciences  
Faculty of Physics, University of Warsaw  
Institute of High Pressure Physics, Polish Academy of Sciences  
Institute of Physics, Wrocław University of Technology  
Institute of Electron Technology

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<http://info.ifpan.edu.pl/Jaszowiec>

Warsaw, 2014

## Saturday, June 7<sup>th</sup>, 2014

**9:50 – 10:00** Łukasz Kłopotowski – School opening address

### INVITED LECTURES (SaI1 - SaI3)

**10:00 – 12:00** **Evgeny A. Chekhovich** (University of Sheffield, Sheffield, United Kingdom)  
*Physics of nuclear spins in quantum dots*

12:00 – 12:30 Coffee Break

**12:30 – 14:30** **Jakub Tworzydło** (Department of Physics, University of Warsaw, Warsaw, Poland)  
*Physics of Majorana fermions*

14:30 – 16:30 Lunch break

**16:30 – 18:30** **Hubert J. Krenner** (Universität Augsburg, Augsburg, Germany)  
*Acousto-mechanical control of optically active nanosystems*

**19:00** Barbecue

## Sunday, June 8<sup>th</sup>, 2014

### INVITED LECTURES (SuI1 - SuI3)

**9:00 – 11:00** **Paul Koenraad** (COBRA, Eindhoven University of Technology, The Netherlands)  
*Single impurities in semiconductors studied by STM*

11:00 – 11:30 Coffee Break

**11:30 – 13:30** **Charles Gould** (University of Würzburg, EP3, Würzburg Germany)  
*Injection, detection, and control of spin current*

13:30 – 15:30 Lunch break

**15:30 – 17:30** **Tadeusz Suski** (Institute of High Pressure Physics UNIPRESS, Polish Academy of Sciences, Warsaw, Poland)  
*Physics and Applications of Group III-nitride Semiconductors*

## Monday, June 9<sup>th</sup>, 2014

**8:50 – 9:00 Adam Babiński – Conference opening address**

**INVITED LECTURES (MoI1 - MoI2) Chair: Marian Grynberg**

**9:00 – 9:55 Denis M. Basko** (Université Grenoble Alpes, and CNRS, Grenoble, France)

*Topological Transitions in Dirac-type Electronic Systems Probed by Magneto-Optical Spectroscopy*

**9:55 – 10:50 Stephan Reitzenstein** (Institut für Festkörperphysik, Technische Universität Berlin, Germany)

*Novel concepts for deterministic quantum light sources and on-chip quantum optics*

10:50 – 11:20 Coffee Break

**INVITED LECTURES (MoI3 - MoI4) Chair: Michal Baj**

**11:20 – 12:15 Kohei M. Itoh** (Keio University, Yokohama, Japan)

*Quantum sensing using negatively charged nitrogen-vacancy centers in a 5nm-thin, isotopically enriched <sup>12</sup>C diamond CVD layer*

**12:15 – 13:10 Janusz Tobola** (AGH University of Science and Technology, Krakow, Poland)

*Equivocal role of relativistic effects in thermoelectric conversion. Theoretical study of Mg<sub>2</sub>X (X = Si, Ge, Sn) compounds*

13:10 – 15:10 Lunch break

**CONTRIBUTED TALKS (MoO1 - MoO4) Chair: Piotr Kossacki**

**15:10 – 15:25 M. Majewicz**, G. Grabecki, J. Wrobel, M. Czapkiewicz, Ł. Cywinski, M. Papaj, S. Gieraltowska, M. Godlewski, M. Zholudev, V. Gavrilenko, N.N. Mikhailov, S.A. Cvoretski, W. Knap, F. Teppe, T. Dietl,

*Local and non-local resistance fluctuations in HgTe/(Hg,Cd)Te micro-Hall bars and nanoconstrictions*

**15:25 – 15:40 M. Pelc**, L. Chico, E. Suárez-Morell, M. Pacheco, L. Brey

*Transport properties of twisted bilayer nanoribbons*

**15:40 – 15:55 A.A. Mitioglu**, P. Plochocka, J.N. Jadczyk, W. Escoffier, G.L. Rikken, L.L. Kulyuk, D.K. Maude

*Optical Manipulation of the Exciton Charge State in Single Layer Tungsten Disulfide*

**15:55 – 16:10 K. Szalowski**

*Control of indirect magnetic coupling through a graphene nanostructure by electric field*

16:10 – 16:25 Break

**CONTRIBUTED TALKS (MoO5 - MoO7) Chair: Marian Nowak**

**16:25 – 16:40 M. Szymura**, Ł. Kłopotowski, P. Wojnar, M. Goryca, P. Kossacki, W. Zaleszczyk, G. Karczewski, T. Wojtowicz, J. Kossut

*Spin splitting anisotropy in CdMnTe quantum dots embedded in ZnTe nanowires*

- 16:40 – 16:55** **A. Musiał**, C. Hopfmann, M. Strauß, C. Schneider, S. Höfling, M. Kamp, S. Reitzenstein  
*Coherent and Sequential Photonic Coupling of Semiconductor Quantum Dots in Micropillar Cavities*
- 16:55 – 17:10** **M. Pieczarka**, Ł. Dusanowski, M. Syperek, P. Podemski, J. Misiewicz, G. Sęk, F. Langer, M. Kamp, C. Schneider, S. Höfling  
*Peculiarities in the exciton-polariton emission in InGaAs/GaAs quantum well-microcavity system under high excitation*
- 17:10 – 18:45 Break
- CONTRIBUTED TALKS (MoO8 – MoO10) Chair: Bogdan Kowalski**
- 18:45 – 19:00** **G.V. Budkin**, S. Stachel, U. Hagner, V.V. Bel'kov, M.M. Glazov, S.A. Tarasenko, S.K. Clowes, T. Ashley, A.M. Gilbertson, S.D. Ganichev  
*Photon drag current in quantum wells enhanced by cyclotron motion*
- 19:00 – 19:15** **M.P. Nowak**, K. Kolasieński, B. Szafran  
*Scanning gate microscopy of electron flow from a spin-orbit-coupled quantum point contact*
- 19:15 – 19:30** **S. Birindelli**, M. Felici, J.S. Wildmann, G. Pettinari, A. Polimeni, M. Capizzi, A. Gerardino, S. Rubini, F. Martelli, A. Rastelli, R. Trotta  
*Single photon emission from novel site-controlled Ga(AsN) quantum dots*
- COMMERCIAL PRESENTATION (MoS)**
- 19:30 – 19:45** **Ł. Zarodkiewicz**, A. Wiśniewski  
*COMEF Aparatura Naukowo-Badawcza*
- 19:45 – 20:00 Break
- CONTRIBUTED TALKS (MoO11– MoO14) Chair: Antoni Ciszewski**
- 20:00 – 20:15** S. Krukowski, P. Kempisty, **P. Strak**, K. Sakowski  
*Role of charge transfer at surfaces in determination of adsorption energy - consequences to vapor growth and doping of semiconductors*
- 20:15 – 20:30** **Ł. Dusanowski**, P. Mrowiński, M. Syperek, W. Rudno-Rudziński, G. Sęk, J. Misiewicz, A. Somers, J.P. Reithmaier, S. Höfling, M. Kamp  
*Single photon emission from quantum dashes at the telecommunication wavelengths*
- 20:30 – 20:45** **I. Grigelionis**, M. Białek, K. Nogajewski, K. Karpierz, M. Grynberg, G. Karczewski, T. Wojtowicz, J. Wróbel, M. Czapkiewicz, V. Kolkovskiy, M. Wiater, T. Wojciechowski, N. Dyakonova, F. Teppé, W. Knap, H. Boukari, H. Mariette, J. Łusakowski  
*Magnetoplasmon devices based on high-quality CdTe/CdMgTe quantum wells*
- 20:45 – 21:00** **M. Szot**, L. Kowalczyk, K. Dybko, P. Dziawa, B. Taliashvili, S. Schreyeck, S. Chusnutdinow, A. Reszka, B.J. Kowalski, P. Dłużewski, M. Wiater, T. Wojtowicz, L.W. Molenkamp, G. Karczewski, T. Story  
*Dual functionality of CdTe/PbTe epitaxial heterosystem*
- 21:00 – 21:05 Break
- 21:05 – 23:00** **MONDAY POSTER SESSION (MoP1 ... MoP63)**

## Tuesday, June 10<sup>th</sup>, 2014

### INVITED LECTURES (TuI1 - TuI2) Chair: Karol Wysokiński

- 9:00 – 9:55** **Ryszard Buczko** (Institute of Physics, Polish Academy of Sciences, Warsaw, Poland)  
*Surface states of topological crystalline insulators*
- 9:55 – 10:50** **Vidya Madhavan** (Department of Physics, Boston College, Massachusetts, USA)  
*Coexistence of Massless and Massive Dirac Fermions in Topological Crystalline Insulators*
- 10:50 – 11:20 Coffee Break

### INVITED LECTURES (TuI3 - TuI4) Chair: Witold Bardyszewski

- 11:20 – 12:15** **Felix von Oppen** (Freie Universität Berlin, Germany)  
*The search for Majorana fermions in condensed matter systems*
- 12:15 – 13:10** **Peter Krogstrup** (Center of Quantum Devices, Niels Bohr Institute, University of Copenhagen, Denmark)  
*Semiconductor – Superconductor Nanowire Epitaxy Growth, characterization and applications*
- 13:10 – 15:10 Lunch break

### CONTRIBUTED TALKS (TuO1 - TuO2) Chair: Jerzy Łusakowski

- 19:00 – 19:15** **C.M. Polley**, P. Dziawa, A. Reszka, A. Szczerbakow, R. Minikayev, J. Z. Domagala, S. Safaei, P- Kacman, R. Buczko, J. Adell, M. H. Berntsen, B. M. Wojek, O. Tjernberg, B. J. Kowalski, T. Story, T. Balasubramanian  
*ARPES studies of (111)-oriented (Pb,Sn)Se, a topological crystalline insulator*
- 19:15 – 19:30** **J. Binder**, J. Urban, R. Stępniewski, W. Strupiński, A. Wymołek  
*Hydrogen intercalated graphene for aqueous solution gated field effect transistors: An in-situ Raman / electrical study*

### COMMERCIAL PRESENTATION (TuS)

- 19:30 – 19:50** **Grzegorz Zieliński**  
*BRUKER Polska Sp. z o.o.*
- 19:50 – 20:05 Break

### CONTRIBUTED TALKS (TuO3 - TuO5) Chair: Jerzy Łusakowski

- 20:05 – 20:20** **S. Stefanowicz**, A. Navarro-Quezada, T. Devillers, T. Li, R. Jakiela, W. Stefanowicz, T. Dietl, A. Bonanni, M. Sawicki  
*Magnetic structure of Fe-rich nanocrystals in a GaN plane*

**20:20 – 20:35 T.R. Arslanov**, L. Kilanski, A.Yu. Mollaev, I.K. Kamilov, R.K. Arslanov, U.Z. Zalibekov, S. López-Moreno, A.H. Romero, R.H. López-Bañuelos, M. Ramzan, P. Panigrahi, R. Ahuja, T. Chatterji, V.M. Trukhan, S.F. Marenkin, T.V. Shoukavaya  
*Pressure Control of Magnetic Clusters in Strongly Inhomogeneous Ferromagnetic Chalcopyrites*

**20:35 – 20:50 H. Turski**, G. Muziol, M. Siekacz, P. Wolny, G. Cywinski, E. Grzanka, S. Grzanka, M. Baranowski, R. Kudrawiec, Z. Wasilewski, C. Skierbiszewski  
*Quantum wells for long wavelength laser diodes grown by plasma-assisted MBE*

20:50 – 21:05 Break

**21:05 – 23:00 TUESDAY POSTER SESSION (TuP1 ... TuP65)**

## Wednesday, June 11<sup>th</sup>, 2014

### INVITED LECTURES (WeI1 - WeI2) Chair: Michał Nawrocki

**9:00 – 9:55** **Jainendra K. Jain** (Pennsylvania State University, USA)  
*Composite fermions: spin physics and crystallization*

**9:55 – 10:50** **Jesus Zuniga-Perez** (CRHEA–CNRS, Valbonne, France)  
*Room-temperature polaritonics based on ZnO*

10:50 – 11:20 Coffee Break

### INVITED LECTURES (WeI3 - WeI4) Chair: Witold Dobrowolski

**11:20 – 12:15** **Russell D. Dupuis** (Georgia Institute of Technology, Atlanta, USA)  
*Wide-Bandgap III-N Ultraviolet Light Emitters and Power Electronic Devices*

**12:15 – 13:10** **Izabella Grzegory** (Institute of High Pressure Physics of Polish Academy of Sciences, Warsaw, Poland)  
*Recent Advances in Growth of Bulk GaN*

13:10 – 15:10 Lunch break

**19:00 – 20:00** **Concert – chamber music performed by young artists, laureates of international music competitions**

**Julia Blachuta** – violin

**Radosław Wiczorek** – guitar

**Rachela Wasilewska** – cello

**20:05** **Conference Banquet**

## Thursday, June 12<sup>th</sup>, 2014

### INVITED LECTURES (ThI1 - ThI3) Chair: Marek Potemski

**9:55 – 10:50** **Richard J. Warburton** (Department of Physics, University of Basel, Basel Switzerland)

*Single spins in self-assembled quantum dots*

10:50 – 11:20 Coffee Break

**11:20 – 12:15** **Paweł Machnikowski** (Institute of Physics, Wrocław University of Technology, Wrocław, Poland)

*Phonon effect on the singlet-triplet measurement of spins in quantum dots*

**12:15 – 13:10** **Wojciech Pacuski** (University of Warsaw, Warsaw, Poland)

*Individual cobalt and manganese ions in quantum dots*

13:10 – 15:10 Lunch break

### 16:00 – 18:00 THURSDAY POSTER SESSION (ThP1 ... ThP65)

#### CONTRIBUTED TALKS (ThO1 - ThO4) Chair: Tadeusz Groń

**19:00 – 19:15** **J. Kobak**, T. Smoleński, T. Kazimierzczuk, J. Suffczyński, J.G. Rousset, C. Kruse, D. Hommel, P. Kossacki, A. Golnik, W. Pacuski

*Light hole excitonic states in CdTe/ZnTe QDs*

**19:15 – 19:30** **M. Zieliński**

*Fine structure of light-hole excitons in nanowire quantum dots*

**19:30 – 19:45** **M. Pilat**, Ł. Kłopotowski, P. Wojnar, K. Fronc, G. Karczewski, J. Kossut

*Probing the Increased Hole Confinement in CdTe Quantum Dots*

**19:45 – 20:00** **T. Smoleński**, W. Pacuski, M. Goryca, J. Kobak, J.-G. Rousset, A. Golnik, M. Nawrocki, P. Kossacki

*Efficient injection of spin-polarized excitons and Mn<sup>2+</sup> ion spin orientation in a CdSe/ZnSe quantum dot*

20:00 – 20:15 Break

#### CONTRIBUTED TALKS (ThO5 - ThO7) Chair: Leszek Bryja

**20:15 – 20:30** **J.G. Rousset**, J. Kobak, E. Janik, M. Nawrocki, A. Golnik, P. Kossacki, W. Pacuski

*High quality factor and strong coupling in a fully lattice matched II-VI based microcavity containing magnetic quantum wells*

**20:30 – 20:45** **P. Wojnar**, J. Suffczyński, T. Smoleński, W. Zaleszczyk, E. Janik, S. Kret, T. Wojciechowski, G. Karczewski, T. Wojtowicz, J. Kossut, P. Kossacki

*Magneto-optical anisotropy of ZnMnTe/ZnMgTe core/shell nanowires*

**20:45 – 21:00** **K. Gołasa**, M. Grzeszczyk, P. Leszczyński, M. Potemski, A. Babiński

*Resonant Raman scattering in MoS<sub>2</sub> – from bulk to monolayer*

**21:00 – 21:10** **Adam Babiński** – Conference closing address



**MONDAY POSTER SESSION (MoP1 – MoP63)**

1. M.S. Petrović, M.J. Romčević, N.Ž. Romčević, W.D. Dobrowolski, M.I. Čomor  
*Optical Properties of  $Cd_{1-x}Mn_xS$  Nanoparticles*
2. D.V. Savchenko, E.N. Kalabukhova, A. Pöpl  
*Pulsed EPR and ENDOR study of SiC nanopowders*
3. T.P. Surkova, V.I. Maksimov, S.F. Dubinin, M. Godlewski  
*Destabilizing factors and forming superstructures in the crystal lattice of highly doped  $Zn_{0.9}Ni_{0.1}S$  and  $Zn_{0.9}V_{0.1}Se$  cubic crystals*
4. A.P. Bakhtinov, V.N. Vodopyanov, Z.R. Kudrynskiy, Z.D. Kovalyuk, O.S. Lytvyn  
*Quasi-van der Waals epitaxy and characterization of PbSe nanostructures on the (0001) surfaces of layered crystals GaSe*
5. S. Wolski, C. Jasiukiewicz, V.K. Dugaev, J. Barnaś, T. Slobodskyy  
*Spin and charge transport through the Fe/MgO/GaAs heterostructure*
6. W. Jaskolski, A. Ayuela, L. Chico  
*Theory of the electronic structure of grain boundaries in graphene*
7. B. Sawicki, E. Tomaszewicz, H. Duda, T. Gron, P. Urbanowicz  
*I-V characteristics in  $RE_2W_2O_9$  ( $RE = Pr, Sm-Gd$ )*
8. J. Jadczyk, K.H. Lin, F.S. Huang, Y.S. Huang, L. Bryja, J. Misiewicz  
*Optical properties of  $ReS_2$  single crystals doped with Nb*
9. S. Chusnutdinov, V.P. Makhniy, M. Aleszkiewicz, W. Zaleszczyk, G. Karczewski, M.M. Slotov  
*The effect of surface modification on the physical properties of metal-ZnSe junctions*
10. E.N. Osika, A. Mreńca, B. Szafran  
*Time-dependent atomistic simulations of spin-valley transitions in carbon nanotube quantum dots*
11. A.I. Mostovyi, V.V. Brus, P.D. Maryanchuk, G.O. Andrushchak  
*Magnetic properties thin films of  $TiO_2 - Mn$*
12. M.M. Solovan, V.V. Brus, P.D. Maryanchuk, M.I. Ilashchuk, K.S. Ulyanitskiy  
*Mechanisms of current transport in anisotype heterojunctions n-  $TiN/p-CdZnTe$*
13. B. Hadžić, N. Romčević, M. Romčević, I. Kuryliszyn-Kudelska, W. Dobrowolski, U. Narkiewicz, D. Sibera  
*Influence of laser line power on Raman spectra of  $ZnO(Co)$*
14. A. Mreńca, B. Szafran  
*Scanning probe studies of localized states in antidots defined within graphene*
15. J. Kierdaszuk, P. Kaźmierczak, A. Drabińska, A. Wyszomłek, K. Korona, M. Kamińska, I. Pasternak, A. Krajewska, Z.R. Zytewicz  
*Optical and electrical studies of graphene deposited on GaN nanowires*

16. L.H. Dmowski, M. Baj, L. Kończewicz, A. Kwiatkowski, J. Przybytek, T. Suski, X.Q. Wang  
*High mobility 2D electrons in undoped InN epitaxial layers grown on N-polarity GaN buffer*
17. M. Jesionek, M. Nowak, P. Szperlich, M. Kępińska, K. Mistewicz, D. Stóż, J. Szala, T. Rzychoń  
*Properties of Sonochemically Prepared  $\text{CuIn}_x\text{Ga}_{1-x}\text{S}_2$  and  $\text{CuIn}_x\text{Ga}_{1-x}\text{Se}_2$*
18. I.P. Koziarskyi, E.V. Maistruk, D.P. Koziarskyi, P.D. Marianchuk  
*Optical and Electrical Properties of  $\text{Cu}_2\text{ZnSnSe}_4$  and  $\text{Cu}_2\text{ZnSnS}_2\text{Se}_2$  Thin Films*
19. M. Kępińska, A. Starczewska, P. Duka, M. Nowak, P. Szperlich  
*Optical Properties of SbSI photonic crystals*
20. M. Wołoszyn, B.J. Spisak, P. Wójcik, J. Adamowski  
*Effect of a double constriction on the magnetotransport properties of semiconductor nanowires*
21. A. Starczewska, B. Solecka, M. Nowak, P. Szperlich  
*Dielectric Properties of SbSI in the Temperature Range of 292-475 K*
22. V.I. Popovych, M.V. Dranchuk, G.V. Lashkarev, V.M. Tkach, O.M. Kutsay, S.P. Starik, V.V. Garashchenko, V.A. Baturin, O.Y. Karpenko, V.I. Lazorenko, R. Jakiela, A.I. Ievtushenko  
*The Study Of The Magnetron Power Effect On ZnO:Al Films Properties Deposited by Layer By Layer Magnetron Sputtering Method*
23. M.V. Dranchuk, V.I. Popovych, G.V. Lashkarev, V.A. Baturin, O.Y. Karpenko, V.M. Tkach, O.M. Kutsay, V.V. Garashchenko, S.P. Starik, V.I. Lazorenko, R. Jakiela, A.I. Ievtushenko  
*Effect of Substrate Temperature on Electrical and Structural Properties Al-doped Zinc Oxide Films Deposited by Magnetron Sputtering*
24. P. Mazur, S. Zuber, M. Grodzicki, A. Ciszewski  
*STM/AFM studies of ultrathin Sb layers growth on SiC(0001)*
25. K. Gołasa, M. Grzeszczyk, K. Nogajewski, M. Potemski, A. Babiński  
*Lattice dynamics in bulk tungsten diselenide ( $\text{WSe}_2$ )*
26. D.M. Bercha, S.A. Bercha, K.E. Glukhov, M. Sznajder  
*Electron-Phonon Interaction as a Mechanism of Phase Transition in a Layered  $\text{CuInP}_2\text{S}_6$  Crystal*
27. L.Yu. Kharkhalis, K.E. Glukhov, M. Sznajder  
*Peculiarities of the Elementary Energy Bands Formation and the Spatial Electron Density Distribution in Crystals of the In-Se System*
28. K. Ryczko, G. Sęk, J. Misiewicz  
*Crystal orientation dependence of the  $e1-hh1$  fundamental transition in type II W-design quantum well structures*
29. M. Załużny  
*Hybrid intersubband surface plasmon polaritons*
30. H. Bednarski, J. Spalek  
*Effect of thermodynamic fluctuations of magnetization on the bound magnetic polaron state in ferromagnetic semiconductors*

31. E.A. Evropeytsev, S.V. Sorokin, S.V. Gronin, I.V. Sedova, G.V. Klimko, A.A. Sitnikova, M.V. Baidakova, S.V. Ivanov, A.A. Toropov  
*Structural and optical properties of alternately-strained ZnSSe/ZnCdSe superlattices with effective band-gap 2.5 – 2.6 eV*
32. M. Stachowicz, J.M. Sajkowski, E. Przeddziecka, M.A. Pietrzyk, A. Kozanecki, M. Syperek, B. Witkowski  
*Investigations of ZnO/Mg<sub>x</sub>Zn<sub>1-x</sub>O double quantum wells grown on m- plane ZnO substrates*
33. T.A. Krajewski, R. Schifano, D. Snigurenko, E. Guziewicz, K. Kopalko, M. Godlewski, K. Gościński  
*Electrical Characterization of ZnO-based Junctions Prepared by the Atomic Layer Deposition Method - Possible Ways to Improve the Device Rectifying Properties*
34. E. Chikoidze, M. Boshta, M.H. Sayed, C. Villard, Y. Dumont  
*Transparent Conducting ZnO with (Fe, Ni, V) Magnetic Impurities*
35. J.M. Sajkowski, D. Jarosz, M. Stachowicz, D. Dobosz, E. Przeddziecka, A. Kozanecki, M.A. Pietrzyk, H. Teisseyre, M. Syperek  
*Investigation of optical properties of double asymmetric ZnMgO/ZnO/ZnMgO quantum wells grown by PA-MBE*
36. D.P. Żebrowski, B. Szafran  
*Schrödinger-Poisson scheme for description of a quantum dot gate defined within bilayer graphene*
37. M. Nowakowska, A. Kaminska, A. Suchocki, M. Juchniewicz, J. Sadowski, M. Sawicki, T. Dietl  
*The effect of high hydrostatic pressure on the paramagnetic-ferromagnetic phase transition in (Ga,Mn)As*
38. D.A. Ziolkowska, J.B. Jasinski, M. Michalska, K.P. Korona, L. Lipinska, M. Kaminska  
*Properties of novel graphene oxide/ lithium manganese oxide nanocomposites annealed in high vacuum*
39. V.V. Khomyak, I.I. Shteplyuk, N.M. Gavaleshko, G.V. Lashkarev  
*Growth and properties of the ZnS and ZnSO layers*
40. R. Rudniewski, J-G. Rousset, E. Janik, P. Kossacki, A. Golnik, M. Nawrocki, W. Pacuski  
*Type I CdSe and CdMgSe Quantum Wells*
41. Ya. Zhydachevskii, H. Teisseyre, M. Bockowski, A. Suchocki  
*Persistent Yellow Luminescence of Bulk GaN Doped with Beryllium*
42. M. Syperek, Ł. Dusanowski, J. Misiewicz, Y.S. Huang, C.H. Ho  
*Emission properties of near band-gap excitons and exciton kinetics in Niobium-doped Rhenium Disulphide (ReS<sub>2</sub>:Nb)*
43. J. Przybytek, A. Kwiatkowski, P. Juszyński, M. Gryglas-Borysiewicz, D. Wasik, M. Baj, J. Sadowski  
*Low - Frequency Resistance Fluctuations in (Ga,Mn)As*

44. L. Kilanski, M. Górńska, R. Szymczak, A. Podgórn, A. Avdonin, A. Reszka, B.J. Kowalski, V. Domukhovskii, W. Dobrowolski, V.E. Slynko, E.I. Slynko  
*Magnetic properties of Eu-Codoped  $\text{Sn}_{1-x}\text{Cr}_x\text{Te}$  crystals: the role of magnetic inhomogeneities*
45. C. Śliwa, T. Dietl  
*Orbital Magnetization and the Anomalous Hall Effect in  $(\text{Ga},\text{Mn})\text{As}$*
46. M. Inglot, V.K. Dugaev  
*Momentum and spin relaxation time in graphene with potential and spin-orbit impurities*
47. E. Karpierz, A. Drabińska, R. Bożek, P. Kaźmierczak, A. Wysmołek, M. Kamińska, W. Strupiński  
*ESR Spectroscopy of graphene with NaCl particles absorbed*
48. M. Tokarczyk, G. Kowalski, A.M. Witowski, R. Koziński, K. Librant, M. Aksienionek, L. Lipińska, P. Ciepielewski  
*Structural and Electronic Properties of Graphene Oxide and Reduced Graphene Oxide Papers*
49. J.A. Blaszczyk, Z. Obuchowicz, K. Grodecki  
*Investigation of graphene layer properties grown on different copper micro structures*
50. W. Szuskiewicz, K. Gas, R. Kuna, D. Klinger, R. Sobierajski, I. Yatsyna, E. Guzewicz, A. Kamińska, V. Hájková, T. Burian, L. Juha, M. Nagasono, M. Yabashi  
*Raman scattering studies of structural modifications of semiconductor surfaces induced by intense femtosecond X-ray free-electron laser pulses*
51. A. Jamróz, P. Kempisty, P. Strąk, S. Krukowski  
*Ab initio simulation of basic processes during growth of gallium nitride by MOVPE method*
52. M. Grzeszczyk, K. Gołasa, B. Piętka, A. Babiński, J. Szczytko  
*Confocal Microscope Studies of Molybdenum Disulfides Layer Thickness*
53. J.D. Fidelus, Y. Zhydashvili, W. Paszkowicz, K. Michałak, A. Suchocki  
*Luminescence properties of nanocrystalline  $\text{TiO}_2:\text{Nd},\text{Yb}$*
54. A. Pieniżek, B.S. Witkowski, A. Reszka, Ł. Wachnicki, S. Gierałtowska, M. Godlewski, B.J. Kowalski  
*Optical properties of ZnO nanorods grown by hydrothermal method as a function of solution pH level – a cathodoluminescence study*
55. P. Kaźmierczak, J. Binder, K. Boryczko, T. Ciuk, W. Strupiński, R. Stępniewski, A. Wysmołek  
*Graphene based flow sensors*
56. A. Wierzbicka, M. Sobanska, K. Klocek, G. Tchutchulashvili, K.P. Korona, M. Walerysiak, M. Heuer, Z.R. Zytewicz  
*Molecular beam epitaxial growth and properties of high quality GaN nanowires on multicrystalline solar grade Si wafers*
57. L. Szulakowska, P. Potasz, A. Wójs  
*Electronic properties studies of transition-metal dichalcogenides quantum dots*
58. A. Jamróz, M. Łopuszyński, J.A. Majewski  
*Ordering in boron and nitrogen functionalized graphene layers*

59. A. Skierkowski, M. Sadek, J.A. Majewski  
*Doping induced Rashba spin splitting in graphene and planar BN*
60. M. Sadek, J.A. Majewski  
*Ab initio studies of graphene and BN nano-ribbons*
61. M. Jaworski, P. Machnikowski  
*Modeling of phonon effects on a single quantum dot laser*
62. J. Sadowski, J.Z. Domagała, R. Mathieu, P. Dziawa, E. Łusakowska, P. Dłużewski  
*Mechanisms of strain relaxation and magnetic properties of (Ga,Mn)As layers grown on highly mismatched (In,Ga)As/GaAs(100) buffers*
63. M. Trzyna, O. Logush, N. Berchenko, J. Cebulski  
*The composition and Properties of Si-SiO<sub>2</sub> Structures with Zinc-Doped Oxide*

**TUESDAY POSTER SESSION (TuP1 – TuP65)**

1. K.A. Barantsev, A.N. Litvinov  
*Tunneling Control of Optical Properties of a Quantum Well from Adjacent Quantum Well by Coherent Population Trapping Effect*
2. W. Jaskolski, A. Ayuela  
*Coulomb edge effects in graphene nanoribbons*
3. B. Sawicki, E. Tomaszewicz, T. Groń, H. Duda, J. Gorauś  
*Thermoelectric power of  $AgY_{1-x}Gd_x(WO_4)_2$  tungstates*
4. S. Chusnutdinow, R. Pietruszka, W. Zaleszczyk, V.P. Makhniy, T. Wojtowicz, G. Karczewski  
*Reduction the optical losses in CdTe/ZnTe thin-film solar cells*
5. I. Shteplyuk, N. Podolskaia, G. Lashkarev  
*Phase-Field modeling of the spinodal decomposition in  $Zn_{1-x}Cd_xO$  films*
6. M.N. Solovan, V.V. Brus, P.D. Maryanchuk, M.M. Slyotov, A.M. Slyotov  
*Photoluminescence spectra of TiN thin films*
7. J. Grochowski, J. Kaczmarek, E. Kamińska, M.A. Borysiewicz, K. Pağowska, A. Piotrowska  
*Transport properties and trap states density in sputter-deposited amorphous In-Ga-Zn-O*
8. K. Wichrowska, J.Z. Domagała, T. Wosiński, S. Chusnutdinow, G. Karczewski  
*High-Resolution X-Ray Diffraction Studies on MBE-Grown p-ZnTe/n-CdTe Hetrojunctions for Solar Cell Applications*
9. S.. Krukowski, P. Strak, P. Kempisty, K. Sakowski  
*Microscopic models of polarization, polarization charges and dipole layers - application to nitride multi-quantum wells (MQWs)*
10. A. Vaitkevicius, D. Dobrovolskas, J. Mickevicius, Ö. Tuna, C. Giesen, M. Heuken, G. Tamulaitis  
*Study of Structural Relaxation of III-Nitride Epilayers by Confocal Spectroscopy*
11. C. Krammel, K. Wang, Y. Gu, L.Y. Zhang, Y.Y. Li, Y.X. Song, Q. Gong, S.M. Wang, P.M. Koenraad  
*Cross-Sectional Scanning Tunneling Microscopy of Bi Atoms in InP*
12. K. Kluczyk, W. Jacak  
*Surface plasmon resonance dependence on size in metallic nanospheres.*
13. M.V. Radchenko, G.V. Lashkarev, M.E. Bugaiova, L.A. Krushynskaya, Y.A. Stelmakh, W. Knoff, T. Story, S.V. Trushkin, D.A. Fedorchenko, T.S. Osmanov  
*Spin-dependent phenomena in ferromagnetic nanocomposites Co/Al<sub>2</sub>O<sub>3</sub> and effect of magnetic field on their growth and properties*
14. M. Nowak, B. Solecka, M. Jesionek  
*Photoelectromagnetic Investigations of Graphene*

15. P. Szperlich, M. Nowak, M. Jesionek, A. Starczewska, K. Mistewicz, J. Szala  
*Desorption of Gasses Induced by Ferroelectric Transition in SbSI Nanowires*
16. K. Mistewicz, M. Jesionek, M. Nowak, P. Szperlich, J. Szala, R. Paszkiewicz, R. Wrzalik  
*Fabrication of Nanodevices Using Ultrasonic Nanowelding*
17. A. Starczewska, P. Szperlich, I. Bednarczyk, J. Bodzenta, M. Nowak  
*Fabrication of SbSI Photonic Crystals*
18. K. Lament, P. Mazur, S. Zuber, A. Ciszewski  
*PTCDI-C8 adsorption on GaN surface*
19. J. Pers, M. Grodzicki, P. Mazur, S. Zuber, A. Ciszewski  
*Impact of annealing on Sb/GaN(0001) interface morphology*
20. E. Maciążek, J. Panek, M. Kubisztal, M. Karolus, T. Groń, H. Duda  
*Synthesis and magnetic properties of CuCr<sub>1.65</sub>Se<sub>4</sub> nanoparticles*
21. E.A. Shevchenko, A.A. Toropov, D.V. Nechaev, V.N. Jmerik, T.V. Shubina, S.V. Ivanov, M.A. Yagovkina, G. Pozina, J.P. Bergman, B. Monemar  
*AlGa<sub>N</sub> Quantum Well Heterostructures for Mid-Ultraviolet Emitters with Improved Room Temperature Quantum Efficiency*
22. T. Zakrzewski, P. Bogusławski  
*LDA+U calculations of Cr, Mn, Fe, and Co ions in GaN: impact of the U(N)*
23. E. Przeździecka, M. Stachowicz, D. Dobosz, R. Jakiela, D. Jarosz, K. Kopalko, M.A. Pietrzyk, J.M. Sajkowski, A. Kozanecki  
*Nitrogen doped ZnO: from p-type layer to a diode*
24. S.P. Łepkowski, W. Bardyszewski, D. Rodak  
*Polarization-Induced Band Inversion in In-Rich InGa<sub>N</sub>/Ga<sub>N</sub> Quantum Wells*
25. E. Zielony, E. Płaczek-Popko, A. Racino, Z. Gumienny, S. Chusnutdionow, G. Karczewski  
*Fundamental photoconversion properties of CdTe/ZnTe n-i-p photodiodes grown by molecular beam epitaxy*
26. A. Taube, M. Kozubal, J. Kaczmarek, A. Barcz, J. Dyczewski, E. Dynowska, J. Jasiński, M.A. Borysiewicz, P. Prystawko, E. Kamińska, A. Piotrowska  
*Characterization of Ion Implanted AlGa<sub>N</sub>/Ga<sub>N</sub> Epilayers for Planar Isolation of High Electron Mobility Transistors*
27. B.A. Orłowski, E. Guziewicz, B.J. Kowalski, K. Kopalko  
*High Energy Fano-type Resonances for Localized States in Alloys*
28. M. Galicka, K. Hummer, P. Kacman, R. Buczek  
*Band Structures of IV-VI Materials From Advanced DFT Calculations*
29. E. Wachowicz, T. Ossowski, A. Kiejna  
*Stepped 4H-SiC {0001} surfaces: a DFT study*

30. M. Marcinkiewicz, I. Grigelionis, M. Białek, P. Gutowski, A. Wójcik-Jedlińska, I. Sankowska, J. Kubacka-Traczyk, J. Muszalski, B. Piętka, J. Łusakowski  
*THz spectroscopy of GaInAs/GaAs quantum wells*
31. I. Bragar, Ł. Cywiński  
*Dynamics of entanglement of two electron spins interacting with nuclear spin baths*
32. A. Piekarska, P. Potasz, A. Wójs  
*Entanglement spectrum studies of systems with flat bands with nontrivial topology*
33. V. Kolkovsky, Z. Adamus, M. Wiater, G. Karczewski, A. Kozakov, L. Rokhinson, T. Wojtowicz  
*(Cd, Mn)Te – based quantum structures for electrical gate control of Lande g-factor of two-dimensional electron gas*
34. B. Jaworowski, P. Potasz, A. Wójs  
*Analysis of many-body effects on flat band with nontrivial topology*
35. M. Świdorski, M. Zieliński  
*Excitonic fine structure in nanowire quantum dot molecules*
36. D.R. Sahin, D.A. Ziolkowska, M. Michalska, L. Lipinska, K.P. Korona  
*Optical properties of lithium titanium oxide nanocrystals*
37. M. Gawelczyk, P. Machnikowski  
*Modeling of spin dynamics in optically excited electrically gated double quantum wells*
38. A. Hruban, A. Materna, S.G. Strzelecka, M. Piersa, E. Jurkiewicz-Wegner, W. Orłowski, W. Dalecki, R. Diduszko, A. Wołoś  
*Bi<sub>2</sub>Te<sub>2</sub>Se – promising material for topological insulators*
39. K. Karpierz, T. Kochman, M. Grynberg, K. Kucharski, J. Marczewski, P. Kopyt, W. Knap, J. Łusakowski  
*THz emission from silicon metal-oxide-semiconductor field-effect transistors*
40. I. Grigelionis, G. Karczewski, T. Wojtowicz, J. Łusakowski  
*Observation of FQHE states in THz spectroscopy of CdTe-based quantum wells*
41. L. Kilanski, M. Górská, E. Dynowska, A. Podgórní, A. Avdonin, W. Dobrowolski, I.V. Fedorchenko, S.F. Marenkin  
*Electrical and Magnetic Properties of Homogeneous Cd<sub>1-x</sub>Mn<sub>x</sub>GeAs<sub>2</sub> Compound*
42. M. Majewicz, D. Śnieżek, T. Wojciechowski, E. Baran, P. Nowicki, J. Wróbel, T. Wojtowicz  
*Low temperature processing of nanostructures based on II-VI semiconductors quantum wells*
43. V.Yu. Ivanov, J. Debus, D.R. Yakovlev, M. Godlewski  
*Spin relaxation and spin dependent energy transfer in II-Mn-VI DMS nanostructures*
44. A. Šiušys, J. Sadowski, T. Wojciechowski, S. Kret, K. Gas, T. Story, M. Sawicki  
*Magnetic properties of MBE grown (In,Ga)As-(Ga,Mn)As core-shell nanowires*



45. K. Dybko, M. Konczykowski, M. Szot, A. Szczerbakow, T. Story  
*Electron Irradiation Controlled Bulk Conductivity of  $Pb_{1-x}Sn_xSe$  Topological Crystalline Insulators*
46. F.K. Malinowski, T. Smoleński, M. Goryca, P. Wojnar, P. Kossacki  
*Compensation of exciton-ion exchange interaction in quantum dot by application of magnetic field*
47. G.V. Klimko, E.A. Evropeytsev, S.V. Gronin, I.V. Sedova, S.V. Sorokin, S.V. Ivanov  
*GaAs/AlGaAs quantum wells grown by MBE near the GaAs/Zn(Mn)Se heterovalent interface formed on  $c(4 \times 4)$ As GaAs surface*
48. P. Dziawa, B.J. Kowalski, A. Szczerbakow, C.M. Polley, T. Balasubramanian, K. Dybko, M. Szot, W. Knoff, L. Kowalczyk, R. Minikayev, A. Reszka, A. Pieniążek, T. Story  
*Topological crystalline insulator transition in  $Pb_{1-x,y}Sn_xMn_ySe$*
49. M. Deresz-Oszer, M. Goryca, A. Golnik, T. Wojtowicz, G. Karczewski, P. Kossacki  
*Study of spin dynamics and strain in  $(Cd,Mn)Te$  quantum well*
50. W. Bardyszewski, A.M. Witowski, E. Litwin-Staszewska, B. Łuczniak  
*Scattering Effects in Free Electron Gas in GaN*
51. E. Shylko, K. Żmuda, K. Pakuła, M. Zając, M. Iwińska, R. Stępniewski, A.M. Witowski  
*On Optical Parameters of Wide Band Gap Semiconductors*
52. M. Baranowski, M. Syperek, R. Kudrawiec, J. Misiewicz  
*Spin polarization dynamics in dilute nitride semiconductors*
53. J. Kobak, T. Smoleński, M. Papaj, J.G. Rousset, M. Nawrocki, A. Golnik, P. Kossacki, W. Pacuski  
*Magneto-optical study and theoretical description of anisotropy of exciton - cobalt system at CdTe quantum dots*
54. D.V. Myroniuk, G.V. Lashkarev, I.I. Shteplyuk, V.A. Skuratov, I.I. Timofeeva, A. Reszka, B.J. Kowalski  
*Swift  $Xe^{26+}$  ion irradiation effect on structure and luminescent properties of undoped and Cd-doped ZnO films*
55. K. Gwóźdź, R. Pietruszka, E. Zielony, B.S. Witkowski, Ł. Wachnicki, E. Popko, M. Godlewski, L. Jacak  
*Preliminary studies of test structures for Si/NRs/AZO photocells*
56. P. Kempisty, P. Strak, S. Krukowski  
*Density Functional Theory study on the incorporation of In, Mg and Si atoms on GaN(0001) surface in MOVPE growth conditions*
57. J. Jadczyk, L. Bryja, J. Kutrowska, A. Wojs, C.A. Nicoll, I. Ferrer, D.A. Ritchie  
*Magnetic field and temperature study of charge and degree of localization of excitonic complexes in GaAs/Ga<sub>1-x</sub>Al<sub>x</sub>As quantum wells*

58. R. Kuna, K. Gas, P. Baroni, S. Petit, R. Minikayev, A. Szczerbakow, W. Szuszkiewicz  
*Inelastic Neutron Scattering Studies of Acoustic-Optical Phonon Coupling in (Pb,Cd)Te Solid Solution*
59. P. Kaźmierczak, M. Zając, M. Iwańska, R. Stępniewski, A. Wymolek  
*Determination of the hole concentration in p-type GaN by Raman spectroscopy*
60. P.S. Perkowska, A. Reszka, K.P. Korona, A. Wymolek, M. Sobanska, K. Klosek, Z.R. Zytkeiwicz  
*Influence of the substrate on the photoluminescence of single gallium nitride nanowires*
61. M. Marchwiany, J.A. Majewski  
*Parallelization of DFT calculations within the real space grid approach*
62. N. Gonzalez Szwacki, J.A. Majewski  
*2D BxCyNz layers as predicted by the cluster-expansion approach*
63. P. Tredak, J.A. Majewski  
*Chemisorption of hydrocarbons at the SiC surfaces – from ab initio to classical molecular dynamics*
64. M. Bieniek, P. Potasz, A. Wójs  
*Electronic and transport properties of topological insulators*
65. A. Reszka, A. Pieniążek, K.P. Korona, M. Sobanska, K. Klosek, G. Tchutchulashvili, Z.R. Zytkeiwicz, B.J. Kowalski  
*Cathodoluminescence studies of individual GaN based nanowires*

#### THURSDAY POSTER SESSION (ThP1 – ThP65)

1. M.D. Gilić, N.Ž. Romčević, M.J. Romčević, R.S. Kostić, D.P. Stojanović, W.D. Dobrowolski, G. Kartzewski, R.R. Galazka  
*Optical Properties of CdTe/ZnTe Self – Assembled Quantum Dots*
2. M.R. Molas, A.A.L. Nicolet, B. Piętka, M. Potemski, A. Babiński  
*Effect of magnetic field on the excitation spectrum of single GaAlAs quantum dots*
3. T.I. Mykytyuk, V.Ya. Lytvynenko, L.A. Kosyachenko, X. Mathew, O.L. Maslyanchuk  
*Theoretical Description of Quantum Efficiency Spectra of Thin Film CuInSe<sub>2</sub> and Cu(In,Ga)Se<sub>2</sub> Solar cells*
4. K. Kolasiński, B. Szafran  
*Charged probe conductance mapping for quantum Hall interferometers*
5. B. Sawicki, E. Tomaszewicz, T. Groń, H. Duda, Z. Kukuła, J. Goraus  
*Electrical properties of AgY<sub>1-x</sub>Nd<sub>x</sub>(WO<sub>4</sub>)<sub>2</sub> solid solutions*
6. T.T. Kovalyuk, E.V. Maistruk, P.D. Maryanchuk  
*Effect of annealing on magnetic and kinetic properties of Hg<sub>1-x-y</sub>Cd<sub>x</sub>Dy<sub>y</sub>Se crystals*
7. I.G. Orletsky, V.M. Frasunyak  
*Electrical properties of ZnO:Mn/n-GaP structures*
8. J. Łuczak, B.R. Bułka  
*Read-out of Dynamics of Qubit Built on Three Quantum Dots*
9. P. Kopyciński, S. Prucnal, K. Pyszniak, W. Skorupa, J. Żuk  
*Low-temperature Photoluminescence of InAs Nanodots Synthesized in SiO<sub>2</sub>/Si by Ion Implantation and Flash Lamp Annealing*
10. L.I. Ovsiannikova, G.V. Lashkarev, V.V. Kartuzov, I. Shtepliuk  
*The investigation of the cadmium effect on properties of ZnCdO alloys using Zn<sub>36-x</sub>Cd<sub>x</sub>O<sub>36</sub> clusters*
11. B. Toroń, M. Nowak, M. Kępińska, P. Szperlich  
*Mobility of Ferroelectric Domains in Antimony Sulfoiodide*
12. C. Jasiukiewicz, S. Stagraczyński, D. Lehmann, V. Dugaev, J. Berakdar  
*Influence of acoustic phonons on the magnetic anisotropy in GaMnAs magnetic semiconductors*
13. S.V. Gronin, S.V. Sorokin, D.R. Kazanov, I.V. Sedova, G.V. Klimko, S.V. Ivanov  
*CdSe/ZnCdSe quantum dot heterostructures for yellow spectral range grown on GaAs substrates by molecular beam epitaxy*
14. K. Król, P. Konarski, M. Miśnik, M. Saohacki, J. Szmidt  
*The Effect of Phosphorus Incorporation into SiO<sub>2</sub>/4H-SiC (0001) Interface on Electro-Physical Properties of MOS structure*

15. K. Mistewicz, M. Nowak, P. Szperlich, M. Jesionek, R. Paszkiewicz  
*SbSI Single Nanowires as Humidity Sensors*
16. W. Stefanowicz, R. Adhikari, T. Andrearczyk, B. Faina, M. Sawicki, J.A. Majewski, T. Dietl, A. Bonanni  
*Rashba effect in wurtzite n-GaN:Si*
17. P.A. Drózdź, M. Sarzyński, K.P. Korona, T. Suski, D. Wasik  
*Micro-photoluminescence of InGaN/GaN quantum wells grown on miscut c-plane substrates*
18. D. Snigurenko, T.A. Krajewski, R. Schifano, K. Kopalko, G. Luka, R. Jakiela, E. Guziewicz  
*p-type Zinc Oxide Films Doped with Nitrogen and Aluminum*
19. K. Levchenko, T. Andrearczyk, J.Z. Domagała, T. Wosiński, T. Figielski, J. Sadowski  
*Magnetic and Magneto-Transport Characterization of (Ga,Mn)(Bi,As) Epitaxial Layers*
20. D. Sztenkiel, T. Devillers, G. Capuzzo, K. Miwa, S. Ono, D. Chiba, A. Bonanni, T. Dietl, M. Sawicki  
*Ion gel metal-insulator-semiconductor capacitors based on (Ga,Mn)N*
21. M.R. Molas, A.A.L. Nicolet, M. Potemski, A. Babiński  
*Nonlinear excitonic Zeeman spin splitting in a single quantum dot*
22. B.K. Kuśmierz, Y.H. Wu, A. Wójs  
*Mathematical structure of bosonic and fermionic Jack states and their application in fractional quantum Hall effect*
23. M.J. Grzybowski, A. Golnik, W. Pacuski  
*Magnetic field induced splitting of intraionic transition of  $Co^{2+}$  in ZnSe*
24. P. Mrowiński, M. Zieliński, A. Musiał, J. Misiewicz, A. Somers, J.P. Reithmaier, S. Höfling, M. Kamp, G. Sęk  
*Experimental and Theoretical Determination of Exciton Fine Structure Splitting and Excitonic Complexes Binding Energy in InP-based Quantum Dashes*
25. M. Papaj, J. Kobak, A. Golnik, P. Kossacki, W. Pacuski  
*Determination of crystal field splitting of single cobalt ion in a CdTe QD*
26. M. Sznajder, M. Grabowski, J.A. Majewski  
*On charging effects at SiC/nitride interfaces – ab initio studies*
27. T. Zakrzewski, O. Volnianska, P. Bogusławski  
*Pseudo-Jahn-Teller effect and negative-Ueff feature induced by the +U term in LDA+U: V:Ga, Fe, and Mn in GaN*
28. T. Szczepański, V. Dugaev, J. Barnaś, F. Aliev  
*Full Counting Statistics and Superpoissonian Shot Noise in a Magnetic Tunneling Structure*
29. S.S. Shenouda, G.A. Langer, G.L. Katona, D.L. Beke  
*Diffusion and Solid State Reactions between Nanocrystalline  $Ni_2Si$  and Amorphous Si Thin Films*

30. B. Piętka, M. Król, R. Mirek, K. Lekenta, A. Leniart, M. Marcinkiewicz, P. Gutowski, A. Wójcik-Jedlińska, I. Sankowska, J. Kubacka-Traczyk, J. Muszalski, J. Szczytko, J. Łusakowski  
*Light-matter coupling in semiconductor microcavities: excitons, exciton-polaritons and two-dimensional electron gas.*
31. B. Szukiewicz, K.I. Wysokiński  
*Thermoelectric transport through the double quantum dot in the sequential tunneling regime.*
32. M.A. Pietrzyk, M. Stachowicz, D. Jarosz, E. Przedziecka, A. Reszka, J.M. Sajkowski, A. Kozanecki  
*Investigations of ZnO/ZnMgO multiple quantum wells in ZnMgO nanocolumns grown on Si (111) by MBE*
33. E. Wach, B. Szafran  
*Imaging of liquid - solid transition in two-dimensional quantum dots by scanning probe microscopy*
34. Ł. Dusanowski, A. Musiał, J. Andrzejewski, A. Maryński, P. Mrowiński, P. Machnikowski, G. Sęk, J. Misiewicz, A. Somers, H.P. Reithmaier, S. Höfling, M. Kamp  
*Role of acoustic phonons in the emission from strongly in-plane anisotropic nanostructures*
35. V.V. Khomyak, V.V. Brus, M.I. Ilashchuk, I.I. Shteplyuk, G.V. Lashkarev  
*Fabrication and properties of the photosensitive anisotype n-Cd<sub>1-x</sub>Zn<sub>x</sub>O/p-CdTe heterojunctions*
36. M. Pieczarka, P. Podemski, J. Misiewicz, A. Löffler, J.P. Reithmaier, S. Höfling, M. Kamp, S. Reitzenstein, G. Sęk  
*Emission studies of large and elongated InGaAs/GaAs quantum dots with the excitation energy control*
37. J. Papierska, E. Chikoidze, M. Boshta, H. J. von Bardeleben, Y. Dumont, M. H. Sayed, W. Pacuski, M. Nawrocki, J. Suffczyński  
*Giant Zeeman effect in polycrystalline zinc oxide with Fe<sup>3+</sup> ions*
38. W. Zaleszczyk, V. Kolkovsky, M. Wiater, K. Fronc, S. Chusnutdinow, M. Aleszkiewicz, M. Szymura, Ł. Kłopotowski, G. Karczewski, T. Wojtowicz  
*Cathodoluminescence studies of individual CdSe/ZnSe quantum dots*
39. M. Syperek, Ł. Dusanowski, A. Maryński, J. Andrzejewski, G. Sęk, J. Misiewicz, T.W. Schlereth, C. Schneider, S. Höfling, M. Kamp, A. Forchel  
*Carrier dynamics in (Al,Ga,In)As/(Al,Ga)As quantum dots: the issue of quantum confinement and lattice temperature*
40. A. Mielnik-Pyszcorski, K. Gawarecki, P. Machnikowski  
*Phonon-assisted Tunneling of Electrons in a Quantum Well-Quantum Dot Injection Structure*
41. I. Janus-Zygmunt, B. Kędzierska, A. Gorczyca-Goraj, M. Kurpas, M.M. Maśka, E. Zipper  
*Application of the dot-ring nanostructure to control electrical transport in the Coulomb blockade regime*

42. D. Pacynko, E. Płaczek-Popko, Z. Gumienny, E. Zielony, W. Ryba-Romanowski, R. Lisiecki  
*Spectroscopic study of femtosecond laser irradiated  $\text{GeO}_2\text{-PbO-PbF}_2$  glass doped with  $\text{Pr}^{3+}$  and  $\text{Yb}^{3+}$*
43. S.P. Łepkowski, I. Gorczyca  
*Absence of Optical Polarization Switching in M-Plane InGaN/GaN and AlGaIn/AlN Quantum Wells*
44. A. Łusakowski, P. Bogusławski  
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