

Batumi Shota Rustaveli State University

PROGRAM

of The Twelfth Japanese-Mediterranean Workshop
on Applied Electromagnetic Engineering for
Magnetic, Superconducting, Multifunctional and
Nano Materials

JAPMED'12

<http://www.japmed12.bsu.edu.ge/>



17-20 July, 2023, BSU, Batumi

**PROGRAM OF THE TWELFTH JAPANESE-MEDITERRANEAN
WORKSHOP ON APPLIED ELECTROMAGNETIC ENGINEERING FOR
MAGNETIC, SUPERCONDUCTING, MULTIFUNCTIONAL AND NANO
MATERIALS (JAPMED'12)**

MONDAY, JULY 17th

14:00 – 16:00 **Registration**

16:00 – 17:00 Opening Session

Chair: N. Gomidze

16:00 – 16:30 **Welcome Address:** Honorary Chairman of the JAPMED'12, Prof. A.G. Mamalis

Welcome Address: President of the JSAEM, Prof. Y. Ido

Welcome Address: Rector of the Batumi Shota Rustaveli State University, Prof. M. Khalvashi

Welcome Address: Government Chairman of the Ajara Autonomous Republic, Mr.T. Rizhvadze

Welcome Address: Minister of Education, Culture and Sport, Ms. M. Khajishvili

Welcome Address: President of European Academy of Arts and Sciences, Prof. P. Kervalishvili

16:30 – 17:00 **Plenary Presentation (108): Advanced Manufacturing: Principles and Industrial Sustainable Trends**

Academician Prof. Dr.-Ing. Dr.h.c. Prof.h.c. Athanasios G. Mamalis

Project Center for Nanotechnology and Advanced Engineering (PC-NAE), Athens, Greece

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17:00 – 17:30 Coffee Break/Lunch Break

17:30 – 19:00 Oral Session A: High Strain-Rate Phenomena / Impact to Shock Loading

Chair: J. Ramsden

17:30 – 18:00 **Keynote Presentation A1 (23): Explosion Syntheses of High Entropy Alloys in Fe-W-Al-Ti-Ni-B-C System**

N. Chikhradze^{1,2*}, D. Tsverava^{1,2}, M. Chikhradze^{2,3}, G. Janikashvili²

^{*1} G. Tsulukidze Mining Institute, 7, E. Mindeli Str., 0186, Tbilisi, Georgia, chikhradze@mining.org.ge

² Georgian Technical University, 77, Kostava Str., 0160, Tbilisi, Georgia, datotsverava@gmail.com

³ F. Tavadze Institute of Metallurgy and Materials Science, 0186, Tbilisi, Georgia, m.chikhradze@gtu.ge

18:00 – 18:20 **A2 (34): Preparation of Corrugated Tubes for High Efficiency Heat Exchangers**

I. Zador³, A. Mamalis², A. Szalay^{1*},

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^{3*} Puraset Water and Metall Solutions Ltd, Budapest, Hungary, andras.szalay@puraset.hu

18:20 – 18:40 **A3 (33): High Quality Splices for Superconductors**

A. Szalay^{1*}, A. Mamalis², I. Zador³

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² Project Center for Nanotechnology and Advanced Engineering, NCSR "Demokritos", Greece, agmamalis@yahoo.com

³ KOGAT Ltd, Budapest, Hungary istvan.zador@kogat.hu

18:40 – 19:00 **A4 (119) Algorithmic Foundations of Optimization Using Finite Element Modeling of High-Speed Grinding Technology in Application to 3D Micro-Level Models**

A. Mamalis¹, V. Fedorovich², D. Romashov^{2*}, Y. Ostroverkh²

¹ Project Center for Nanotechnology and Advanced Engineering, NCSR "Demokritos", Athens, Greece, a.mamalis@inn.demokritos.gr

² Department of Integrated Engineering Techniques named after M.F. Semko, National Technical University "Kharkov Polytechnic Institute", Kharkov, Ukraine, romashov86@ukr.net

19:00 – 19:20 **A5 (113): Computer Simulations of Static Stress-Strain States for Long-Length Pressurized Pipes with External Protective Thin Nanoengineered Coating under Nonuniform Temperature Fields**

I.Sh. Nevliudov¹, A.G. Mamalis², Yu.V. Romashov^{1,3}

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¹*Kharkiv National University of Radio Electronics, Ukraine, Kharkiv, igor.nevliudov@nure.ua*

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TUESDAY, JULY 18th

09:00 – 11:30 **Registration**

09:00 – 10:30 **Oral Session B: Electromagnetic Engineering**

Chair: R. Turmanidze

09:00 – 09:30 **Keynote Presentation B1 (26): Reduction of Iron Loss on Laminated Stator Cores by Secondary Current Heating Method**

Yuji Tsuchida

Division of Electrical and Electronic Engineering, Oita University, Japan, tsuchida@oita-u.ac.jp

09:30 – 09:50 **B2 (103): Low Carbon Steel as Magnetic Shielding For Electric Vehicles**

T. Damatopoulou¹, P. Svec², S. Angelopoulos¹, E. Hristoforou¹

¹ *Laboratory of Electronic Sensors, National TU of Athens, Zografou Campus, Athens 15780, Greece, damatat5@central.ntua.gr*

² *Institute of Physics, SAS, Dúbravská Cesta 9, 845 11 Bratislava, Slovak Republic, peter.svec@savba.sk*

09:50 – 10:10 **B3 (102): Optimizing QE of CCD by Modifying Black Comet Detector**

J. Shainidze*, N.Gomidze

Batumi Shota Rustaveli State University, Batumi, Georgia,

**jaba.shainidze@bsu.edu.ge*

gomidze@bsu.edu.ge

10:10 – 10:30 **B4 (41): Influence of Surface Roughness on the Amplitude of Giant Magnetoresistance Effect in Multilayered Thin Films**

[A Melikadze](#), L. Kalandadze, N. Gomidze*

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10:30– 11:00 Coffee Break

11:00 – 12:50 Oral Session C: Applications in Energy and Transportation

Chair: Y. Ido,

11:00 – 11:30 Keynote Presentation C1 (35): Magnetic Field between Polar Hemispheres: Remarks on the Dislocation of Zones of a Constant Gradient and Force Factor

A. Sandulyak, M. Polismakova, D. Sandulyak, A. Dwivedi*, C. Doumanidis, A. Sandulyak, V. Ershova.

¹*MIREA — Russian Technological University, Moscow, Russia*

^{*2}*Guangdong Technion-Israel Institute of Technology, Shantou, China, anand.dwivedi@gtiit.edu.cn*

11:30 – 11:50 C2 (45): Features of Magnetization of Ferromagnetic Composites: Role of Grain Chains on an Example of Granulated Media

D. Sandulyak¹, A Sandulyak¹, M. Polismakova¹, A. Sandulyak¹, I. Solovev¹, A.Dwivedi^{2*}, C. Doumanidis²

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11:50 – 12:10 C3 (60): Excitons and Biexcitons in Cylindrical Nanowires of Group II-IV Materials

Z. Machavariani^{1,3*}, R. Kezerashvili², T. Tchelidze¹

¹*Department of Exact and Natural Sciences, Tbilisi State University, 0179, Tbilisi, Georgia, zaal.machavariani@tsu.ge*

²*Physics Department, New York City College of technology, The City University of New York, Brooklyn, New York 11201, USA, rkezerashvili@citytech.cuny.edu*

³*Doctoral School, Kutaisi International University, Youth Avenue, 5th Lane, 4600 Kutaisi, Georgia, tchelidze@tsu.ge*

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12:10 – 12:30 **C4 (26): Can the Formation of Compensating Donors Be Suppressed in Modulated p-Doped Gallium Oxide Quantum Wells?**

T. Tchelidze^{1*}, Z. Machavariani^{1,2}, E. Chikoidze³

¹ *Department of Exact and Natural Sciences, Tbilisi State University, 0179, Tbilisi, Georgia** tchelidze@tsu.ge

² *Doctoral School, Kutaisi International University, Youth Avenue, 5th Lane, 4600 Kutaisi, Georgia,* zaal.machavariani@tsu.ge

³ *University Paris Saclay, Grp Etud Matiere Condensee GEMaC, UVSQ CNRS, 45 Ave des Etats Unis, F-78035 Versailles, France*

12:30 – 12:50 **C5 (100): Materials and Devices for Spin-Qubit Quantum Computers**

G. Kervalishvili, R. Vardapetian*

Georgian Technical University, Tbilisi, Georgia,

gkerval@gmail.com

European Centre for Knowledge and Technology Transfer Brussels, Belgium, rv.eurotex@gmail.com

12:50 – 13:30 **Lunch Break**

13:30 – 15:20 **Oral Session D: Sustainability: Principles and Applications**

Chair: Y. Tsuchida,

13:30 – 14:00 **Keynote Presentation D1 (105): An Information Theoretical Analysis of the Spirit of the Age**

J. J. Ramsden^{1*}, A. A. Mamali², N. T. Athanassoulis³

¹ *Faculty of Medicine and Health Sciences, The University of Buckingham, England,* jeremy.ramsden@buckingham.ac.uk

² *Cass Business School Alumni, Athens, Greece*

³ *Laboratory of Energy and Industrial Economics (LIEE), National Technical University of Athens, Greece*

14:00 – 14:20 **D2 (107): Health Hazards and Pollution Risk from Large Battery Energy Storage Systems**

J.J. Ramsden

Faculty of Medicine and Health Sciences, The University of Buckingham, England, jeremy.ramsden@buckingham.ac.uk

- 14:20 – 14:40 **D3 (109): Analysis of Possibilities the Current Situation for Using and Accumulating Green Energies in Georgia**
R.Turmanidze¹, N. Gomidze^{2*}, G.Popkhadze¹, L.Gomidze³
¹*Georgian Technical University, Tbilisi, Georgia, inform@gtu.ge*
^{2*}*Batumi Shota Rustaveli State University, Georgia, gomidze@bsu.edu.ge*
³*Department of Exact and Natural Sciences, Tbilisi State University, 0179, Tbilisi, Georgia*
- 14:40 – 15:00 **D4 (106): Discovering the Cause of Aerotoxic Syndrome: A Causal Calculus Approach**
J. J. Ramsden
Faculty of Medicine and Health Sciences, The University of Buckingham, England
jeremy.ramsden@buckingham.ac.uk
- 15:00 – 15:20 **D5 (111): An Overview of Life Cycle Assessment Criteria for Transportation Decision-Making**
N.T. Athanassoulis, A.Tsakanikas
Laboratory of Industrial & Energy Economics National Technical University of Athens,
nikos_athanasoulis@yahoo.gr
- 15:20 – 15:50 **Coffee Break**
- 15:50 – 18:30 Oral Session E: Composite, Ceramic and Magnetic Nanomaterials**
Chair: A. Dwivedi
- 15:50 – 16:20 **Keynote Presentation E1 (17): Effect of Nano Additives on the Mechanical Properties of Ceramic Matrix Composites (CMCs)**
A. Mamalis¹, E. Gevorkyan², M. Rucki³, V. Chishkala⁴, O. Morozova⁵
¹*Project Center for Nanotechnology and Advanced Engineering, NCSR, Athens, Greece, agmamalis@yahoo.com*
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⁵ *Ukrainian State University of Railway Transport, Kharkiv, Ukraine, oksanabakan2012@gmail.com*

- 16:20 – 16:40 **E2 (114): Effect of CrB₂ Reinforcement on the Mechanical Properties of Ceramic Matrix Composites (CMCs) and Metal Matrix Composites (MMCs)**
M. Rucki ¹, E. Gevorkyan^{2*}, V. Mechnik³, B. Ratov⁴, S. Muratova⁵
¹ *Kazimierz Pulaski University of Technology and Humanities in Radom, Radom, Poland, m.rucki@uthrad.pl*
² *University of Life Sciences in Lublin, Lublin, Poland, edsgev@gmail.com*
³ *Bakul Institute for Superhard Materials, National Academy of Sciences of Ukraine, Kyiv, Ukraine, vlad.me4nik@ukr.net*
⁴ *Satpayev University, Almaty, Kazakhstan, b.ratov@satbayev.university*
⁵ *Caspian University, Almaty, Kazakhstan, samal.muratova@cu.edu.kz*

- 16:40 – 17:00 **E3 (115): The effect of Al₂O₃ Nanoadditives on Structure of Materials Based on Zirconium Dioxide Nanopowders**
A. Mamalis ¹, E. Gevorkyan^{2,3}, O. Morozova ^{2*}, D. Sofronov ³, V.Nerybatskyi ²,
¹ *Project Center for Nanotechnology and Advanced Engineering, NCSR, Athens, Greece, agmamalis@yahoo.com*
² *Ukrainian State University of Railway Transport, Ukraine, cermet-u@mail.com,*
³ *SSI “Institute for Single Crystals” NAS of Ukraine, Ukraine, 19sofronov73@gmail.com, nerubatskyi@kart.edu.ua*

- 17:00 – 17:20 **E4 (12): Features of Magnetization of Ferromagnetic Composites: Role of Grain Chains on an Example of Granulated Media**
S. Petrosyan, A. Khachatryan
Institute of Radiophysics and Electronics, NAS of Armenia, Ashtarak, Armenia, stepan.petrosyan@rau.am, ashot.khachatryan@mail.ru

19:00 – 22:30 Conference Dinner

WEDNESDAY, JULY 19th

09:00 – 11:30 **Registration**

09:00 – 11:00 Oral Session F: Advanced Industrial Technologies

Chair: N. Chikhradze

09:00 – 09:30 **Keynote Presentation F1 (14): Thermal Conduction and Magnetic Properties of Magnetorheological Elastomers Dispersing Sendust Particles**

Y. Ido^{1,*}, Y. Hiroshima¹, Y. Iwamoto¹, Y. Hirota², S. Fujioka²

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² *Ferrotec Materials Technologies, Japan, hirota-yst@ft-mt.co.jp, fujioka-stm@ft-mt.co.jp*

09:30 – 09:50 **F2 (39): Rheological Properties of Thin-Film Permanent Magnet Elastomers in Stretch Deformation**

Y. Iwamoto^{1*}, T. Minakawa¹, Y. Ido¹, M. Kamezaki²

^{*1} *Department of Electrical and Mechanical Engineering, Nagoya Institute of Technology, Japan, iwamoto.yuhiro@nitech.ac.jp*

² *Department of Electrical Engineering and Information Systems, Graduate School of Engineering, The University of Tokyo, Japan*

09:50 – 10:10 **F3 (7): Alternative design of a high torque density two-phase brushless direct current motor**

S. Abareshi^{*}, J. Faiz, M. Ghods

School of Electrical and Computer Engineering, College of Engineering, University of Tehran, Tehran, Iran,

saeed.abareshi@ut.ac.ir, jfaiz@ut.ac.ir, ghods-mehrage@ut.ac.ir

10:10 – 10:30 **F4 (44): Fundamental Study of Haptic Sensor Utilizing Magnetic Compound Fluid Rubber Sensor for Investigation of Nuclear Facilities**

R. Ikeda¹, K. Shimada², H. Kikura³

¹ *Nuclear Engineering Course, Tokyo Institute of Technology, Japan, ikeda.r.ah@m.titech.ac.jp*

² *Faculty of Symbiotic Systems Sciences, Fukushima University, Japan, shimadakun@sss.fukushima-u.ac.jp*

³ *Laboratory for Zero-Carbon Energy, Tokyo Institute of Technology, Japan, kikura.h.aa@m.titech.ac.jp*

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10:30 – 10:50 **F5 (38): Experimental Study on Sealing Performance and Flow Characteristics of Magnetic Fluid in Extremely Tiny Clearance under Magnetic Field**

Y. Kato¹, M. Motozawa^{2*}, W. Rakpakdee², M. Fukuta²

¹ Graduate School of Integrated Science and Technology, Shizuoka University, Shizuoka, Japan

^{*2} Faculty of Engineering, Shizuoka University, Shizuoka, Japan, motozawa.masaaki@shizuoka.ac.jp

10:50 – 11:30 **Coffee Break**

11:30 – 13:00 **Oral Session G: Material Synthesis, Measurements and Characterization**

Chair: M.Motozawa

11:30 – 12:00 **Keynote Presentation G1 (108): The Concept of Obtaining Spintronic Nanostructures for Quantum Devices**

Paata J. Kervalishvili

Georgian Technical University, Tbilisi, Georgia,

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12:00 – 12:20 **G2 (110): A Comparative Study of Sol-Gel and Sintering Methods for the Synthesis of $BaxSr(1-x)TiO_3$ Piezoelectric Materials**

N. Motsi^{*}, S. Angelopoulos, E. Hristoforou

Laboratory of Electronic Sensors, National TU of Athens, Zografou Campus, Athens 15780, Greece, nefelimotsi@mail.ntua.gr

12:20 – 12:40 **G3 (9): Study of Silicon-Graphene Properties**

A. Bakhtiari^{1*}, T. Berberashvili¹, P. Kervalishvili¹, A. Bilbilashvili², Z. Kushitashvili²

^{*1} Georgian Technical University, Kostava str. 77, Tbilisi, Georgia, bakhtiari.habib@gmail.com

² Institute of Micro and Nanoelectronics, Ilia Chavchavadze Ave. 13, Tbilisi, Georgia

12:40 – 13:00 **G4 (10): Experimental Device for 2D Materials Preparation by Laser-Plasma Method**

A. Bakhtiari^{1*}, W. Maier², P. Kervalishvili¹

^{*1} *Georgian Technical University, Kostava str. 77, Tbilisi, Georgia,*
bakhtiari.habib@gmail.com

² *AE Solar GmbH, Messerschmittring 54, Königsbrunn, Germany*

13:00 – 14:00 Lunch Break

14:00 – 15:00 Poster Session (P)

Chair: Y. Ido, P. Kervalishvili, N.Gomidze

**P1 (15): Integrating IoT into Agricultural Operations
Towards the Industry 4.0 and Sustainability**

E. Symeonaki, H. Leligou, D. Tseles, T. Ganetsos, C. Drosos
*Dept. of Industrial Design and Production Engineering, University
of West Attica, Greece, dtsel@uniwa.gr*

**P2 (19): Development and Characteristics of Metal-
Polymer Laminates**

G. Baliashvili, T. Iashvili, S. Kvinikadze D. Tsverava , G.
Abashidze, A. Vanishvili*
*LEPL Grigol Tsulukidze Mining Institute., 7, E. Mindeli Str., 0186,
Tbilisi, Georgia, alexandre.vanishvili@gmail.com*

P3 (22): ZrO₂ Nanopowders as Fillers of Epoxy Polymers

T. Hryhorenkoa, Y. Kochergin, X. Meng
Harbin Institute of Technology, China
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**P4 (27): On the Convergence of the Solution of
Schrodinger Equation for Finite Difference Method**

D. Kobaidze¹, T. Gagnidze¹, T. Tchelidze¹, T. Davitashvili¹, H.
Meladze²

¹*Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia*

²*Muskhelishvili Institute of Computational Mathematics*

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P5 (29): Particle in Multi-Step Quantum Well

N. Basharuli,a, T. Tchelidze

Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia

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P6 (30): Solving 1D Stationary Schrodinger Equation Numerically

L. Burdiladze^{1*}, T. Gagnidze¹, T. Tchelidze¹, T. Davitashvili¹, H. Meladze²

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²*Muskhelishvili Institute of Computational Mathematics*

P7 (36): Modeling and Optimization of Properties of Ga2O3-Based Quantum Structures in Order to Achieve Hole Conductivity

T. Gagnidze^{1,2,3*}, D. Kobaidze¹, L. Burdiladze¹, N. Basharuli¹, E. Chikoidze⁴, T. Davitashvili¹, H. Meladze⁵, T. Tchelidze¹

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⁵*Muskhelishvili Institute of Computational Mathematics, Tbilisi, Georgia*

P8 (37): Proposal of a 3-D Stereolithography System Incorporating Magnetic Levitation Technique

T. Ohji^{*}, K. Nishi, J. Yui, K. Amei

Faculty of Engineering, University of Toyama, 3190 Gofuku, Toyama 930-8555, Japan, ohji@eng.u-toyama.ac.jp

P9 (104): To the Properties of Laser-Induced Plasma

D. Jakobia^{1*}, P. Kervalishvili², N. Gomidze¹

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²*Georgian Technical University, Kostava str. 77, Tbilisi, Georgia, paata.kervalishvili@gtu.ge*

P10 (112): Creation 3D Fluorescence Spectra of Wine

M. Khajishvili^{*}, N. Gomidze, I. Jabnidze, K. Makharadze, L. Kalandadze, O. Nakashidze

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P11 (118): Structural Properties of III-Nitrides Received by UV Stimulated Technology

Z.Kushitashvili*, A.Bibilashvili, A.Kurtanidze

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P12(16): Smart Energy Management in the Context of Industry 4.0

N. Kyrtsilas, E. Symeonaki, D. Tseles*, M. Papoutsidakis, C. Drosos
Dept. of Industrial Design and Production Engineering, University of West Attica, Greece, dtsel@uniwa.gr

P13 (120): On the effective dielectric permittivity of nanocomposite structures

Omar Nakashidze, Lali Kalandadze*, Nugzar Gomidze, Izolda Jabnidze

Department of Physics, Batumi Shota Rustaveli State University, Georgia, lali.kalandadze@bsu.edu.ge

15:00 – 19:00 Excursion: BSU – Mtsvane Konckhi – Tsikhisdziri - BSU / Conference Photos

THURSDAY, JULY 20th

09:00 – 10.50 Oral Session H: Superconductivity

Chair: P. Kervalishvili

09:00 – 09:30 Keynote Presentation H1 (32): Bulk MgB₂ and MT-YBCO for Superconducting Bearings Working in Liquid Hydrogen

T. Prikhna*, M. Eisterer, A. Mamalis³, V. Moshchil¹, B. Büchner⁴, D. Lindackers⁴, X. Obradors⁵, T. Puig⁵, F. Werfel⁶, U. Flögel – Delor⁶, V. Sverdun¹, A. Vakaliuk⁶, S. Ponomarov⁷, P. Sass⁸

¹*V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine,* prikhna@ukr.net

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³*Project Centre for Nanotechnology and Advanced Engineering, NCSR “Demokritos”, Athens, Greece*

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⁴*Leibniz-Institut für Festkörper- und Werkstoffforschung Dresden e. V., Helmholtzstraße 20, 01069 Dresden, Germany*

⁵*Institute of Materials Science of Barcelona (ICMAB), CSIC, Spain*

⁶*Adelwitz Technologiezentrum GmbH (ATZ), Naundorfer Str. 29 04860 Torgau, Germany*

⁷*Institute of Semiconductor Physics of the National Academy of Sciences of Ukraine, 41, Nauky Ave., Kyiv 03028, Ukraine*

⁸*SciDre – Scientific Instruments Dresden GmbH, Gutzkowstrasser 30, Dresden 01069, Germany*

09:30 – 09:50

H2 (24): Production of Homogeneous Composite Press-Powders Based on ZrB₂ and SiC for UHTCs

G. Bokuchava¹, E. Sanaia¹, Z. Mestvirishvili^{1*}, N. Jalagonia¹, T. Prikhna², T. Kuchukhidze¹, N. Darakhvelidze¹

¹*Ilia Vekua Sukhumi Institute of Physics and Technology. 7 Mindeli Str., Tbilisi, Georgia, zviad.mst@gmail.com,*

²*V.Bakul Institute for Superhard materials, 2, Avtozavodskaya Str., Kiev, Ukraina*

09:50 – 10:10

H3 (101): Functional Superconductor-Ferromagnet Nanostructures for Superconducting Electronics

A. Sidorenko^{1*}, V. Boian¹, E. Antropov¹, Yu. Savva², A. Lomakin², A. Vakhrushev³

¹*Institute of Electronic Engineering and Nanotechnologies named after D. Ghitu, Moldova, MD-2028, Chisinau, Academiei 3/3, sidorenko.anatoli@gmail.com*

²*Orel State University named after I.S. Turgenev, Russia, 302026, Orel, Komsomolskaya, 95*

³*Udmurt Federal Research Center, Ural Branch of the Russian Academy of Sciences, ul. T. Baramzina, 34*

10:10 – 10:30

H4 (31): Diffusion-Driven Local Ordering in Pt/Co Bilayers

R. Pedan^{*}, P. Makushko, O. Dubikovskiy, A. Bodnaruk, A. Burmak, D. Makarov, I. Vladymyrskyi

¹*Igor Sikorsky Kyiv Polytechnic Institute, Prospect Peremogy 37, Kyiv 03056, Ukraine, roman1pedan@gmail.com*

²*Helmholtz-Zentrum Dresden-Rossendorf e.V., Institute of Ion Beam Physics and Materials Research, Bautzner Landstrasse 400, 01328 Dresden, Germany.*

³ *V. Lashkaryov Institute of Semiconductor Physics, National Academy of Sciences of Ukraine, Prospect Nauky 41, Kyiv 03680, Ukraine.*

⁴ *Institute of Physics, National Academy of Sciences of Ukraine, Prospect Nauky 46, Kyiv 03028, Ukraine.*

10:30 – 11:00 Coffee Break

11:00 – 12:00 Closing Session

Chair: A.G. Mamalis

Closing Remarks

Paper Submission

Best Poster

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Batumi Shota Rustaveli State University

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	10	11	12	13	14	15
16	17 Registration, Opening session and Oral sessions	18 Registration, Oral sessions, Conference Dinner	19 Registration, Oral sessions, Poster session Excursion	20 Oral session, Closing session	21	22
23	24	25	26	27	28	29