Poster Session 23/07/2018 18:00

PM01
Strain effects on the electronic and thermoelectric properties of Bi2Te3: A first principal study
Hajji, Mohammed.
Faculty of Sciences, Mohammed V University in Rabat, Morocco.

PM02
Nonlinear valley Hall transport phenomena in 2D transition metal dichalcogenide materials
Kovalev, Vadim [1]; Entin, Matvey [1]; Tse, Wang-Kong [2]; Fistul, Mikhail [3]; Savenko, Ivan [4].
[1] Institute of semiconductor physics; [2] Department of Physics and Astronomy, and Center for Materials for Information Technology, The University of Alabama; [3] Russian Quantum Center, National University of Science and Technology "MISIS; [4] Center for Theoretical Physics of Complex Systems, Institute for Basic Science.

PM03
Magnetoresistance oscillations in irradiated 2D electron systems with strong Rashba coupling.
Inarrea, Jesus.
Universidad Carlos III de Madrid.

PM04
Effects of Fe Substitution on Structural, Electrical and Magnetical Properties of Erbium Ortho-Chromite Nano Polycrystalline Material
Jada, Shanker [1]; Medirddy, Buchi Suresh [2]; Padmanapan, Sravanan [3]; Devarsetty, Suresh Babu [4].

[1] OSMANIA UNIVERSITY, HYDERABD, INDIA; [2] International Advanced Research Centre for powder metallurgy and New Materials Hyderabad, Telangana, India; [3] Defence Metallurgical Research Laboratory, Hyderabad, Telangana, India; [4] OSMANIA UNIVERSITY HYDERABAD INDIA.

PM05
Ubiquitous interlayer coupling in two-dimensional materials and its effects on materials properties
Zhang, Lijun. Jilin University.

PM06
Self-gating diode based on MoS_2/h-BN heterostructure
Kim, Gil-Ho.
Sungkyunkwan University.

PM07
Renormalised quasiparticles as vacancions at the MgZnO/ZnO heteroninterface
Bisti, Veronika.
Institute of Solid State Physics RAS.

PM08

Giant quantum Hall plateau in graphene coupled to an InSe van derWaals crystal

Kudrynskyi, Zakhar [1]; Bhuiyan, Mahabub [1]; Makarovsky, Oleg [1]; Greener, Jake [1]; Vdovin, Evgenii [2]; Kovalyuk, Zakhar [3]; Cao, Yang [4]; Mishchenko, Artem [5]; Novoselov, Konstantin [5]; Beton, Peter [1]; Eaves, Laurence [1]; Patane, Amalia [1].

[1] School of Physics & Astronomy, The University of Nottingham; [2] Institute of Microelectronics Technology & High Purity Materials, RAS; [3] Institute for Problems of Materials Science, The National Academy of Sciences of Ukraine, Chernivtsi Branch; [4] National Graphene Institute, University of Manchester; [5] School of Physics and Astronomy, University of Manchester.

PM09

Multilayer device from vertical graphene/h-BN heterostructures

Hernández, Luis.

University of Havana.

PM10

Abstract Form, HPSP18&WHS2

Influence of polar pressure transmission medium on the pressure coefficient of excitonic interband transitions in monolayer WSe_2

Sun, Baoquan.

State Key Laboratory for Superlattices and Microstructures, Institute of semiconductors, Chinese Academy of Sciences.

PM11

New exciton resonances in small-twist angle $MoSe_2/WSe_2$ heterostructures

Moody, Galan [1]; Tran, Kha [2]; Hao, Kai [2]; Autry, Travis [1]; Li, Xiaoqin [2]; Silverman, Kevin [1].

[1] NIST; [2] University of Texas.

PM12

Solitons in a quasi-one dimensional chain with a flat band

Bercioux, Dario [1]; Dutta, Omjoti [1]; Rico, Enrique [2].

[1] DIPC; [2] UPV/EHU.

PM13

Influence of electron interference effects on reflection of electron waves from potential barrier in 2D semiconductor nanostructures

Petrov, Victor; Nikitin, Andrey.

Institute of Radio Engineering and Electronics, Russian Academy of Sciences.

PM14

Characterization and electrical properties of boron-doped reduced graphene oxide for solar cell application

Ryu, Beo Deul; Han, Min; Ko, Kang Bok; Cho, Chang Hee; Hong, Chang-Hee.

Semiconductor Physics Research Center/Chonbuk National University.

PM15
Modulation of Size and Components for Solar Cells Consisting of Wurtzite $In_xGa_{1-x}N$/GaN Quantum Wells
Weng, Zhi; Li, Xiaoping; Dong, Shanshan; Ren, Shuliang; Ban, Shiliang.
Inner Mongolia University.

PM16
Bound states in the continuum poisoned by Majorana fermions
Orellana, Pedro; Zambrano, David; Ramos, Juan Pablo.
Universidad Técnica Federico Santa Maria.

PM17
Tuning the conductance quantization in a high spin-orbit coupling material
Trottmann, Michaela; Wieand, Martin; Himmler, Wolfgang; Schuh, Dieter; Bougeard, Dominique.
Institut fuer Experimentelle und Angewandte Physik, Universitaet Regensburg.

PM18
Optical Tuning of the Charge Carrier Type in InAs/GaSb Quantum Wells
Hartmann, Fabian; Knebl, Georg; Pfeffer, Pierre; Kamp, Martin; Worschech, Lukas; Höfling, Sven.
Technische Physik, Physikalisches Institut, Universität Würzburg.

PM19
High-Pass Frequency Filter on Resonant Photon Drag Effect in Exciton Condensates
Kovalev, Vadim [1]; Boev, Maxim [2]; Savenko, Ivan [3].
[1] Department of Applied and Theoretical Physics, Novosibirsk State Technical University, Novosibirsk 630073, Russia; [2] A.V. Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Sciences, Novosibirsk 630090, Russia; [3] Institute for Basic Science (IBS), Center for Theoretical Physics of Complex Systems (PCS).

PM20
Solution-processed graphene quantum dots on reduced graphene oxide films as transparent and flexible UV photoconductors
Ko, Kang Bok; Thanh, Do Trong; Ryu, Beo Deul; Han, Min; Cuong, Tran Viet; Hong, Chang-Hee.
School of Semiconductor and Chemical Engineering, Semiconductor Physics Research Center, Chonbuk National University.

PM21
Exceptional points in optically anisotropic planar microcavities
Steffen, Richter [1]; Zúñiga-Pérez, Jesús [2]; Deparis, Christiane [2]; Trefflich, Lukas [3]; Zirnstein, Heinrich-Gregor [4]; Sturm, Chris [3]; Rosenow, Bernd [4]; Grundmann, Marius [3]; Schmidt-Grund, Rüdiger [3].
[1] ELI Beamlines; [2] CRHEA-CNRS; [3] Felix Bloch Institute for Solid State Physics, Leipzig University; [4] Institute for Theoretical Physics, Leipzig University.

PM22
AC-driven dimer chain with long-range hoppings: topology, disorder, and quantum transport
Pérez-González, Beatriz; Bello, Miguel; Gómez-León, Álvaro; Platero, Gloria.
Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC).

PM23
Study on temperature dependence of dielectric function of monolayer MoS_2 based on the parametric model
Le, Van Long [1]; Kim, Tae Jung [1]; Park, Han Gyeol [1]; Le, Chinh Tam [2]; Kim, Yong Soo [2]; Nguyen, Hoang Tung [1]; Ji, Jeoung Min [1]; Nguyen, Xuan Au [1]; Kim, Young Dong [1].
[1] Department of Physics, Kyung Hee University; [2] Department of Physics and Energy Harvest Storage Research Center (EHSRC), University of Ulsan.

PM24
Van der Waals heterostructures as synthetic semiconductors
Ponomarev, Evgeniy [1]; Ubrig, Nicolas [1]; Gutiérrez-Lezama, Ignacio [1]; Berger, Helmuth [2]; Morpurgo, Alberto [1].
[1] University of Geneva; [2] EPFL.

PM25
Electronic mobility in 2D quantum dot superlattices
Skibinsky Gitlin, Erik Sebastian [1]; Gomez Campos, Francisco Manuel [1]; Rodríguez Bolívar, Salvador [1]; Califano, Marco [2]; Carceller Beltran, Juan Enrique [1].
[1] UGR; [2] University of Leeds.

PM27
Advances in electron transport in InSb/$Al_xIn_{1-x}Sb$ quantum wells: magnetoresistance measurements and transport lifetime modelling
Mcindo, Christopher [1]; Hanks, Laura [2]; Smith, George [1]; Allford, Craig [1]; Zhang, Shiyong [3]; Clarke, Edmund [3]; Buckle, Philip [1].
[1] Cardiff University; [2] Lancaster University; [3] EPSRC National Centre for III-V Technologies, University of Sheffield.

PM28
Spin-orbit coupling effects in zinc-blende InSb and wurtzite InAs nanowires
Campos, Tiago [1]; Faria Junior, Paulo Eduardo [2]; Gmitra, Martin [2]; Fabian, Jaroslav [2]; Sipahi, Guilherme [1].
[1] Universidade de São Paulo; [2] Regensburg University.

PM29
Electronic transport properties of bilayer phosphorene superlattices
Youness, Zahidi [1]; Ahmed, Jellal [2].
[1] Hassan 1st University / Polydisciplinary Faculty; [2] Chouaib Doukkali University / Faculty of Sciences.

PM30
Transmission and Goos-Hänchen shifts in bilayer graphene
Youness, Zahidi [1]; Ilham, Redouani [2]; Ahmed, Jellal [2].
[1] Hassan 1st University / Polydisciplinary Faculty; [2] Chouaib Doukkali University / Faculty of Sciences.

PM31
Decay of two-electron bound states in two-dimensional electron systems with inverted band spectrum
Sablikov, Vladimir; Shchamkhalova, Bagun.
IRE RAS.

PM32
Neutral donor energy structure and electric-field-induced optical transparency effect in multi-hilled quantum ribbon
Marín, Jairo Humberto [1]; Salazar, Juan David [2]; Fonnegra, Daniel [1]; Suaza, Yoder [1]; Mora-Ramos, Miguel [3].
[1] Universidad Nacional de Colombia/Escuela de Física; [2] Universidad Nacional deColombia/ Escuela de Física; [3] Universidad Autonoma de Morelos/Centro de investigación en ciencias-II CBA.

PM33
High Temperature Superconductivity in Monolayer $Bi_2Sr_2CaCu_2O_{8+\delta}$
Yu, Yijun [1]; Ma, Liguo [1]; Cai, Peng [1]; Ye, Cun [1]; Zhong, Ruidan [2]; Shen, Jian [1]; Gu, Genda [2]; Chen, Xian Hui [3]; Zhang, Yuanbo [1].
[1] Fudan University; [2] Brookhaven National Laboratory; [3] University of Science and Technology of China.

PM34
Isoelectronic Compounds to Phosphorene:
Stable Carbon Monosulfide 2D Nanostructures
Ayuela, Andres [1]; Alonso-Lanza, Tomas [1]; Gonzalez, Jhon W. [1]; Aguilera-Granja, Faustino [2].
[1] Centro de Física de Materiales MPC CSIC-UPV/EHU; [2] Instituto de Física, Universidad Autónoma de San Luis de Potosí.

PM35
Electroluminescence from indirect band gap semiconductor ReS_2
Gutierrez Lezama, Ignacio; Reddy, Bojja Aditya; Ubrig, Nicolas; Morpurgo, Alberto.
University of Geneva.

PM36
Electron transport in graphene field effect transisitors with periodic strain
Tomori, Hikari; Hiraide, Rineka; Kanda, Akinobu.
University of Tsukuba.

PM37
Interference effects in electron transport through graphene quantum point contacts
Clericò, Vito [1]; Delgado-Notario, Juan Antonio [1]; Saiz-Bretín, Marta [2]; Malyshev, Andrey [2]; Meziani, Yahya [1]; Domínguez-Adame, Francisco [2]; Diez, Enrique [1].

[1] Universidad de Salamanca (USAL); [2] Universidad Complutense.

PM38

Anderson transition in a developed network of 2D topological insulator edge states

Mahmoodian, Mahmood; Entin, Matvey.
Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Sciences.

PM39

Time-resolved tunneling between Landau levels in a weakly coupled quantum dot in the integer quantum Hall regime

Röösli, Marc P.; Hennel, Szymon; Braem, Beat A.; Kratochwil, Benedikt; Nicoli, Giorgio; Berl, Matthias; Reichl, Christian; Wegscheider, Werner; Ihn, Thomas; Ensslin, Klaus.
ETH Zürich.

PM40

Lithium Ion Glass Ceramic as gate dielectric for Light Emitting Field Effect Transistors

Philippi, Marc; Gutiérrez-Lezama, Ignacio; Ubrig, Nicolas; F. Morpurgo, Alberto.
DQMP Université de Genève.

PM41

Long-distance coherent coupling of quantum dots via an electronic cavity

Nicolí, Giorgio [1]; Ferguson, Michael Sven [2]; Rössler, Clemens [1]; Blatter, Gianni [2]; Ihn, Thomas [1]; Ensslin, Klaus [1]; Reichl, Christian [1]; Wegscheider, Werner [1]; Zilberberg, Oded [2].
[1] Solid State Physics Laboratory, ETH Zürich; [2] Institute for Theoretical Physics, ETH Zürich.

PM42

Adsorption of small molecules on blue-phosphorene oxides: Electronic properties

Zuluaga Hernandez, Edison Albert [1]; Dorkis, Ludovic [1]; Florez, Elizabeth [2]; Correa Abad, Julian David [2].
[1] Universidad Nacional de Colombia sede Medellin; [2] Universidad de Medellin.

PM43

Opto-electronic properties of MoS_2 quantum dots: Effects of geometry and external electric field

Bertel, Ramón [1]; Ramos, M. E. Mora [2]; Correa, Julian [3].
[1] Universidad de la Guajira; [2] Universidad Autónoma del Estado de Morelos; [3] Universidad de Medellín.

PM44

Direct determination of composition in In(Ga)N/GaN short period superlattices by quantitative HRSTEM

Dimitrakopulos, George P. [1]; Vasileiadis, Isaak G. [1]; Bazioti, Calliope [1]; Smalc-Koziorowska, Julita [2]; Kret, S?avomir [3]; Dimakis, Emmanouil [4]; Florini, Nikoletta [1]; Kehagias, Thomas [1]; Suski, Tadek [2]; Karakostas, Theodoros [1]; Moustakas, Theodore D. [5]; Komninou, Philomela [1].
[1] Physics Department, Aristotle University of Thessaloniki; [2] Institute of High Pressure Physics, Polish Academy of Sciences; [3] Institute of Physics, Polish Academy of Sciences; [4]

Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf; [5] Department of Electrical and Computer Engineering and Center for Photonics Research, Boston University.

PM45

Study of electronic band dispersion relation E(*K*) of structurally asymmetric InAs/$Al_{0.2}Ga_{0.8}$Sb QW by 8×8 Kane model Hamiltonian

Gholami, Mohammad Hosein [1]; Pakmehr, Mehdi [1]; Lo, Ikai [2].
[1] Shiraz University; [2] NSYS University.

PM46

Fano signatures in differential transmission spectra of MQW structures

Pedroso, Diogo De Moura [1]; Schmidt, Johannes [1]; Passaro, Angelo [2]; Helm, Manfred [1]; Schneider, Harald [1].
[1] Helmholtz Zentrum Dresden Rossendorf; [2] Instituto de Estudos Avançados.

PM47

Transport in disordered monolayer MoS_2: Interplay between vacancy-induced short-range and Coulomb disorder scattering

Kaasbjerg, Kristen [1]; Low, Tony [2]; Jauho, Antti-Pekka [1].
[1] Dept. of Micro and Nanotechnology, Technical University of Denmark; [2] Dept.of Electrical and Computer Engineering, University of Minnesota.

PM48

Theoretical results for the lattice contribution to the dielectric properties of MoS_2, $MoSe_2$ and SnS_2

Leite Alves, Horacio W.
Universidade Federal de São João del-Rei.

PM49

Circular dichroism of chiral Majoranas

Serra, Llorens; Osca, Javier.
IFISC, Univ. of the Balearic Islands.

PM50

Stability and electronic properties of HgMnTe alloys

De Carvalho, Luiz C. [1]; Silveira Jr., Orlando J. [2]; Leite Alves, Horacio W [1].
[1] Universidade Federal de São João del-Rei; [2] Universidade Federal de Minas Gerais.

PM51

A new 2D material for hydrogen storage application

Garara, Mourad.
Faculty of Sciences, Mohammed V University.

PM52

Modulation of the optical and electronic properties on phosphorene nanoribbons by atomic doping

Correa, Julian.
Universidad de Medellín.

PM53
Berry curvature and valley Hall effect in graphene antidot lattices
Martiny, Johannes H. J.; Kaasbjerg, Kristen; Jauho, Antti-Pekka.
Technical University of Denmark, Center for Nanostructured Graphene.

PM54
Dependence of photonic defect modes with the hydrostatic pressure in a 2D hexagonal lattice
Segovia, Francis.
Universidad Surcolombiana.

PM55
Electronic band structure and surface states of Cu-chalcopyrite semiconductors
Arriaga, Jesus [1]; Castellanos Águila, Jesus Eduardo [1]; Palacios Clemente, Pablo [2]; Wahnón Benarroch, Perla [2].
[1] Benemérita Universidad Autónoma de Puebla; [2] Universidad Politécnica de Madrid.

PM56
ANALYTICAL SOLUTIONS FOR THE SURFACE STATES IN SLAB GEOMETRIES OF TOPOLOGICAL SEMIMETALS
Benito-Matías, Enrique; A. Molina, Rafael.
Instituto de Estructura de la Materia (IEM), CSIC.

PM57
Photoluminescence in GaSe sheets induced by strain
Espinha, André; Lazi?, Snežana; Maeso, David; Rubio-Bollinger, Gabino; Van Der Meulen, Herko P..
Universidad Autonoma de Madrid.

PM58
Atomistic far field currents in graphene using DFT precision regions – how to couple DFT and tight-binding for graphene
Papior, Nick; Calogero, Gaetano; Brandbyge, Mads.
Technical University of Denmark.

PM59
Temperature-driven formation of ferrimagnetic nanoclusters in epitaxial Fe/Pt spintronic bilayers
Kehagias, Thomas [1]; Dimitrakopulos, George [1]; Karfaridis, Dimitrios [1]; Mihalceanu, Laura [2]; Vourlias, George [1]; Papaioannou, Evangelos [2].
[1] Physics Department, Aristotle University of Thessaloniki; [2] Department of Physics and National Research Center OPTIMAS, Technical University of Kaiserslautern.

PM60
Very Large Tunneling Magnetoresistance in Layered Magnetic Semiconductor CrI_3
Wang, Zhe [1]; Gutiérrez-Lezama, Ignacio [1]; Ubrig, Nicolas [1]; Kroner, Martin [2]; Imamo?lu, Ataç [2]; Giannini, Enrico [1]; Morpurgo, Alberto F. [1].
[1] DQMP; [2] Institute of Quantum Electronics.

PM61
Ultrafast magnetic hybridization of spin and orbital degrees of freedom in two-dimensional quantum rings
Chwiej, Tomasz; P?onka, Jakub.
AGH University of Science and Technology.

PM62
Piezoelectric Responses in Sm and Nd Ferroborates. Magnetopiezoelectric Effect
Fil, Vyacheslav [1]; Gaydamak(haidamak Pasport Name), Tetiana [1]; Gudim, Irina [2].
[1] B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine; [2] L.V. Kirensky Institute for Physics, Siberian Branch of the Russian Academy of Sciences, Krasnoyarsk, Russia.

PM63
Thermal conductivity measurements of three-dimensional nano-structures
Caballero-Calero, Olga; Abad-López, Begoña; Ruiz-Clavijo, Alejandra; Martín-González, Marisol.
Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC).

PM64
Theoretical studies of the stability and dielectric properties of PbSnTe alloys
Ribeiro Neto, Antonio R. [1]; Leite Alves, Horacio W. [1]; Scolfaro, Luisa M. R. [2]; Borges, Pablo D. [3].
[1] Universidade Federal de São João del-Rei; [2] Texas State University; [3] Universidade Federal de Viçosa.

PM65
Electronic bandgaps of gallium-zinc oxynitride
Bettadj, Latifa; Boufatah, Mohammed Reda; Merad, Abdelkrim.
University of Tlemcen.

Poster Session 24/07/2018 18:00

PT01
Optical properties of an exciton bound to an ionized donor impurity in ellipsoidal quantum dots under electric field and hydrostatic pressure
Yan, Zuwei; Shi, Lei.
College of Science, Inner Mongolia Agricultural University.

PT02
Dynamics of coherent polariton modes and tunable lasing in ZnO microwire cavities at room temperature
Michalsky, Tom; Wille, Marcel; Krüger, Evgeny; Grundmann, Marius; Schmidt-Grund, Rüdiger.
Felix Bloch Institute for Solid State Physics, Leipzig University.

PT03
Spatial Dispersion and Optical Magnetism of Finite-Thickness Ultrathin Plasmonic Films
Bondarev, Igor [1]; Shalaev, Vladimir [2].
[1] North Carolina Central University; [2] Purdue University.

PT04
Trion and Biexciton Complexes Formed by Indirect Excitons in Layered Quasi-2D Heterostructures
Bondarev, Igor [1]; Vladimirova, Maria [2].
[1] North Carolina Central University; [2] Lab. Charles Coulomb, University of Montpellier.

PT05
Single photons from an incoherently excited nonlinear system
Ghosh, Sanjib; C. H. Liew, Timothy.
Nanyang Technological University.

PT06
Effects of hydrostatic pressure on the band structure in two-dimensional square photonic lattice with defect
Segovia, Francis.
Universidad Nacional de Colombia, Universidad Surcolombiana.

PT07
Phonon effects on laser-driven quantum-dot cavity systems in the strong-coupling strong-driving limit
Cygorek, Moritz [1]; Barth, Andreas M. [2]; Ungar, Florian [2]; Vagov, Alexei [2]; Axt, Vollrath Martin [2].
[1] University of Ottawa; [2] University of Bayreuth.

PT08

Enhancement of the optical properties of monolayer MoS_2 via plasmonic gallium nanoparticles

Catalán Gómez, Sergio [1]; Garg, Sourav [2]; Redondo Cubero, Andrés [1]; Gordillo, Nuria [1]; Nucciarelli, Flavio [3]; Kim, Seonsing [2]; Kung, Patrick [2]; Pau, Jose Luis [1].
[1] Universidad Autónoma de Madrid; [2] University of Alabama; [3] Lancaster University.

PT09

Charge polarization effects on the optical response of GaN superlattices

Pereyra, Pedro [1]; Assaoui, Fatna [2].
[1] Universidad Autónoma Metropolitana, Azcapotzalco; [2] University Mohammed V.

PT10

Excitation of localized states in the flat band of exciton-polariton Lieb lattice

Sun, Meng [1]; Savenko, Ivan [2]; Flach, Sergej [2]; Rubo, Yuri [3].
[1] Institute for Basic Science Center for Theoretical Physics of Complex System; Basic Science Program, Korea University of Science and Technology; [2] Institute for Basic Science Center for Theoretical Physics of Complex System; [3] Institute for Basic Science Center for Theoretical Physics of Complex System; Instituto de Energi?as Renovables, Universidad Nacional Auto?noma de Me?xico.

PT11

Terahertz Light–Matter Interaction beyond Unity Coupling Strength

Halbhuber, Maike; Bayer, Andreas; Mornhinweg, Joshua; Zeller, Viola; Pozimski, Marcel; Schuh, Dieter; Huber, Rupert; Lange, Christoph; Bougeard, Dominique.
Universität Regensburg.

PT12

Static strain tuning of quantum dots embedded in a photonic wire

Tumanov, Dmitrii [1]; Vaish, Nitika [1]; Nguyen, Hoai Anh [1]; Curé, Yoan [2]; Gérard, Jean-Michel [2]; Claudon, Julien [2]; Donatini, Fabrice [1]; Poizat, Jean-Philippe [1].
[1] Université Grenoble Alpes, Institut Néel, CNRS; [2] Université Grenoble Alpes, CEA, INAC-PHELIQS.

PT13

A new pathway for controlling spontaneous emission in semiconductor nanowires

Dirnberger, Florian; Koller, Thomas; König, Jan; Schüller, Christian; Korn, Tobias; Bougeard, Dominique.
Institut für Experimentelle und Angewandte Physik/ Universität Regensburg.

PT14

Optical temperature sensing of $Ho^{3+}/Tm^{3+}/Yb^{3+}$ triple-doped oxyfluoride glasses based on non-thermally coupled levels

Liu, Jiaming Liu; Huang, Xing Huang; Zhang, Hao Zhang; Li, Wenxiu Li; Huang, Anping Huang; Xiao, Zhisong Xiao.
Beihang University.

PT15
Simulation and Depth Profiling of Vertical-cavity Structures for Quantum and Classical Emitters at Telecoms Wavelengths
Wilson, Thomas [1]; Hodgson, Peter [1]; Robson, Alex [2]; Counsell, Jonathan [3]; Hayne, Manus [1].
[1] Lancaster University; [2] Lancaster Material Analysis; [3] Kratos Analytical.

PT16
Optical properties of finite length chevron-type graphene nanoribbons
Saroka, Vasil [1]; Abdelsalam, Hazem [2]; Demin, Victor [3]; Grassano, Davide [4]; Kuten, Semen [1]; Pushkarchuk, Alexander [5]; Pulci, Olivia [4].
[1] Belarusian State University; [2] National Research Center; [3] Emanuel Institute of Biochemical Physics; [4] University of Rome Tor Vergata; [5] Institute of Physical Organic Chemistry.

PT17
Quantum emitter dynamics in a 1D topological photonic crystal
Bello Gamboa, Miguel [1]; Platero, Gloria [1]; González Tudela, Alejandro [2].
[1] Material Science Institute of Madrid, CSIC, 28049 Cantoblanco; [2] Max Planck Institute of Quantumoptics, 85748 Garchin.

PT18
Exciton filter in a system of double asymmetric quantum wells
Budkin, Grigory; Eremenko, Maxim; Reznitsky, Alexander.
Ioffe Institute.

PT20
Nonlinear optical response of a 2D layer of Λ-emitters: Emerging bistability, self-oscillations and hyperchaos
Giorgis, Valentina [1]; Malyshev, Andrey [2]; Malikov, Ramil [3]; Ryzhov, Igor [4]; Malyshev, Victor [5].
[1] Universidad Complutense; [2] Universidad Complutense de Madrid; [3] Akmullah State Pedagogical University of Bashkortostan; [4] Hertsen State Pedagogical University; [5] Zernike Institute for Advanced Materials, University of Groningen.

PT21
Research on the GaN based Whispering Gallery Mode Microtube Cavity
Li, Yufeng; Feng, Lungang; Shang, Geng; Yun, Feng.
Xi'an Jiaotong University.

PT22
Optical Properties of AlGaN Nanocolumns
Chen, Peng; Gao, Peng; Fang, Huajie; Xie, Zili; Xiu, Xiangqian; Chen, Dunjun; Hua, Xuemei; Zhang, Rong; Zheng, Youdou.
Nanjing University.

PT23
Enhancement of entanglement between exciton-polaritons by modulation of Josephson coupling
Stefanatos, Dionysios; Paspalakis, Emmanuel.
University of Patras, Materials Science Department.

PT24

Exciton localization and structural disorder in $GaAs_{1-x}Bi_x$/GaAs quantum wells grown by MBE on (311)B GaAs substrates

Prando, Gabriela A. [1]; Orsi Gordo, Vanessa [1]; Puustinen, Janne [2]; Alghamdi, Haifa M. [3]; Som, Gulcam [4]; Gunes, Mustafa [4]; Akyol, Mustafa [4]; Souto, Sergio [5]; Rodrigues, Ariano D. [1]; Galeti, Helder V. A. [6]; Henini, Mohamed [3]; Guina, Mircea [2]; Galvão Gobato, Yara [1].
[1] Departamento de Física, Universidade Federal de São Carlos; [2] Optoelectronics Research Centre, Tampere University of Technology; [3] School of Physics and Astronomy, University of Nottingham; [4] Department of Materials Engineering, Engineering and Natural Sciences Faculty, Adana Science and Technology University; [5] Departamento de Ciências Básicas, Faculdade de Zootecnia e Engenharia de Alimentos, Universidade de São Paulo; [6] Departamento de Engenharia Elétrica, Universidade Federal de São Carlos.

PT25

Exciton diffusion in a quantum dot ensemble

Kawa, Karol; Machnikowski, Pawe?.
Department of Theoretical Physics at Wroc?aw University of Science and Technology,.

PT26

Second and third harmonic generation in asymmetric multiple-step-like quantum well driven by intense laser field

Restrepo Arango, Ricardo León [1]; González Pereira, Juan Pablo [1]; Morales Aramburu, Álvaro Luis [2]; Duque Echeverri, Carlos Alberto [2].
[1] Universidad EIA; [2] Universidad de Antioquia.

PT27

Optical properties of GaNZnO

Boufatah, Mohammed Reda; Bettadj, Latifa; Merad, Abdelkrim.
University of Tlemcen.

PT28

Heavy-hole and electron states in coupled cylindrical quantum dots: Electric field effects

Restrepo Arango, Ricardo León [1]; Vinasco, Juan Alejandro [2]; Morales Aramburu, Álvaro Luis [2]; Radu, Adrian [3]; Duque Echeverri, Carlos Alberto [2].
[1] Universidad EIA; [2] Universidad de Antioquia; [3] University of Bucharest.

PT29

GaAs nanoantennas on Si with bandgap-tuned Mie resonances

Raya, Andrés M. [1]; Friedl, Martin [2]; Llorens, José M. [1]; Alén, Benito [1]; Fuster, David [1]; Martí-Sánchez, Sara [3]; Francaviglia, Luca [2]; Tütüncüoglu, Gözde [2]; Arbiol, Jordi [3]; Fontcuberta I Morral, Anna [2].
[1] Instituto de Micro y Nanotecnología, IMN-CNM CSIC; [2] Ecole Polytechnique Fédérale de Lausanne, EPFL; [3] Catalan Institute of Nanoscience and Nanotechnology, ICN2.

PT30

Polaron resonances and persistence of spatial coherence in self-assembled double quantum dots

Karwat, Pawe?; Gawarecki, Krzysztof; Machnikowski, Pawe?.
Wroc?aw University of Science and Technology.

PT32

Purcell-enhanced generation of indistinguishable on-chip single photons

Liu, Feng [1]; Brash, Alistair J. [1]; O'hara, John [1]; Martins, Luis M.p.p. [1]; Phillips, Catherine L. [1]; Coles, Rikki J. [1]; Royall, Ben [1]; Clarke, Ed [1]; Bentham, Chris [1]; Prtljaga, Nikola [1]; Itskevich, Igor E. [2]; Wilson, Luke R. [1]; Skolnick, Maurice S. [1]; Fox, Mark [1].
[1] University of Sheffield; [2] University of Hull.

PT33

Built in electric field effects on the conversion efficiency in intermediate band solar cells.

El Aouami, Asmae [1]; Mohamed, El Haouari [2]; El-Yadri, Mohammed [1]; Aghoutane, Noureddine [1]; Feddi, El Mustapha [1]; Dujardin, Francis [3].
[1] Laboratoire de Matière Condensée et Sciences Interdisciplinaires (LaMCScI), Group of Optoelectronic of Semiconductors and Nanomaterials, ENSET, Mohammed V University in Rabat, Morocco; [2] Centre Régional des Métiers de l?Education et de Formation (CRMEF), Tanger, Morocco; [3] Institut de Chimie, Physique et Matériaux, LCP-A2MC, Université de Lorraine, Metz, France.

PT34

Light hole excitons in elongated nanowire quantum dots

Kimon, Moratis [1]; Marta, Orru [1]; Edith, Bellet-Amalric [2]; Eric, Robin [2]; Gilles, Nogues [1]; Fabrice, Donatini [1]; Regis, Andre [1]; Yann-Michel, Niquet [2]; Joel, Cibert [1]; David, Ferrand [1].
[1] University Grenoble-Alpes / Institut Neel CNRS; [2] University Grenoble-alpes / CEA-INAC.

PT35

Dynamics of the resonantly excited spinor exciton-polariton systems in GaAs microcavities: coherence, polarization and distributions in real and momentum spaces.

Kulakovskii, Vladimir [1]; Demenev, Andrey [1]; Brichkin, Andrey [1]; Gavrilov, Sergey [1]; Cippius, Nikolay [2].
[1] Institute of solid state physics RAS; [2] Skolkovo Institute of Science and Technology.

PT36

Atomic scale heterostructures: Controlling the Reststrahlen band with Superlattice Design

Chatzakis, Ioannis [1]; Giles, Alexander [1]; Ratchford, Daniel [1]; Winta, Christopher [2]; Passler, Nikolai [2]; Dev, Pratibha [3]; Katzer, Scott [1]; Razdolsk, Ilya [2]; Ellis, Chase [1]; Tischler, Joe [4]; Vurgaftman, Igor [1]; Reinecke, Tom [1]; Bassim, Nabil [1]; Winterstein, Jonathan [4]; Nepal, Neeraj [4]; Wolf, Martin [5]; Paarmann, Alex [5]; Caldwell, Joshua D. [6].

[1] U.S. Naval Research Laboratory; [2] Physikalische Chemie, Fritz-Haber-Institut der MPG; [3] Howard University, Department of Physics and Astronomy; [4] U.S. Naval Research Laboratory,; [5] Physikalische Chemie, Fritz-Haber-Institut der MPG,; [6] Electrical and Mechanical Engineering, Vanderbilt University.

PT37

Investigation of Unpatterned Etching of Nanostructures in Immobilized Cubic-Boron Nitride for Infrared Nanophotonic Elements

Chatzakis, Ioannis [1]; Krishna, Athith [2]; Giles, Alexander [1]; Sharac, Nicholas [1]; Spencer, Michael G. [3]; Caldwell, Joshua D [4].
[1] U.S. Naval Research Laboratory; [2] School of Electrical and Computer Engineering, Cornell University; [3] School of Electrical and Computer Engineering, Cornell University,; [4] Electrical and Mechanical Engineering, Vanderbilt University.

PT38

Space-and-time coherent evolution of spatially indirect excitons: the role of the internal dynamics

Goldoni, Guido [1]; Grasselli, Federico [2]; Bertoni, Andrea [3].
[1] University of Modena and Reggio Emilia; [2] International School for Advanced Studies; [3] CNR-NANO S3, Istituto Nanoscienze.

PT40

Temperature and Pressure Effects on binding energy of a (D^+,X) complex in a Spherical Quantum Dot.

Aghoutane, Noreddine [1]; Feddi, Elmustapha [1]; El-Yadri, Mohammed [1]; Elaouami, Asmae [1]; Dujardin, Francis [2].
[1] Mohammed V University; [2] Lorraine university.

PT41

Tomography of the optical polarization rotation induced by a single quantum dot in a cavity

Paul, Hilaire; Carlos, Anton; Clément, Millet; Abdelmounaim, Harouri; Aristide, Lemaître; Isabelle, Sagnes; Olivier, Krebs; Norberto Daniel, Lanzillotti-Kimura; Niccolo, Somaschi; Pascale, Senellart; Loïc, Lanco.
Center of nanosciences and Nanotechnology (C2N), University Paris-Saclay, Marcoussis, France.

PT42

InAs-based nanowire quantum structures for advanced infrared photodetection

Zhuang, Qiandong [1]; Jin, Z. M. [2]; Alradhi, H. [2]; Chen, X. R. [3]; Shao, J. [3]; Fang, H. H. [3]; Hu, W. D. [3]; Li, H. D. [1]; Wang, Z. M. [1]; Sanchez, A. M. [4].

[1] Institute of Fundamental and Frontier Sciences, University of Electronic Science and Technology of China; [2] Physics department, Lancaster University; [3] Physics Department, Warwick University; [4] National Laboratory for Infrared Physics, Shanghai Institute of Technical Physics, Chinese Academy of Sciences.

PT43
Unconventional Lasing from Quantum Dots in the Cavity-QED Regime
Moody, Galan [1]; Segnon, Mawussey [2]; Belabas, Nadia [3]; Jahnke, Frank [2]; Silverman, Kevin [1]; Mirin, Richard [1]; Gies, Christopher [2]; Stevens, Martin [1].
[1] NIST; [2] University of Bremen; [3] CNRS-LPN.

PT44
Deep level transient spectroscopy characterisation of 107 MeV Kr^{2+} irradiated N-doped 4*H*-SiC
Omotoso, Ezekiel; Meyer, Walter Ernt; Auret, Francois Danie.
University of Pretoria.

PT45
Hall effect and magnetization measurements of Cobalt (Co) doped Zinc Oxide (ZnO) polycristalines samples.
Bautista, Nelly; Mariño, Álvaro.
Universidad Nacional de Colombia.

PT46
MOVPE growth and transport properties of rhombohedral Bi2-xSbxTe3-ySey films
Kuznetsov, P.i.; Shchamkhalova, Bagun; Yakushcheva,, G.g.; Jitov, V.a.; Sizov, V.e.; Luzanov, V.a.; Yapaskurt, V.o.; Shcherbakov, V.d..
IRE RAS.

PT47
Cu Ion Implantation improvesthe performance of Si film anode used in Lithium ion battery
Hu, Zheng-Guang; Cheng, Guo-An; Zheng, Rui-Ting.
Beijing Normal University.

PT48
AlGaN avalanche photodiodes based on self-assembled nano-pattern AlN templates
Chen, Dunjun; Xie, Zili; Xiu, Xiangqian.
Nanjing University.

PT49
GaN nanorods converted from beta-Ga_2O_3
Xiu, Xiangqian; Hua, Xuemei; Li, Yuewen; Chen, Peng; Xie, Zili; Chen, Dunjun; Zhang, Rong; Zheng, Youdou.
Nanjing university.

PT50
Stranski-Krastanov growth of InN nanocolumns on Si(111) substrates
Lopez-Lopez, Maximo [1]; Casallas-Moreno, Yenny Lucero [2]; Gallardo-Hernández, Salvador [1]; Ramírez-López, Manolo [2]; Arias-Cerón, Jose Saul [1]; Santoyo-Salazar, Jaime [1]; Mendoza-Álvarez, Julio [1].
[1] Centro de Investigacion y de Estudios Avanzados del IPN; [2] Instituto Politécnico Nacional - UPIITA.

PT51
Cubic $In_xGa_{1-x}N$/GaN quantum wells grown on GaAs(001) by molecular beam epitaxy and migration enhanced epitaxy
Casallas-Moreno, Yenny Lucero [1]; Gallardo-Hernández, Salvador [2]; Hernández Gutiérrez, Carlos [2]; Arias-Cerón, Jose Saul [2]; López-López, Maximo [2].
[1] Instituto Politecnico Nacional UPIITA; [2] Centro de Investigación y de Estudios Avanzados del IPN.

PT52
Piezotronic and Hall properties of individual ZnO microwirePiezotronic and Hall properties of individual ZnO microwire
Shin, Dong-Hoon [1]; Kim, Hakseong [2]; Kwon, Min-Hee [1]; Lee, Sang Wook [1].
[1] Ewha Womans University; [2] Korea Research Institute of Standards and Science.

PT53
Study of electron-related optical responses in Tietz-Hua quantum well: Role of applied external fields
Ungan, Fatih [1]; Yesilgul, Unal [1]; Sakiroglu, Serpil [2]; Kasapoglu, Esin [1]; Sari, Huseyin [1]; Sökmen, Ismail [2].
[1] Cumhuriyet University; [2] Dokuz Eylül University.

PT54
Influence of properties of contacts on electromagnetic properties of semiconductor superlattices
Shorokhov, Alexey [1]; Prudskikh, Natalia [1]; Alekseev, Kirill [2].
[1] National Research Mordovia State University; [2] Loughborough University.

PT55
Germanium Quantum Wells in the Conduction Band for Terahertz Emission on Silicon Substrates
Ciano, Chiara [1]; Montanari, Michele [1]; Capellini, Giovanni [2]; Di Gaspare, Luciana [1]; Virgilio, Michele [3]; Paul, Douglas J. [4]; Scalari, Giacomo [5]; Birner, Stefan [6]; Grange, Thomas [6]; Baldassarre, Leonetta [7]; Ortolani, Michele [7]; De Seta, Monica [1].
[1] University of Roma Tre; [2] IHP; [3] University of Pisa; [4] University of Glasgow; [5] ETH Zurich; [6] nextnano GmbH; [7] University La Sapienza.

PT56
THz emission and detection by quantum Faraday effect in silicon nanosandwich-structures
Bagraev, Nikolay; Khromov, Vyacheslav; Klyachkin, Leonid; Malyarenko, Anna.
Ioffe Institute.

PT57
THz Spectroscopy of Surface States in 3D Topological Insulators based on Strained High Mobility HgTe Films
Candussio, Susanne [1]; Otteneder, Maximilian [1]; Kozlov, Dmitriy [2]; Dantscher, Kathrin-Maria [1]; Hubmann, Stefan [1]; Tarasenko, Sergey [3]; Bel`kov, Vasily [3]; Kvon, Ze-Don [2]; Budkin, Grigory [3]; Dvoretsky, S.a. [3]; Ganichev, Sergey [1].
[1] Terahertz Center; [2] A.V. Rzhanov Institute of Semiconductor Physics; [3] Ioffe Institute.

PT58
Terahertz Detector Structure Using Silicon CMOS
Liu, Liyuan; Liu, Jian; Wu, Nanjian.
Institute of Semiconductors, CAS.

PT59
Electronic properties of semiconductor elliptical quantum rings
Vinasco, Juan Alejadro [1]; Radu, Adrian [2]; Kasapoglu, Esin [3]; Restrepo Arango, Ricardo León [4]; Morales Aramburu, Álvaro Luis [1]; Feddi, Elmustapha [5]; Mora Ramos, Miguel Eduardo [6]; Duqueecheverri, Carlos Alberto [1].
[1] Universidad de Antioquia; [2] University of Bucharest; [3] Cumhuriyet University; [4] Universidad EIA; [5] Mohammed V University in Rabat; [6] Universidad Autónoma del Estado de Morelos.

PT60
Broadband terahertz modulation in electrostatically-doped artificial trilayer graphene
Chatzakis, Ioannis; Li, Zhen; Benderskii, Alexander V.; Cronin, Stephen B..
University of Southern California,.

PT61
New "nano surface texture & nanoFWHM" of Si- based materials for nanomulti emitters, nano capacitors, nanoelectronic Gates and nanosolar cell
Qasim Saleh, Professor Doctor Kifah.
Ministry of Higher Education ,Supervision & Scientific Evaluation.

PT62
Strain Engineering for Orthorhombic Hybrid Perovskite $CH_3NH_3PbI_3$: The Potential Application as a Photocatalyst
Al-Shami, Ahmed Ahmed Mohsen.
Mohammed V.

PT63
Structural optimization of superlattice infrared photodetectors by evolutionary computation methods
C. B. L. Póvoa, Rogério [1]; H. Pereira, Pedro [1]; M. Torelly, Guilherme [1]; M. Dias, Douglas [2]; M. Penello, Germano [3]; L. Souza, Patrícia [1]; A. C. Horta, Bruno [3].
[1] PUC-Rio; [2] UERJ; [3] UFRJ.

PT64
GaAs nanowire thermal oxidation by optical pumping
Sampaio Pimenta., Ana Clara [1]; Limborço, Henrique [2]; Ramos, Sérgio L. [3]; González, Juan C. [1]; Matinaga, Franklin M. [1].
[1] ICEX – UFMG; [2] UFMG, UFMG,; [3] UFMG.

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PTH01
Expanded functionalities of a quantum dot-based transistor
Lopez-Richard, Victor [1]; Hartmann, Fabian [2]; Maier, Patrick [2]; Rebello Sousa Dias, Mariama [1]; Emmerling, Monika [2]; Schneider, Christian [2]; Castelano, Leonardo [1]; Kamp, Martin [2]; Marques, Gilmar [1]; Pershin, Yuriy [3]; Worschech, Lukas [2]; Hofling, Sven [2].
[1] Universidade Federal de Sao Carlos; [2] Technische Physik, Universität Würzburg; [3] University of South Carolina.

PTH02
A route to efficiently implement qutrit gates in double quantum dots
Rivera-Ruiz, Carlos [1]; De Lima, Emanuel [1]; Fanchini, Felipe [2]; Lopez-Richard, Victor [1]; Castelano, Leonardo [1].
[1] Federal University at Sao Carlos; [2] Sao Paulo State University.

PTH03
Efficient Implementation of the Universal Set of Quantum Gates in Quantum Dots
Castelano, Leonardo [1]; De Lima, Emanuel [2]; Madureira, Justino [3]; Degani, Marcos [4]; Maialle, Marcelo [4].
[1] Federal University at Sao carlos; [2] Federal University at Sao Carlos; [3] Federal University at Uberlandia; [4] The University of Campinas.

PTH04
Double quantum dots in undoped ^{28}Si/SiGe
Schauer, Floyd [1]; Hollmann, Arne [2]; Schmidbauer, Andreas [1]; Neumann, Christian [1]; Weinberger, Tobias [1]; Sawano, Kentarou [3]; Struck, Tom [2]; Leonhardt, Tim [2]; Schreiber, Lars [2]; Bougeard, Dominique [1].
[1] Institut für Experimentelle und Angewandte Physik, Universität Regensburg; [2] JARA-FIT Institute for Quantum Information, Forschungszentrum Jülich and RWTH Aachen University; [3] Advanced Research Laboratories, Tokyo City University.

PTH05
Singlet-triplet population transfer via dark state in a double-quantum-dot qubit
Z. Maialle, Marcelo [1]; H. Degani, Marcos [1]; K. Castelano, Leonardo [2].
[1] FCA- State University of Campinas - UNICAMP; [2] Physics Department. Univ. Federal de São Carlos.

PTH07
Charge distribution effects and optical response of an off-axis donor in elongated quantum ring
Marín, Jairo [1]; Gutierrez, William [2]; Mikhailov, Ilia [2].
[1] Universidad Nacional de Colombia/Escuela de Física; [2] Universidad Industrial de Santander/Escuela de Física.

PTH08
Long-range entanglement generation between nuclear ensembles in quantum dots
Bello Gamboa, Miguel [1]; Benito, Mónica [2]; Schuetz, Martin J. A. [3]; Platero, Gloria [1]; Giedke, Geza [4].
[1] Material Science Institute of Madrid, CSIC, 28049 Cantoblanco, Madrid; [2] Department of Physics, University of Konstanz, 78464 Konstanz; [3] Department of Physics, Harvard University, 02138 Cambridge; [4] Donostia International Physics Center, 20018 Donostia.

PTH09
The role of the phase accumulation in Landau-Zener-Stückelberg-Majorana dynamics in an electrically driven flip of a hole spin
Pasek, Wojciech Julian; Maialle, Marcelo Zoega; Degani, Marcos Henrique.
School of Applied Sciences, University of Campinas.

PTH10
Spin Bath Decoherence in quantum systems
Gómez León, Álvaro.
ICMM.

PTH11
Caractérisation physico-chimique des rejets de flottation des phosphates et leurs impacts environnementaux
Bouchdoug, Mohammed; Mahrouz, Mostafa; Jaouad, Abderrahim; Elfadil, Saida.
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PTH12
Structural and lattice dynamic properties of Mg_2Sn and Mg_2Pb compounds.
Chaouche, Yassine.
University of Larbi Tébessi.

PTH13
Signatures of a 4π-periodic supercurrent in the voltage response of a capacitively-shunted Josephson junction
Picó-Cortés, Jordi [1]; Domínguez, Fernando [2]; Platero, Gloria [1].
[1] ICMM-CSIC; [2] University of Würzburg.

PTH14
Quantum simulations with a linear array of semiconductor quantum dots
Van Diepen, Cornelis Jacobus [1]; Hensgens, Toivo [1]; Fujita, Takafumi [1]; Janssen, Laurens [1]; Li, Xiao [2]; Reichl, Christian [3]; Wegscheider, Werner [3]; Das Sarma, Sankar [2]; Vandersypen, Lieven Mark Koenraad [1].
[1] Delft University of Technology, Qutech; [2] University of Maryland, JQI; [3] Solid state physics laboratory.

PTH15
Spin-orbit coupling and magnetic field dependence of carrier states in a self-assembled quantum dot
Gawarecki, Krzysztof.
Wroc?aw University of Science and Technology.

PTH16
Tunable energy dispersion in Si quantum-dot qubits with atomic-scale disorder
Abadillo-Uriel, José Carlos [1]; Thorgrimsson, Brandur [2]; Kim, Dohun [3]; Smith, L. W. [2]; Simmons, C. B. [2]; Ward, Daniel R. [2]; Foote, Ryan H. [2]; Corrigan, J. [2]; Savage, D. E. [4]; Lagally, M. G. [4]; Calderón, M. J. [1]; Coppersmith, S. N. [2]; Eriksson, M. A. [2]; Friesen, Mark [2].
[1] Material Science Institute of Madrid, CSIC; [2] Department of Physics, University of Wisconsin-Madison; [3] Department of Physics and Astronomy, and Institute of Applied Physics, Seoul National University; [4] Department of Materials Science and Engineering, University of Wisconsin-Madison.

PTH17
Excess conductivity and pseudogap in YBa2Cu3O7-δ nanolayers
Omelchenko, Lyudmila; Solovjov, Andrei.
B. Verkin ILTPE of NASU - B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine.

PTH18
Particle and wave transport in driven quantum networks of harmonic oscillators
Babajanov, Doniyor [1]; Yusupov, Jambul [1]; Matyoqubov, Hikmatjon [2]; Matrasulov, Davron [1].
[1] Turin Polytechnic University in Tashkent; [2] Urgench State University.

PTH19
All-electric optical key switch and the seeming paradox of increasing on-off resolution for higher T
Lopez-Richard, Victor [1]; Hartmann, Fabian [2]; Pfenning, Andreas [2]; Rebello Sousa Dias, Mariama [1]; Langer, Fabian [2]; Castelano, Leonardo [1]; Kamp, Martin [2]; Marques, Gilmar [1]; Worschech, Lukas [2]; Hofling, Sven [2].
[1] Universidade Federal de Sao Carlos; [2] Universität Würzburg.

PTH20
The effect of dissipative impedance on tunnelling in hybrid superconductor—normal-metal structures
Bubanja, Vladimir.
Measurement Standards Laboratory of New Zealand.

PTH21
Electronic transport through an aromatic molecular wire with Terphenyl units
Ojeda Silva, Judith Helena [1]; Ribeiro, Allan Victor [2].
[1] UNIVERSIDAD PEDAGÓGICA Y TECNOLÓGICA DE COLOMBIA; [2] Instituto Federal de Educação, Ciência e Tecnologia de São Paulo.

PTH22
Interacting and noninteracting molecular tunnel junctions: Temperature and magnetic effects
Sierra Seco De Herrera, Miguel Ambrosio [1]; Sánchez, David [1]; Garrigues, Alvar R. [2]; Del Barco, Enrique [2]; Wang, Lejia [3]; Nijhuis, Christian A. [4].
[1] IFISC (UIB-CSIC); [2] University of Central Florida; [3] Ningbo University of Technology; [4] National University of Singapore.

PTH23
Superluminal physics of electrons in a miniband superlattice under coherent phonon driving
Apostolakis, Apostolos [1]; Alekseev, Kirill [2]; Kusmartsev, Feo [2]; Balanov, Alexander [2].
[1] Department of Condensed Matter Theory, Institute of Physics, CAS; [2] Department of Physics, Loughborough University.

PTH24
Optical phonon scattering on electronic mobility in asymmetric AlGaN/GaN double heterostructures
Chai, Yajing; Zan, Yuhai; Ban, Shiliang.
School of Physical Science and Technology, Inner Mongolia University.

PTH25
Electron transport and thermoelectricity in quantum dot Cooper-pair splitters
Hussein, Robert [1]; Kohler, Sigmund [2]; Belzig, Wolfgang [1]; Giazotto, Francesco [3]; Governale, Michele [4]; Braggio, Alessandro [3].
[1] University of Konstanz; [2] Instituto de Ciencia de Materiales de Madrid, CSIC; [3] Istituto Nanoscienze, CNR; [4] Victoria University of Wellington.

PTH26
Photoconductive mode of an asymmetric superlattice infrared photodetector with leaky electronic states
Pereira, Pedro H. [1]; Penello, Germano M. [2]; Pires, Mauricio P. [2]; Svico, Deborah [3]; Gmachl, Claire [3]; Souza, Patricia L. [1].
[1] Pontifícia Universidade Católica do Rio de Janeiro; [2] Universidade Federal do Rio de Janeiro; [3] Princeton University.

PTH27
Superlattice solar cells based on GaAs/GaInNAs
Contreras-Solorio, David Armando [1]; Cabrera, Carlos Iván [1]; Enciso, Agustín [1]; Rimada, Julio César [2]; Hernández, Luis [3].
[1] Autonomous University of Zacatecas, Academic Unit of Physics; [2] University of Havana, Solar Cell Laboratory (IMRE); [3] University of Havana, Faculty of Physics.

PTH28
Relaxation and decoherence of hot electrons from single-electron sources due to acoustic phonon emission
Clark, Lewis [1]; Johnson, Nathan [2]; Kataoka, Masaya [3]; Emary, Clive [1].
[1] Newcastle University; [2] NTT Basic Research Laboratories; [3] National Physical Laboratory.

PTH29
Characterization of a surface plasmon antenna fabricated on a single heterojunction structure
Fukai, Rio; Sakai, Yuji; Nakagawa, Tomohiro; Kiyama, Haruki; Oiwa, Akira.
The Institute of Scientific and Industrial Research, Osaka University.

PTH30
Electronic phase transitions in thin films of $Bi_{1-x}Sb_x$ solid solutions
Rogacheva, Elena [1]; Doroshenko, Anna [1]; Nashchekina, Olga [2].
[1] National Technical University "Kharkiv Polytechnical Institute; [2] National Technical University "Kharkiv Polytechnical Institute"e.

PTH31
Size effects in transport properties of $Bi_{1-x}Sb_x$ thin films
Rogacheva, Elena; Orlova, Daria; Nashchekina, Olga.
National Technical University "Kharkiv Polytechnical Institute".

PTH33
Non-linear spin dynamics in helical molecules: soliton stability
Contreras, Ana; Domínguez-Adame, Francisco; Díaz, Elena.
Universidad Complutense.

PTH34
Quench dynamics in superconducting nanojuncions: metastability and dynamical phase transitions
Seoane Souto, Rubén; Martín Rodero, Álvaro; Levy Yeyati, Alfredo.
Universidad Autónoma de Madrid.

PTH35
Self-consistent dynamics in interacting nanojunctions: the fate of bistability
Seoane Souto, Rubén [1]; Avriller, Rémi [2]; Levy Yeyati, Alfredo [1]; Martín Rodero, Álvaro [1].
[1] Universidad Autónoma de Madrid; [2] Bordeaux university.

PTH36
Lattice thermal transport in graphene nanostructures: a molecular dynamics and DFTB study
Saiz Bretín, Marta [1]; Medrano Sandonas, Leonardo [2]; Malyshev, Andrey [1]; Gutierrez, Rafael [2]; Cuniberti, Gianaurelio [2]; Domínguez-Adame, Francisco [1].
[1] Universidad Complutense; [2] TU Dresden.

PTH37
Non-invasive refrigeration with superconducting single-electron junctions
Sánchez, Rafael.

Universidad Autónoma de Madrid.

PTH38
The fabricate and property of the highly ordered InGaN/GaN elliptic nanoroad arrays on wafer scale
Xie, Zili; Tao, Tao; Zhao, Hong; Chen, Peng; Chu, Jiapeng; Zhi, Ting; Zhuang, Zhe; Liu, Bin; Chen, Dunjun; Zhang, Rong; Zheng, Youdou.
Nanjing University.

PTH39
Graphene-ferromagnet based spin lenses
Saiz-Bretín, Marta; Baba, Yuriko; Malyshev, Andrey V.; Domínguez-Adame, Francisco.
Universidad Complutense.

PTH40
Interband optical absorption in ZnO/$Mg_xZn_{1-x}O$ core-shell nanowires
Xue, Zhongxian; Qu, Yuan; Ban, Shiliang.
School of Physical Science and Technology, Inner Mongolia University.

PTH41
PT-symmetric quantum switch operating near exceptional point
Gorbatsevich, Alexander [1]; Krasnikov, G.ya. [2]; Shubin, N.m. [3].
[1] P.N. Lebedev Physical Institute of RAS; [2] JSC MERI, 1st Zapadnyi pr.; [3] P.N.Lebedev Physical Institute of RAS; JSC MERI, 1st Zapadnyi pr.; ; National Research University of Electronic Technology - MIET.

PTH42
Thermoelectric performance of topological boundary modes
Böhling, Sina [1]; Engelhardt, Georg [2]; Platero, Gloria [3]; Schaller, Gernot [1].
[1] Institut für Theoretische Physik, Technische Universität Berlin; [2] Beijing Computational Science Research Center; [3] Instituto de Ciencia de Materiales de Madrid, CSIC.

PTH43
Classical Tomography of Single-Electron Wavepacket Energy and Time Distributions
Fletcher, Jonathan [1]; Johnson, Nathan [1]; Locane, Elina [2]; See, Patrick [1]; Jones, Geb [3]; Griffiths, Jon [3]; Farrer, Ian [3]; Ritchie, Dave [3]; Brouwer, Piet [2]; Kashcheyevs, Vyacheslavs [4]; Kataoka, Masaya [1].
[1] National Physical Laboratory; [2] Dahlem Center for Complex Quantum Systems; [3] Cavendish Laboratory; [4] Faculty of Physics and Mathematics.

PTH44
Electronic transport at high magnetic fields in broken-gap nanowire heterostructures
Pezzini, Sergio [1]; Rocci, Mirko [2]; Bellani, Vittorio [3]; Gomes, Umesh [2]; Zannier, Valentina [2]; Clericò, Vito [4]; Diez, Enrique [4]; Diaz Fernandez, Alvaro [5]; Diaz Garcia, Elena [5]; Roddaro, Stefano [2]; Sorba, Lucia [2]; Beltram, Fabio [2]; Rossella, Francesco [2].
[1] High Field Magnet Laboratory, Radboud University, Nijmegen, The Netherlands; [2] NEST, Scuola Normale Superiore and Istituto Nanoscienze-CNR, Pisa, Italy; [3] Dipartimento di

Fisica, Università di Pavia, Pavia, Italy; [4] Nanotechnology Group, Universidad de Salamanca, Salamanca, Spain; [5] Departamento de Física de Materiales, Universidad Complutense Madrid, Madrid, Spain.

PTH45
Heterostructured GaN/AlN nanowires with linear photoresponse
Maria, Spies [1]; Jakub, Polaczy?ski [1]; Akhil, Ajay [2]; Dipankar, Kalita [2]; Jonas, Lähnemann [2]; Bruno, Gayral [2]; Martien I., Den Hertog [1]; Eva, Monroy [2].
[1] University Grenoble-Alpes, CNRS, Institut Néel, Grenoble, France; [2] University Grenoble-Alpes, CEA, INAC, Grenoble, France.

PTH46
Charge Reconfiguration in Isolated Quantum Dot Arrays
Bayer, Johannes C.; Wagner, Timo; Rugeramigabo, Eddy P.; Haug, Rolf J..
Institut für Festkörperphysik, Lebniz Universität Hannover.

PTH47
Recursive scattering matrix method for multi-terminal nanostructures
Ramírez, Carlos; Medina-Amayo, Luis Arturo.
Universidad Nacional Autónoma de México.

PTH48
Bias-dependent forces in C_{60} single-molecule junctions
Leitherer, Susanne [1]; R. Papior, Nick [1]; Brand, Jonathan [2]; Neel, Nicolas [2]; Kröger, Jörg [2]; Brandbyge, Mads [1].
[1] Technical University of Denmark; [2] Technische Universität Ilmenau.

PTH49
Spin tuning with structure asymmetry, impurities, and defects in quantum dots
Lopez-Richard, Victor [1]; Paes Lima, Matheus [1]; Cabral, Luis [1]; Sabino, Fernando [2]; Lopes-Oliveira, Vivaldo [3]; Da Silva, Juarez [2]; Marques, Gilmar [1].
[1] Universidade Federal de Sao Carlos; [2] Universidade de Sao Paulo; [3] 3Universidade Estadual de Mato Grosso do Sul.

PTH51
Trend reversal of exciton spin-transfer rates in diluted magnetic semiconductors with in-plane magnetic field
Ungar, Florian [1]; Cygorek, Moritz [2]; Axt, Vollrath Martin [1].
[1] University of Bayreuth; [2] University of Ottawa.

PTH52
Persistent spin helix in II-VI semiconductors: origin and manipulation
Anghel, Sergiu [1]; Passmann, Felix [1]; Poshakinskiy, Alexander [2]; Tarasenko, Sergey [2]; Karczewski, Grzegorz [3]; Wojtowicz, Tomasz [3]; Bristow, Alan D. [4]; Betz, Markus [1].
[1] Technische Universität Dortmund; [2] Ioffe Insitute; [3] Institute of Physics, Polish Academy of Science; [4] Department of Physics and Astronomy, West Virginia University.

PTH53
Super-long-living spin excitations in a purely electronic two-dimensional unpolarized gas in a perpendicular magnetic field.
Sergey, Dickmann.
Institute of Solid State Physics of RAS.

PTH54
Spin decoherence mechanisms of a single electron bound to donor in a CdTe Quantum Well
Garcia Arellano, Guadalupe [1]; Bernardot, Frédéric [1]; Karczewski, Grzegorz [2]; Testelin, Christophe [1]; Chamarro, Maria [1].
[1] Sorbonne Universités, Institut de NanoSciences de Paris INSP; [2] Polish Academy of Sciences.

PTH55
Current induced torque driven ferromagnetic resonance in freely suspended GaMnAs nanostructures
Yang, Chanuk; Han, Sanghyeon; Kim, Kitae; Park, Seondo; Kang, Seokwon; Park, Yun Daniel.
Seoul National University.

PTH56
Spin transistor effect in ultra-narrow silicon quantum wells
Bagraev, Nikolay; Khromov, Vyacheslav; Klyachkin, Leonid; Malyarenko, Anna.
Ioffe Institute.

PTH58
Rashba spin-orbit coupling in polygonal semiconductor nanowires
Wójcik, Pawel [1]; Bertoni, Andrea [2]; Goldoni, Guido [3].
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PTH59
Spin Mobility in a 2DEG with Persistent Spin Helices
Luengo-Kovac, Marta [1]; Moraes, Flavio C.d. [2]; Ferreira, Gerson J. [3]; Ribeiro, Amina S.l. [2]; Gusev, Gennady M. [2]; Bakarov, Askhat K. [4]; Sih, Vanessa [1]; Hernandez, Felix [2].
[1] University of Michigan; [2] University of Sao Paulo; [3] Universidade Federal de Uberlandia; [4] Institute of Semiconductor Physics.

PTH60
Frenkel-Charge-Transfer Exciton Intermixing Theory for Crystalline Transition Metal Phthalocyanines
Bondarev, Igor; Popescu, Adrian.
North Carolina Central University.

PTH61
Rational design of ion-selective membranes via self-organisation of 3,4,5-tris(alkyloxy)benzenesulfonic acid derivatives
Stupnikov, Alexei [1]; Malakhova, Yulia [2]; Bakirov, Artem [1]; Shcherbina, Maxim [3]; Chvalun, Sergei [1].
[1] NRC "Kurchatov Institute"; [2] MIREA; [3] ISPM RAS.

PTH62
Frequency response of a microcantilever immersed in fluid
Camargo, Luz Helena [1]; Quiñonez, Manuel [2]; Aya Baquero, Hugo [2].
[1] Universidad Distrital Francisco José Caldas; [2] Universidad Distrital Francisco José de Caldas.

PTH63
Electric polarizability of n-type InAs/GaAs asymmetric quantum ring
Gutiérrez, Willian; Mikhailov, Ilia; Gelvez, Rafael.
Universidad Industrial de Santander.

PTH64
Effects of N implantation on defect formation in ZnO nanowires
Stehr, Jan Eric [1]; Chen, Weimin [1]; Shen, Shaohua [2]; Buyanova, Irina [1].
[1] Linkoping University; [2] Xi'an Jiaotong University.

PTH65
Coherent phonon lasing in thermal quantum nanomachine
Karwat, Pawe? [1]; Reiter, D. E. [2]; Kuhn, Tilmann [2]; Hess, Ortwin [3].
[1] Wroc?aw University of Science and Technology; [2] Wilhelms-Universität Münster; [3] Imperial College London.

PTH66
Interface-engineered forming-free Dual Ion Beam Sputtered ZnO based memristive device
Kumar, Amitesh; Das, Mangal; Bhardwaj, Ritesh; Garg, Vivek; Khan, Md Arif; Kranti, Dr. Abhinav; Mukherjee, Dr. Shaibal.
INDIAN INSTITUTE OF TECHNOLOGY, INDORE.