

FOURTH PLENARY SESSION

Thursday, September 13, 2007

Session IV: 09⁰⁰-12³⁰

Chairmen: E. Traversa, J. Czernuszka and M. Plavšić

09⁰⁰-9³⁰ **THE FIRST INORGANIC NANOBUDS AND PEA-PODS: WS₂ AND MoS₂ FULLERENES GROWN BY DIFFUSION PROCESS**

M. Remškar, M. Viršek, A. Mrzel, A. Jesih
Jozef Stefan Institute, Ljubljana, Slovenia

09³⁰-10⁰⁰ **PROCESSING AND CHARACTERIZATION OF MAGNETIC NANOSTRUCTURED MATERIALS**

J. Wittig
Vanderbilt University, Nashville, Tennessee USA

10⁰⁰-10³⁰ **SYNTHESIS AND PROPERTIES OF METAL-CARBON NANOCOMPOSITES. SOME PERSPECTIVE APPLICATIONS IN CATALYSTS CHEMISTRY AND MEDICINE (PHOTO-THERMAL THERAPY OF TUMORS)**

A.Ye.Yermakov¹, M.A.Uimin¹, A.A.Mysik¹, E.S.Lokteva², A.A. Stratonnikov³
¹*Institute of Metal Physics, Ural Branch of RAS, Ekaterinburg, Russia*
²*M.V. Lomonosov Moscow State University, Moscow, Russia*
³*Natural Science Center of General Physics Institute of RAS, Moscow, Russia*

Break: 10³⁰-11⁰⁰

11⁰⁰-11³⁰ **Fe₃O₄ NANOPARTICLES FOR BIOMEDICAL APPLICATIONS: THE ROLE OF THE SURFACTANT**

P. Guardia¹, N. Pérez¹, A. G. Roca², O. Iglesias¹, M. P. Morales², C. J. Serna², A. Labarta¹, X. Batlle¹
¹*Departament de Física Fonamental and Institut de Nanociència i Nanotecnologia, Universitat de Barcelona, Martí i Franqués 1, Barcelona, Catalonia, Spain,*
²*Instituto de Ciencia de Materiales de Madrid, CSIC, Sor Juana Inés de la Cruz, Madrid, Spain*

11³⁰-12⁰⁰ **3-D SCAFFOLDS FOR 3-D TISSUE ENGINEERING**

J. Czernuszka
Department of Materials Sciences, Oxford University, Oxford, United Kingdom

12⁰⁰-12³⁰ BIOACTIVE PEPTIDE DESIGN USING THE RESONANT RECOGNITION MODEL

I. Čosić, E. Pirogova, J. Fang, V. Vojisavljević
School of Electrical and Computer Engineering, RMIT University, Melbourne, Australia, Australian Centre for Radiofrequency Bioeffects Research (ACRBR)

Break: 12³⁰-15⁰⁰

SYMPOSIUM C: NANOSTRUCTURED MATERIALS

Session I: 15⁰⁰-19⁰⁰

Chairmen: X. Batlle, M. Zlatanović and J. Nedeljković

15⁰⁰-15¹⁵ ATOMIC RESOLUTION HAADF-STEM: APPLICATIONS IN MATERIALS SCIENCE

M. Čeh¹, S. Šturm¹, M. Shiojiri²
¹Institute Jožef Stefan, Ljubljana, Slovenia, ²Kyoto Institute of Technology, Kyoto, Japan

15¹⁵-15³⁰ NANOCATALYST ENGINEERING ON EXTENDED AND NANOSCALE SURFACES

V. Stamenković, D. Strmcnik, D. Tripković, D. van der Vliet, H. You, N.M. Marković
Argonne National Laboratory, Materials Science Division, Argonne, IL, USA

15³⁰-15⁴⁵ PREPARATION OF AMINE-FREE SILICA-COATED AgI NANOPARTICLES WITH A MODIFIED STÖBER METHOD

Y. Kobayashi^{1,2}, N. Shimizu¹, M. Takeda³, N. Ohuchi³, A. Kasuya⁴, M. Konno¹
¹Department of Chemical Engineering, Graduate School of Engineering, Tohoku University, Aoba, Aramaki-aza, Aoba-ku, Sendai, Japan, ²Present address: Department of Biomolecular Functional Engineering, College of Engineering, Ibaraki University, Naka-narusawa-cho, Hitachi, Ibaraki, Japan, ³Division of Surgical Oncology, Graduate School of Medicine, Tohoku University, Seiryomachi, Aoba-ku, Sendai, Japan, ⁴Center for Interdisciplinary Research, Tohoku University, Aoba, Aramaki-aza, Aoba-ku, Sendai, Japan

15⁴⁵-16⁰⁰ CHARACTERIZATION OF NANOPARTICLES BY FLUORESCENCE CORRELATION SPECTROSCOPY

M. Štěpánek¹, J. Humpolíčková², T. Kral²
¹Department of Physical and Macromolecular Chemistry, Charles University, Prague, Czech Republic, ²Institute of Physical Chemistry, Academy of Sciences of the Czech Republic, Prague, Czech Republic

- 16⁰⁰-16¹⁵ **MULTILAYER POLYMERIC NANOPARTICLES BASED ON SPECIFIC INTERACTIONS IN SOLUTION: LIGHT SCATTERING AND ATOMIC FORCE MICROSCOPY STUDY**
P. Matějčiček¹, M. Uchman¹, J. Lokajová¹, M. Špírková², K. Procházka¹
¹*Department of Physical and Macromolecular Chemistry, Charles University, Prague, Czech Republic,* ²*Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Prague, Czech Republic*
- 16¹⁵-16³⁰ **POLYURETHANE NETWORKS WITH INORGANIC NANO-BUILDING BLOCKS**
A. Strachota¹, B. Strachotová¹, M. Špírková¹, F. Ribot²
¹*Department of Polymer Networks and Mechanical Properties, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Praha, Czech Republic,* ²*Institute Laboratoire de Chimie de la Matière Condensée, UMR CNRS 7574, Université Pierre et Marie Curie, Paris, France*
- 16³⁰-16⁴⁵ **EPITAXIAL GROWTH BY MONOLAYER RESTRICTED GALVANIC DISPLACEMENT**
R. Vasilic¹, N. Dimitrov²
¹*Laboratory for Atomic Physics, Institute of Nuclear Sciences Vinca, Belgrade, Serbia,* ²*Materials Science and Engineering Program, SUNY Binghamton, Binghamton, NY, USA*
- 16⁴⁵-17⁰⁰ **THIN SEMI-CONDUCTOR FILMS FORMED BY PULSED ION DEPOSITION**
M.S. Saltymakov¹, G.E. Remnev¹, I.V. Ivonin², V.I. Yurchenko³, E.P. Nayden⁴, V.A. Novikov²
¹*High Voltage Research Institute, Tomsk, Russia,* ²*Tomsk State University, Tomsk, Russia,* ³*Federal Researches Institute of Semiconductor Devices, Tomsk, Russia,* ⁴*Siberian Physical-Technical Institute, Tomsk, Russia*
- Break:** 17⁰⁰-17³⁰
- 17³⁰-17⁴⁵ **LASER-INDUCED CHANGE IN THE REFRACTIVE INDEX IN THE ORGANIC SYSTEMS DOPED WITH NANOOBJECTS**
N.V. Kamanina¹, D.P. Uskoković²
¹*Vavilov State Optical Institute, St. Petersburg, Russia;* ²*Institute of Technical Sciences of the SASA, Belgrade, Serbia*
- 17⁴⁵-18⁰⁰ **RAMAN SPECTROSCOPY METHOD FOR DETERMINATION OF PARTICLE SIZE DISTRIBUTION IN ANATASE TiO₂ NANOPOWDERS**

M.J. Šćepanović, M.U. Grujić-Brojčin, Z.D. Dohčević-Mitrović, S. Aškračić, R. Kostić, Z.V. Popović
Center for Solid State Physics and New Materials, Institute of Physics, Belgrade, Serbia

18⁰⁰-18¹⁵ LUMINESCENT PROPERTIES OF EUROPIUM DOPED YTTRIUM AND GADOLINIUM SESQUIOXIDE PREPARED USING POLYETHYLENE GLYCOL ASSISTED COMBUSTION METHOD

R. Krsmanović, Ž. Andrić, M.D. Dramićanin
Institute of Nuclear Sciences "Vinca", Belgrade, Serbia

18¹⁵-18³⁰ SYNTHESIS AND CHARACTERIZATION OF HIGH-QUALITY ORGANIC BASED MAGNETIC FLUIDS

A. Drmota¹, A. Košak², A. Žnidaršič^{1,2}
¹*Nanotesla Institute, KOLEKTOR GROUP, Ljubljana, Slovenia*
²*Iskra-Feriti d.o.o., KOLEKTOR GROUP, Ljubljana, Slovenia*

18³⁰-18⁴⁵ HIGH PRESSURE SINTERING OF NANOCRYSTALLINE TITANIUM CARBONITRIDE

V.S. Urbanovich¹, G.P. Okatova², K.I. Yanushkevich¹, G.K. Zubovich¹, L.P. Stafetski³
¹*Joint Institute of Solid State and Semiconductor Physics, National Academy of Sciences of Belarus, Minsk, Belarus,* ²*Belarusian State Technological University, Minsk, Belarus,* ³*Joint-stock Neomat Co, Salaspils, Latvia*

18⁴⁵-19⁰⁰ Fe-C BULK NANOCOMPOSITES PREPARED BY MECHANICAL ALLOYING AND MAGNETIC PULSE COMPACTION

E. Yelsukov¹, V. Ivanov², S. Zayatz², S. Lomayeva¹
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²*Institute of Electrophysics UrB RAS, Ekaterinburg, Russia*

POSTER SESSION III

Thursday, September 13, 2007, 20³⁰-22⁰⁰

SYMPOSIUM C: NANOSTRUCTURED MATERIALS

P.S.C.1. SIZE DEPENDENT INTRABAND ABSORPTION IN P-TYPE DOPED SELF-ASSEMBLED NANODOTS

M. Ćosić¹, M. Tadić^{1,2}, F.M. Peeters¹
¹*Department of Physics, University of Antwerp, Belgium*
²*Faculty of Electrical Engineering, University of Belgrade, Belgrade, Serbia*

- P.S.C.2. **VIBRATIONAL SPECTROSCOPY OF CdTe/ZnTe QUANTUM DOT SUPERLATTICES**
M. Romčević¹, N. Romčević¹, A. Milutinović¹, R. Kostić¹, G. Karczewski², R. Galazka², A. Boukenter³, F. Goutaland³
¹*Institute of Physics, Belgrade, Serbia*, ²*Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*, ³*Saint-Etienne University, Saint-Etienne, France*
- P.S.C.3. **ELECTRON-ELECTRON SCATTERING IN THE ACTIVE REGION OF GaAs/AlGaAs QUANTUM CASCADE LASER IN MAGNETIC FIELD**
B. Novaković¹, J. Radovanović², A. Mirčetić², V. Milanović², Z. Ikončić³, D. Indjin³
¹*Institute of Physics, Belgrade, Serbia*, ²*Faculty of Electrical Engineering, Belgrade, Serbia*, ³*Institute of Microwaves and Photonics, School of Electronic and Electrical Engineering, University of Leeds, Leeds, UK*
- P.S.C.4. **EELS/HRTEM CHARACTERIZATION OF PHASES OBTAINED DURING THE HYDROTHERMAL SYNTHESIS OF CaTiO₃**
S. Šturm, B. Jančar, I. Bračko
Jozef Stefan Institute, Ljubljana, Slovenia
- P.S.C.5. **SYNTHESIS OF CdSe/MESOPOROUS SiO₂ COMPOSITES WITH NARROW PARTICLE SIZE DISTRIBUTION**
I.V. Kolesnik, D.I. Petukhov, A.A. Eliseev, A.V. Lukashin, Yu.D. Tretyakov
Department of Material Science, Moscow State University, Moscow, Russia
- P.S.C.6. **SYNTHESIS AND CHARACTERIZATION OF BaTiO₃ NANORODS**
K. Žagar, S. Šturm, M. Čeh
Jozef Stefan Institute, Ljubljana, Slovenia
- P.S.C.7. **THE W₁₈O₄₉ NANOWIRES USED FOR SYNTHESIS OF THE WS₂ NANOTUBES**
M. Viršek¹, M. Remškar¹, A. Jesih¹, J. Jelenc²
¹*Jozef Stefan Institute, Ljubljana, Slovenia*, ²*Faculty of Mathematics and Physics, Department of Physics, University in Ljubljana, Slovenia*
- P.S.C.8. **SCANNING PROBE MICROSCOPY OF ATOMIC AND NANO STRUCTURES**
A. Beltaos¹, R. Gajić¹, G. Isić¹, Dj. Jovanović¹, B. Novaković¹, N. Paunović¹, Z.V. Popović¹, M. Radović¹, K. Winkler²
¹*Institute of Physics, Belgrade, Serbia*, ²*Omicron Nanotechnology GmbH, Taunusstein, Germany*
- P.S.C.9. **SYNTHESIS AND CHARACTERIZATION OF SHAPED ZnS NANOCRYSTALS IN WATER IN OIL MICROEMULSIONS**

D.J. Jovanović, I.Lj. Validžić, I.A. Janković, N. Bibić, J.M. Nedeljković
Vinča Institute of Nuclear Sciences, Belgrade, Serbia

P.S.C.10. LOW TEMPERATURE SYNTHESIS OF DISODIUM DIMOLYBDATE

D.J. Jovanović, I.Lj. Validžić, I.A. Janković, M. Mitrić, J.M. Nedeljković
Vinča Institute of Nuclear Sciences, Belgrade, Serbia

**P.S.C.11. RADIOLYTIC SYNTHESIS AND CHARACTERIZATION OF PVA
HIDROGEL –Au NANOCOMPOSITES**

A. Krklješ, M. Marinović-Cincović, Z. Kačarević-Popović, J.M. Nedeljković
Vinča Institute of Nuclear Science, Belgrade, Serbia

**P.S.C.12. CHARACTERIZATION OF Au NANOPARTICLES DISPERSED IN
WATER AND POLYMER MATRIX**

V.V. Vodnik, Z.V. Šaponjić, N.D. Abazović, M.I. Čomor, J.M. Nedeljković
Vinča Institute of Nuclear Sciences, Belgrade, Serbia

P.S.C.13. NANOSIZED SILICALITE-1 CRYSTALLIZATION – INFLUENCE OF TPA⁺

O.A. Kovačević¹, B.T. Kovačević¹, D. Arandjelović¹, K. Andjelković³, V. Dondur²,
Ž.Lj. Tešić³

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²*Faculty of Physical Chemistry, University of Belgrade, Serbia*

³*Faculty of Chemistry, University of Belgrade, Serbia*

**P.S.C.14. INVESTIGATION OF NANOSIZED SILICALITE-1 BY FTIR
SPECTROSCOPY**

B.T. Kovačević¹, O.A. Kovačević¹, D. Arandjelović, L. Pezo¹, V. Dondur², Ž.Lj.
Tešić³

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**P.S.C.15. SYNTHESIS AND CHARACTERIZATION OF SILVER NANOPARTICLES
AND COMPLEX IT'S WITH LYSINE AND ANTIBODY OF PSA AND
THEIR APPLICATION IN PRODUCING DIAGNOSTIC PROSTATE
CANCER KIT**

D. Zare³, A. Akbarzadeh¹, B. Mohajerani², D. Norouzian¹, M. Atyabi¹, M.R.
Mehrabi¹, A. Farhangi¹, H. Ansari¹, M. Mortazavi¹, Z. Saffari¹, M. Shafiei¹

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²Chemistry & Petrochemical Research Institute, Research Institute of Petroleum Industry (RIPI), Tehran, Iran, ³Department of Chemistry, University of Isfahan, Isfahan, Iran

P.S.C.16. CHARACTERIZATION OF Eu-DOPED Zn₂SiO₄ POWDERS OBTAINED BY POLYMER INDUCED SOL-GEL SYNTHESIS

Ž. Andrić¹, R. Krsmanović¹, M. Mitrić¹, I. Zeković¹, Lj. Djačanin², M.D. Dramićanin¹

¹Institute of nuclear sciences "Vinča", Belgrade, Serbia

²Department of Physics, University of Novi Sad, Novi Sad, Serbia

P.S.C.17. SYNTHESIS AND STRUCTURE OF FERRITE POLYMER NANOCOMPOSITES

B. Pilić, M. Maletin, V. Srdić

Faculty of Technology, Novi Sad, Srbija

P.S.C.18. STUDY OF STRUCTURAL AND OPTICAL BEHAVIORS OF TiO₂:Eu, Pd THIN FILMS

D. Kaczmarek, J. Domaradzki, E.L. Prociow, A. Borkowska

Faculty of Microsystem Electronics and Photonics, Wrocław University of Technology, Wrocław, Poland

P.S.C.19. TEMPERATURE DEPENDENCE OF OXYGEN REDUCTION KINETICS ON CARBON SUPPORTED Pt NANOPARTICLES

N.R. Elezović¹, B.M. Babić², N.V. Krstajić³, S.Lj. Gojković³, Lj.M. Vračar³

¹Center for Multidisciplinary Studies, University of Belgrade, Belgrade, Serbia

²Vinča Institute of Nuclear Sciences, Belgrade, Serbia

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P.S.C.20. SYNTHESIS AND PROPERTIES OF POLYSTYRENE-CO-MALEIC ACID/Cd_{1-x}Mn_xS NANOCOMPOSITES

D. Milivojević, B. Babić-Stojić, V. Djoković, J. Blanuša

Vinca Institute of Nuclear Sciences, Belgrade, Serbia

P.S.C.21. STRUCTURAL PROPERTIES OF EUROPIUM-DOPED YTTRIA OBTAINED VIA AEROSOL SYNTHESIS

K. Marinković¹, M.E. Rabanal², L.S. Gomez², I. Martin², L. Mančić¹, O. Milošević¹

¹Institute of Technical Sciences of Serbian Academy of Sciences and Arts, Belgrade, Serbia, ²Universidad Carlos III de Madrid, Leganes, Madrid, Spain

P.S.C.22. OPTICAL AND ELECTRICAL PROPERTIES OF INDIUM DOPED NANOCRYSTAL ZINC OXIDE PREPARED BY SPRAY PYROLYSIS METHOD

A. Tanuševski¹, M. Ristova¹, V. Georgieva²

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"Sts. Cyril & Methodius" University, Skopje, Macedonia*

- P.S.C.23. THE INFLUENCE OF THE CONCENTRATION AND KIND OF
MODIFICATION OF MONTMORILLONITE ON PROPERTIES OF
NANOCOMPOSITE COATINGS**
M. Špírková, A. Strachota, J. Brus, B. Strachotová, M. Urbanová
Institute of Macromolecular Chemistry ASCR, v.v.i., Prague, Czech Republic
- P.S.C.24. STRUCTURE PARTICULATES OF NANOSTRUCTURED CONDENSATES
OF QUASIBINARY**
O. Sobol¹, L. Ribic², L. Kunytska³
*¹National Technical University «Kharkov Polytechnical Institute», Kharkov,
Ukraine, ²Technical Faculty, Čačak, Serbia, ³Institute of Surface Chemistry of NAS
of Ukraine, Kiev, Ukraine*
- P.S.C.25. CORRELATION BETWEEN THE CHANGE OF ELECTRON DENSITY
STATES ON THE FERMI LEVEL AND THE RELATIVE CHANGE OF THE
MAGNETIC PERMEABILITY OF THE Fe_{.81}B₁₃Si₄C₂ AMORPHOUS ALLOY**
A. Maričić¹, O. Aleksić², N. Mitrović¹, D.M. Minić³
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²Center for multidisciplinary studies of the University of Belgrade, Belgrade, Serbia
³Faculty of Physical Chemistry, University of Belgrade, Belgrade, Serbia*

SYMPOSIUM D: COMPOSITES

P.S.D.1. SYNTHESIS AND MECHANICAL PROPERTIES OF BIOMORPHIC C/SiC COMPOSITES

I. Djordjević, B. Babić, D. Sekulić, B. Matović
Institute of Nuclear Sciences Vinca, Belgrade

P.S.D.2. DETERMINATIONS OF MECHANICAL PROPERTIES OF PARTIALLY CARBONIZED CARBON FIBRES AND THEIR CARBON-CARBON COMPOSITES

Lj. Milovanović, D. Sekulić, B. Kaludjerović
Institute of Nuclear Science «Vinča», Belgrade, Serbia

P.S.D.3. THE INFLUENCE OF CARBON BLACK AND SILICA FILLER ON THE PROPERTIES OF ACRYLONITRILE-BUTADIENE/ETHYLENE-PROPYLENE-ETHYLIDENENORBORNENE RUBBER BLENDS

V. Jovanović¹, J. Budinski-Simendić², S. Samardžija-Jovanović¹, G. Marković³, S. Konstantinović⁴

¹Faculty of Science, University of Pristina, Kosovska Mitrovica, Serbia, ²University of Novi Sad, Faculty of Technology, Serbia, ³Tigar, Pirot, Serbia, ⁴Faculty of Technology, Leskovac, Serbia

P.S.D.4. THE INFLUENCE OF CARBON BLACK AND WOOD FLOUR ON HIGH ENERGY RADIATION RESISTANCE OF COMPOSITES BASED ON NR/CSM RUBBER BLEND

G. Marković¹, B. Radovanović², M. Marinović-Cincović³, J. Budinski-Simendić⁴

¹Tigar, Pirot, ²Faculty of Science, Niš, ³Institute of Nuclear Science Vinča, Belgrade, ⁴Faculty of Technology, Novi Sad, Serbia

P.S.D.5. POSSIBILITIES OF APPLICATION OF CARBON STEEL-SiC CAST IN CARBIDE COMPOSITES AS WEAR RESISTANCE MATERIAL

D. Čikara¹, D. Kalaba¹, Z. Vasić¹, D. Čikara²

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²Faculty of Technology and Metallurgy, University of Belgrade, Serbia

P.S.D.6. COMPUTER MODEL OF HEAT AND MASS TRANSFER DURING HEAT TREATMENT OF WOOD

L. Pezo¹, S. Stanojlović¹, D. Majstorović¹, B. Tomić-Tucaković¹, D. Debeljković²

¹Eng. Dept. Holding Institute of General and Physical Chemistry, Belgrade, Serbia

²Faculty of Mechanical Engineering, Belgrade, Serbia

P.S.D.7. MODELLING OF AIRFLOW THROUGH A WOOD-DRYING KILN

L. Pezo¹, S. Stanojlović¹, D. Majstorović¹, B. Tomić-Tucaković¹, D. Debeljković²
¹Eng. Dept. Holding Institute of General and Physical Chemistry, Belgrade, Serbia
²Faculty of Mechanical Engineering, Belgrade, Serbia

- P.S.D.8. EXPERIMENTAL INVESTIGATION OF A SOLAR DRYER WITH NATURAL CONVECTIVE HEAT FLOW**
L. Pezo¹, S. Stanojlović¹, D. Majstorović¹, B. Tomić-Tucaković¹, D. Debeljković²
¹Eng. Dept. Holding Institute of General and Physical Chemistry, Belgrade, Serbia
²Faculty of Mechanical Engineering, Belgrade, Serbia
- P.S.D.9. MODELLING OF FRICTION PAIR CONTACT CHARACTERISTICS BY MEANS OF ARTIFICIAL NEURAL NETWORKS**
D. Aleksendrić, I. Balać, Č. Duboka
Faculty of Mechanical Engineering, University of Belgrade, Serbia
- P.S.D.10. NONWOVEN GEOTEXTILE COMPOSITES WITH BENTONITE**
J. Dostanić¹, A. Milutinović-Nikolić¹, V. Rizmanoski¹, S. Lukić², D. Jovanović¹
¹Institute of Chemistry, Technology and Metallurgy-Department of Catalysis and Chemical Engineering, Belgrade, Serbia
²Faculty of Technology and Metallurgy, Belgrade, Serbia
- P.S.D.11. ELECTRODEPOSITION OF NIMO ALLOY COATINGS AND THEIR CHARACTERIZATION AS CATHODES FOR HYDROGEN EVOLUTION IN SODIUM HYDROXIDE SOLUTION**
Lj. Gajić-Krstajić¹, N.V. Krstajić², V.D. Jović³, B.M. Jović³,
¹Institute of Technical Sciences SASA, Belgrade, Serbia
²Faculty of Technology and Metallurgy University of Belgrade, Belgrade, Serbia
³Center for Multidisciplinary Studies University of Belgrade, Belgrade, Serbia
- P.S.D.12. AN AUSTEMPERING STUDY OF DUCTILE IRON ALLOYED WITH COPPER AND NICKEL**
O. Erić¹, D. Rajnović², L. Sidjanin²
¹Institute "Kirilo Savic", Beograd, Serbia
²University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia
- P.S.D.13. APPLICATION ON DESIGN AND CONSTRUCTION OF GLASS REINFORCED PLASTIC BOAT**
L. Gusha
Technological University "Ismail Qemali", Marine Faculty, Naval Engineering Department, Vlora, Albania
- P.S.D.14. APPLICATIONS OF REPRODUCTION METHOD WITH SOLDERING OF MASSIVE DETAILS IN ALBANIAN SEA PORTS**
V. Kasemi

*Technological University "Ismael Qemali", Naval Faculty, Naval Engineering
Department, Vlora, Albania*

**P.S.D.15. RELIABILITY ASSESSMENT OF A BI-MATERIAL WEDGE: STRAIN
ENERGY DENSITY APPROACH**

J. Klusák, Z. Knésl

Institute of Physics of Materials AS CR, v. v. i., Brno, Czech Republic

SYMPOSIUM E: BIOMATERIALS

- P.S.E.1. MECHANOCHEMICAL SYNTHESIS OF ANTIMICROBIAL MATERIALS BASED ON Ag-APATITES**
V. Stanić¹, M. Mitrić¹, Č. Jovalekić², S. Raičević¹
¹*Vinča Institute of Nuclear Sciences, Belgrade, Serbia,* ²*Center for Multidisciplinary Studies, University of Belgrade, Belgrade, Serbia*
- P.S.E.2. SONOCHEMICAL PREPARATION OF HYDROXYAPATITE / POLY (DL-LACTIDE-CO-GLYCOLIDE) COMPOSITE**
M. Jevtić¹, M. Mitrić², N. Ignjatović¹, D. Uskoković¹
¹*Institute of Technical Sciences of Serbian Academy of Sciences and Arts, Belgrade, Serbia,* ²*Institute of Nuclear Science "Vinca", Belgrade, Serbia*
- P.S.E.3. pH SENSITIVE HYDROGELS BASED ON METHACRYLATES**
M. Mičić¹, S. Tomić², J. Filipović², D. Djokić¹, E. Suljovrujić¹
¹*Vinča Institute of Nuclear Sciences, Belgrade, Serbia*
²*Faculty of Technology and Metallurgy, Belgrade University, Belgrade, Serbia*
- P.S.E.4. SYNTHESIS AND CHARACTERIZATION OF Cu(II), Cd(II), Pt(II) AND Pd(II) COMPLEXES WITH CONDENSATION DERIVATIVE OF PYRIDINE-2-CARBOXALDEHYDE AND ETHYL HYDRAZINOACETATE**
K. Andjelković¹, N. Filipović², T. Todorović¹, D. Jovanović³, S. Tufegdžić⁴, D. Sladić¹
¹*Faculty of Chemistry, University of Belgrade, Serbia,* ²*Faculty of Agriculture, University of Belgrade, Serbia,* ³*Faculty of Veterinary Medicine, University of Belgrade, Serbia,* ⁴*Institute of Chemistry, Technology and Metallurgy, Belgrade, Serbia*
- P.S.E.5. IN VITRO CYTOTOXIC ACTIVITY OF WATER-SOLUBLE CARBOXYFULLERENES DERIVATIVES**
S. Šolajić¹, V. Bogdanović¹, I. Ičević², G. Bogdanović¹, A. Djordjević²
¹*Institute of Oncology Sremska Kamenica, Experimental Oncology Department, Sremska Kamenica, Serbia,* ²*Department of Chemistry, Faculty of Science, University of Novi Sad, Novi Sad, Serbia*
- P.S.E.6. BIOMOLECULAR-TISSUE CONFORMATION AND ELECTRICAL PROPERTIES CHANGES: BASE FOR EARLY DIAGNOSIS OF SKIN CANCER AND MELANOMA**
L. Matija¹, Dj. Koruga¹, J. Bandić³, Ž. Ratkaj¹, D. Dobrasavljević²
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- P.S.E.7. MEDICINE APPLICATION OF LIQUID CRYSTAL AND FULLERENE-DOPED MATERIALS**
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- P.S.E.8. FLUORIDE CONTENT, RECHARGE ABILITY AND REMINERALISATION POTENTIAL OF GLASS-IONOMER CEMENT**
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- P.S.E.9. PDLLA MICROPARTICLES CONTAINING BSA: EFFECT OF FORMULATION VARIABLES ON SIZE DISTRIBUTION**
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- P.S.E.10. NEURAL MODELLING OF PLLA POLYMER IN HA_p/PLLA BIOCOSMETIC MATERIAL BEHAVIOUR DURING NANOINDENTATION**
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- P.S.E.11. IMMOBILIZATION OF SACCHAROMYCES ELLIPSOIDEUS CELLS FOR BIOETHANOL PRODUCTION**
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- P.S.E.12. INVESTIGATION OF ANTIMICROBIAL ACTIVITY OF ESSENTIAL OILS AND MICROBAL METABOLITS FROM LACTIC ACID BACTERIA FOR IMPREGNATION IN MEDICAL TEXTILE**
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- P.S.E.13. SURFACE MODIFICATION AND CHARACTERIZATION OF METHACRYLATE POLYMER NETWORKS FOR TISSUE ENGINEERING**
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- P.S.E.14. CHROMATOGRAPHIC STATIONARY PHASES FOR SEPARATION OF BIOACTIVE COMPOUNDS - CORRELATION OF MORPHOLOGY AND SEPARATION PROPERTIES**
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- P.S.E.15. THE INFLUENCE OF THE STERILIZATION PROCESS BY GAMMA RAYS IRRADIATION ON THE ACTIVATED CARBON CLOTH PROPERTIES AS A DRESSING MATERIAL**
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- P.S.E.16. HEPATOPROTECTIVE ROLE OF TUNGSTATES**
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- P.S.E.17. ADDITIONAL ENZYME CATALYTIC EFFECTS TO DEGRADATION OF SMART POLYMER BIOMATERIALS**
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- P.S.E.18. RHEOLOGICAL ASPECTS OF STRUCTURED-GEL IMPLANT APPLICATIONS**
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- P.S.E.19. STUDY OF THE RELEASE OF THE HEAVY METALS FROM VARIOUS FIXED DENTURES (APPLIANCES) INTO SYNTHETIC SALIVA, USING ELECTROCHEMICAL STRIPPING ANALYSIS**
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- P.S.E.20. APPLICATION ANALYSIS OF MICRO AND NANO COMPOSITES IN RESTORING OF BONE TISSUE OF THE JAW**
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- P.S.E.21. EVALUATION OF GLASSIONOMER CEMENT APPLICATION FOR PERMANENT BINDING OF PROSTHETIC DENTURES**
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- P.S.E.22. BOVINE SERUM ALBUMIN (BSA) ION INTERACTION FOLLOWED BY ITC**
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- P.S.E.23. THIN FILMS AND IMPLANT MATERIALS**
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- P.S.E.24. EFFECT OF HYDROGELS BASED ON 2-HYDROXYETHYL METHACRYLATES TO ERYTHROCYTE RESISTANCE TO HEMOLYSIS**
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P.S.E.25. EFFECT OF HYDROGELS BASED ON 2-HYDROXYETHYL METHACRYLATES TO VIABILITY AND OXIDATIVE ABILITY OF RAT PERITONEAL MACROPHAGES

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P.S.E.26. OSTEOGENIC ACTIVITY IN A MICE SUBCUTANEOUS IMPLANT OF POROUS HYDROXYAPATITE/POLY-L-LACTIDE LOADED WITH BONE MARROW CELLS

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P.S.E.27. DESIGNING OF THE ALGINATE HYDRO GEL BEADS MORPHOLOGY USING ULTRASONIC SPRAY GELLING METHOD

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