

INSTYTUT FIZYKI POLSKIEJ AKADEMII NAUK



Sesja sprawozdawcza z działalności naukowej w roku 2018

14 lutego 2019

początek o godzinie 9:50



al. Lotników 32/46, 02-668 Warszawa
Aula im. Leonarda Sosnowskiego



SESJA PLAKATOWA

POSTER SESSION

16:00 - 17.30

ON 1

1. P. Skupiński, K. Graszka, A. Avdonin, A. Reszka, A. Wołoś
Bi_{2-x}Sb_xTe_{3-y}Se_y as a matrix for magnetic ions – composition dependent properties
2. A. Wardak, M. Witkowska-Baran, D. Kochanowska, M. Szot, A. Mycielski
Pockels effect investigations in (Cd,Mn)Te, (Cd,Mg)Te and (Cd,Mn)(Te,Se) crystals
3. K. Karpińska, K. Połczyńska, L. Kowalczyk, S. Chusnutdinow, G. Karczewski, T. Story, M. Szot
Simulation of photonic behaviour of CdTe/PbTe periodic structures
4. W. Wołkanowicz, P. Dziawa, M. Zięba, B. Taliashvili, A. Sulich, J. Domagała, R. Minikayev, E. Łusakowska, K. Dybko, A. Reszka, M. Wiater, T. Wojtowicz, T. Story
Epitaxial growth, structural and electric properties of SnTe/CdTe and Pb_{1-x}Sn_xTe/CdTe topological layers



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5. M. Zięba, A. Grochot, W. Wołkanowicz, K. Dybko, A. Reszka, R. Minikayev, E. Łusakowska, W. Knoff, H. Przybylińska, M. Sawicki, T. Story
Ferromagnetic properties of topological crystalline insulator $\text{Sn}_{1-x}\text{Mn}_x\text{Te}$ layers on BaF_2 and GaAs substrates

 6. L. Kilański, M. Górka, M. Arciszewska, A. Podgórn, R. Minikayev, B. J. Kowalski, A. Reszka, E.I. Slynko, V.E. Slynko
Magnetic properties of graphene decorated with $\alpha\text{-Fe}_2\text{O}_3$ nanoparticles

 7. L. Kilański, A. Jędrzejewska, D. Sibera, R. Jędrzejewski
Antiferromagnetic EuTe clusters in $\text{Ge}_{1-x}\text{Eu}_x\text{Te}$ semiconductors

 8. T. Andrearczyk, K. Levchenko, J. Sadowski, A. Avdonin, J. Wróbel, T. Figielski, T. Wosiński
Enhanced strength of spin-orbit coupling as a result of bismuth incorporation into $(\text{Ga},\text{Mn})\text{As}$ dilute ferromagnetic semiconductor

 9. K. Levchenko, P. Dłużewski, A. Kaleta, R. Kuna, J. Sadowski, J. Z. Domagała, M. Trzyna, R. Jakieta, T. Andrearczyk, T. Figielski, T. Wosiński
Structural characterization of the $(\text{Ga},\text{Mn})(\text{Bi},\text{As})$ dilute magnetic semiconductor epitaxial layers



ON 2

1. A. Ciamei, J. Szczepkowski, A. Bayerle, V. Barbé, L. Reichsöllner, S.M. Tzanova, C.-C. Chen, B. Pasquiou, A. Grochola, P. Kowalczyk, W. Jastrzębski, F. Schreck
The $RbSr^2\Sigma^+$ ground state investigated via spectroscopy of hot and ultracold molecules
2. I. Zaytseva, K. M. Kosyl, D. J. Gawryluk and Marta Z. Cieplak
Structural and magnetotransport properties of the Ni-doped $FeTe_{0.65}Se_{0.35}$ crystals
3. P. Gierłowski, B. C. Camargo, M. Jaworski, D. Gawryluk, K. Kosyl, W. Paszkowicz
Microwave characterization of $Fe_{1-y}Co_yTe_{0.65}Se_{0.35}$ crystals
4. M. Kolwas, D. Jakubczyk, Tho Do Duc, J. Archer
Evaporation of free microdroplets of mixtures of liquids with different volatilities
5. M. Woźniak, I. Kamińska, Y. Shopa, D. Jakubczyk, K. Fronc, T. Wojciechowski, G. Derkachov, K. Kolwas, M. Kolwas
Probing the surface and the internal structure of an evaporating droplet with luminescent nanoparticles



6. V. Yunko , M. Białous, Sz. Bauch, M. Ławniczak and L. Sirko
Experimental and numerical study of spectral properties of three-dimensional chaotic microwave cavities: The case of missing levels

7. M. Głódź, S. Magnier, A. Huzandrov, L. Petrov, I. Sydoryk, J. Szonert, J. Klavins, K. Kowalski
Excitation energy transfer $K(7S) \rightarrow K(5F)$ in thermal collisions, revisited

8. P. Gawryś, E. Karpiuk, J. Karpiuk
Molecular structures for white fluorescence generation: synthesis and dual fluorescence of Crystal Violet Lactone analogues

ON 3

1. A. Lynnyk, A. Krzton-Maziopa, E. Pesko, R. Puźniak
Superconducting properties of iron selenides intercalated with organic molecules

2. Ciechan, P. Bogusławski
Co dopant in ZnO: ionization vs internal optical transitions

3. P. Iwanowski, M. Głowacki, A. Hruban, J. Fink-Finowicki, R. Diduszko, M. Czech, W. Adamczuk, B. Kowalski, A. Wiśniewski, M. Berkowski
Growth and characterization of Weyl semimetals single crystals and complex oxides single crystals for optoelectronics



4. E. Mosiniewicz-Szablewska, M. A. Soler, P. C. Morais
Layer-by-layer assembled biopolymer/iron oxide nanofilms for transcutaneous drug delivery

5. P. Nawrocki, A. Petruczik, A. Wawro and M. Wojcik
Epitaxial $Co_{1-x}Mo_x$ thin film alloys studied by ^{59}Co NMR

6. O. Chumak, A. Pacewicz, A. Nabałek, B. Salski, T. Yamamoto, T. Seki, A. Lynnyk, K. Takanashi, L. T. Baczewski, H. Szymczak
Magnetoelastic and damping properties of $Co_2Fe_xMn_{1-x}Si$ Heusler Alloys thin films

7. P. Aleshkevych, K. Dybko, P. Dłuzewski, E. Dynowska, L. Gładczuk, K. Lasek, P. Przysłupski
Magnetic and magnetotransport properties of epitaxial $La_{0.7}Sr_{0.3}MnO_3/SrIrO_3/La_{0.7}Sr_{0.3}MnO_3$ spin valves



8. Sukanta Kumar Jena, M. Jakubowski, E. Milińska, A. Pietruczik, R. Minikayev, W. Paszkowicz, S. Lewińska, A. Lynnyk, R. Puźniak, A. Wawro, Z. Kurant, Sveklo Iosif, A. Maziewski
Investigation of domain structure of heavy metal/ferromagnetic heterostructures with large spin-orbit coupling

ON 4

1. K. Koronski, A. Kaminska, K. P. Korona, P. Strak, S. Krukowski and E. Monroy
Comparison of optical properties of GaN/AlGaIn quantum structures grown along polar (c-plane) and non-polar (m-plane) crystallographic directions
2. H. Przybylinska, V. Volobuev, G. Springholz, A. Grochot, W. Jantsch, G. Bauer, A. Ney
Controlling ferroelectric distortion with magnetic field in the multiferroic GeMnTe semiconductor
3. Monika Ożga, Bartłomiej S. Witkowski, Rafał Witkowski, Marek Godlewski
Nucleation of the zinc oxide nanorods growth by hydrothermal method
4. J. Rosowska, J. Kaszewski, B. Witkowski, Ł. Wachnicki, M. Godlewski
The effect of ytterbium content on properties of ZrO₂:Pr, Yb nanoparticles prepared by microwave hydrothermal method



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5. A. Pieniżek, H. Teisseyre, D. Jarosz, B. S. Witkowski, A. Reszka, M. Godlewski, B. J. Kowalski
ZnO/Zn_{1-x}Mg_xO multiple quantum wells on vertical ZnO microrods - cathodoluminescence studies

 6. B. A. Orlowski, M. Galicka, K. Gwozdz, E. Placzek-Popko, S. Chusnutdinow, M. A. Pietrzyk, E. Guziewicz, B.J. Kowalski
Open circuit voltage of photojunction with nano defects

 7. Marta Sobanska, Núria Garro, Kamil Klosek, Ana Cros and Zbigniew R. Zytkeiwicz
Polarity of self-induced GaN nanowires on Si(111) studied by Kelvin probe microscopy: influence of Si substrate preparation

 8. M. Sobanska, A. Wierzbicka, G. Tchutchulashvili, K. Klosek, J. Borysiuk, A. Reszka, Z. R. Zytkeiwicz
Growth mode, arrangement and polarity of GaN nanowires grown by PAMBE on Si(001) substrates: importance of the Si_xN interlayer

 9. E. Przedziecka, S. Kryvyi, A. Wierzbicka, D. Jarosz, M. Stachowicz, W. Lisowski, A. Kozanecki
Comparison of polar and nonpolar ZnMgO:Sb MBE layers grown on a-, c- and r-Al₂O₃ and m-ZnO in the same growth conditions



10. M. Stachowicz, M. A. Pietrzyk, P. Dłuzewski, E. Alves, A. Kozanecki
Backscattering analysis of ZnO/MgO superlattices grown by PA-MBE

ON 5

1. Jacek Dobrzyniecki, Tomasz Sowiński
Dynamics of a few interacting bosons escaping from an open well
2. Adolfo B. Poma, Marek Cieplak, Panagiotis E. Theodorakis
Combining the MARTINI and structure-based coarse-grained approaches for the molecular dynamics studies of conformational transitions in proteins
3. Damian Kwiatkowski, Łukasz Cywiński
Towards resolving spatial structure of nanoscale environment using spin qubits subjected to dynamical decoupling
4. Joanna Pietraszewicz, Emilia Witkowska, Piotr Deuar
Continuum of classical-field ensembles from canonical to grand canonical and the onset of their equivalence



5. Maksim Kouza, Nguyen Truong Co, Mai Suan Li, Sebastian Kmiecik, Andrzej Kolinski, Andrzej Kloczkowski, Irina Alexandra Buhimschi
Kinetics and mechanical stability of the fibril state control fibril formation time of polypeptide chains: A computational study

6. Pham Dinh Quoc Huy, Mai Suan Li, Giovanni La Penna
Copper binding induces polymorphism in amyloid-beta peptide: results of computational models

7. Paweł Krupa, Quoc Huy Pham Dinh, Linh Nguyen Hoang, Mai Suan Li
Computational studies of monomeric and oligomeric forms of amyloid beta

8. Rafał Rechciński, Ryszard Buczko
Topological states on uneven PbSnSe surface

ON 6

1. A. Kazakov, V. Volobuev, Z. Adamus, M. Aleszkiewicz, T. Wojciechowski, B. Turowski, T. Wojtowicz, T. Dietl
Growth and magnetotransport properties of (111) $Pb_{1-x}Sn_xSe$ topological crystalline insulator epilayers



2. R. Rudniewski, W. Zaleszczyk, M. Wiater, Z. Adamus, T. Wojciechowski, T. Wojtowicz

Towards high mobility 2DEG in CdTe quantum wells doped with Indium

3. M. J. Grzybowski, P. Wadley, K. W. Edmonds, K. Dybko, M. Majewicz, R. Campion, V. Novak, T. Jungwirth, T. Dietl, M. Sawicki

Achieving electric field influence on thin films of antiferromagnetic CuMnAs

SL 1

1. K. Lawniczak-Jablonska, K. Kosiel, P. Kuzmiuk, P. Rejmakand, W. Klysubun

Comprehensive characterization of the amorphous Ta_xO_y thin films deposited on Si and glass

2. Diana Kalinowska, Marcin T. Klepka, Anna Wolska, Cristina A. Barboza, Elżbieta Hejchman

Determination of molecular structure of Schiff base complexes with Cu ions

3. S. Kret, S. Kryvyi, D. Janaszko, A. Kaleta, M. Bilska, B. Kurowska, J. Płachta, P. Wojnar

Strain mapping of axial and core/shell (Zn,Cd)Te nanowires containing structural defects by geometric phase analysis and scanning electron diffraction



4. P. Rejmak, E. Brocławik, J. Datka

Computational studies on broensted acidic sites in mazzite type zeolites

5. R. Sobierajski, P. Zalden, K. Sokolowski-Tinten, R. Minikayev, M. Chaika, M. Chojnacki, P. Dłuzewski, K. Fronc, I. Jacyna, M.T. Klepka, D. Klinger, O. Magnussen, J. Warias, K. Georgarakis, A.L. Greer, U. Ruett, K. Perumal, B. Murphy, J. Antonowicz

Crystallization of Pd-Si thin film metallic glass via ultrafast pulsed laser annealing

6. A. Budzianowski, D. Rusinek, I. Fijał-Kirejczyk, K. Stefańska-Skrobas. J. Żołądek-Nowak, J. Żołądek, A. Hoser, D. Paliwoda, A. Katrusiak, J. Jankowska-Kisielińska, and J. Milczarek

Neutron diffraction patterns of AuCN from the BER-II E6 diffractometer before its transfer to MARIA in Świerk

7. A.Sulich, J. Z. Domagała, W. Paszkowicz, M. Berkowski, A. Shekhovtsov and M. Kosmyna

High-resolution XRD study on selected Czochralski-grown rare-earth containing borates and gallates

8. W. Paszkowicz, A. Shekhovtsov, M. Kosmyna, A. Behrooz and A. Fitch

High-resolution powder diffraction study of $\text{Ca}_9\text{La}(\text{VO}_4)_7$ crystals



9. H.S. Rahimi Mosafer, W. Paszkowicz, A. Shekhovtsov and M. Kosmyna
Structure refinement for $Ca_8Pb_{2.5}(VO_4)_7$: A powder diffraction study

SL 2

1. G. Grabecki, K. Grasza, W. Paszkowicz, M. Szot, M. Wołczyrz,
S. Chusnutdinow, P. Skupiński, A. Avdonin, I. Yahniuk, E. Łusakowska,
R. Jakieła, A. Barcz, A. Reszka, M. Majewicz, K. Dybko, A. Łusakowski and
T. Dietl
Model for anomalous electron transport in $(Cd_{0.38}Zn_{0.62})_3As_2$
2. D. Śnieżek, K. Dybko, P. Dziawa, W. Wołkanowicz, M. Szot, R. Rudniewski,
J. Wróbel, M. Aleszkiewicz, T. Wojtowicz, T. Story, T. Dietl, J. Wróbel
*Weak anti-localization and universal conductance fluctuations in mesoscopic
sample patterned from SnTe 3D topological crystalline insulator topologicznego
SnTe*
3. M. J. Grzybowski, P. Wadley, K. W. Edmonds, K. Dybko, M. Majewicz,
R. Campion, B. L. Gallagher, V. Nowak, T. Jungwirth, T. Dietl, M. Sawicki
Achieving electric field influence on thin films of antiferromagnetic CuMnAs
4. K. Kalbarczyk, K. Dybko, K. Gas, M. Foltyn, M. Majewicz, P. Nowicki,
E. Łusakowska, D. Hommel and M. Sawicki
Studies of electrical transport in vertical devices based on heteroepitaxial GaN



5. G.P. Mazur, K. Dybko, A. Szczerbakow, M. Zgirski, E. Łusakowska, S. Kret,
J. Korczak, T. Story, M. Sawicki, T. Dietl
Majorana-like excitations in a ferromagnetic topological crystalline insulator

SL 3

1. O. Volnianska, P. Bogusławski
Green luminescence and calculated optical properties of Cu ions in ZnO
2. Ł. Kłopotowski, J. Mikulski, M. Szymura, T. Kazimierczuk, J. Kossut
Spin relaxation in copper-doped colloidal CdSe nanocrystals
3. S. Chusnutdinow, M. Szot, S. Schreyeck, I.V. Kucherenko, A.V. Muratov, V.A.
Yakovlev, W. Zaleszczyk, T. Wojtowicz, G. Karczewski
Band gap engineering of PbSe by doping with Cd

SL 4

1. I. Kocmik , K. Piecyk, M. Rudzinska, A. Niedzwiecka, E. Darzynkiewicz , R. Grzela,
M. Jankowska-Anyszka
Modified ARCA analogs providing enhanced translational properties of capped mRNAs



2. I. Kamińska, D. Elbaum, B. Sikora, P. Kowalik, J. Mikulski, Z. Felcyn, P. Samol, T. Wojciechowski, R. Minikayev, W. Paszkowicz, W. Zaleszczyk, M. Szewczyk, A. Konopka, G. Gruzeł, M. Pawlyta, M. Donten, K. Cizak, K. Zajdel, M. Frontczak-Baniewicz, P. Stępień, M. Łapiński, G. Wilczyński, K. Fronc
The molybdate/ $Gd_2O_3:Er^{3+}$, Yb^{3+} core-shell nanoparticles – synthesis, properties, and biomedical applications

3. Anna Borodziuk, Ł. Kłopotowski, D. Elbaum, J. Mikulski, P. Kowalik, K. Fronc, I. Kamińska, R. Minikayev, T. Wojciechowski, A. Sienkiewicz, M. Łapinski, M. Szewczyk, P. Stępień, B. Sikora
Modified upconverting Na_4F_4 nanoparticles for photodynamic therapy

4. Lukasz Mioduszewski, Marek Cieplak
Disordered peptide chains in an α -C-based coarse-grained model

5. Bartosz Rozycki, Marek Cieplak
Intrinsically disordered regions in carbohydrate-active proteins: small angle X-ray scattering and coarse-grained simulations