



NANOAPP 2015

Nanomaterials & Application
23 - 26 June 2015, Maribor, Slovenia

Day 1: Tuesday, 23 June 2015

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| 15:00 - 19:00 | Registration - Hotel Habakuk Congress Centre Foyer 1 |
| Room | Turner |
| 16:00 - 16:10 | Welcome Remarks: Prof. Dr. A. Lobnik, Slovenia |
| Session Chair | Prof. Dr. Aleksandra Lobnik: NANOMATERIALS/HYBRID NANOMATERIALS |
| 16:10 - 16:30 | Invited Lecture I2: Prof. Dr. R. Zboril - Advanced nanoarchitecture of iron and carbon based materials for environmental, catalytic and biomedical applications |
| 16:30 - 16:50 | Invited Lecture I3: Prof. Dr. S. Bégin-Colin, Mathilde Menard - Core-shell nanoparticles designed for theranostics |
| Session Chair | Prof. Dr. Jean Olivier Durand: Young Scientists Session |
| 16:50 - 17:10 | Invited Lecture I4: Dr. P. Jenuš - Preparation of ferrite-based exchange-coupled hard/soft magnetic nanocomposites |
| 17:10 - 17:25 | Oral Presentation O1: A. Noureddine - Inkjet-printed mesoporous silica dots as biosensors for cancer diagnosis and therapy |
| 17:25 - 17:40 | Oral Presentation O2: M. Bračič - Patterned surface modification of ultra-thin PDMS films with polysaccharides for advanced biomedical sensoric devices |
| 17:40 - 17:55 | Oral Presentation O3: E. F. Grosu - Nanostructured mixtures of mixed oxides derived from layered double hydroxides reconstructed in $\text{Ga}_2(\text{SO}_4)_3$ and $\text{In}(\text{C}_2\text{H}_3\text{O}_2)_3$ aqueous solutions for efficient UV and solar-driven photocatalysis |
| 17:55 - 18:10 | Oral Presentation O4: M. Lakhane - Structural properties of novel zeolite-modified cellulose nanofibril composites, and their potential applications |
| 18:10 - 18:25 | Oral Presentation O5: C. Mansas - Synthesis of core-shell nanoparticles to capture radioactive cesium |
| 18:25 - 18:40 | Oral Presentation O6: U. Maver - Electrospun nanofibrous CMC/PEOX as a part of an effective pain relieving wound dressing |
| 20:00 - 22:00 | Welcome Reception - Hotel Habakuk Congress Centre Foyer 2 |
| End of Day 1 | |

| Day 2: Wednesday, 24 June 2015 | |
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| Room | Turner |
| Session Chair | Prof. Dr. Aleksandra Lobnik: Opening |
| 9:00 - 9:30 | Welcome Remarks: Prof. Dr. A. Lobnik, Slovenia Director-General of Science Directorate of the Ministry of Education, Science and Sport - Mag. U. Krajcar, Slovenia Vice Rector of the University of Maribor - Prof. Dr. N. Samec, Slovenia Dean of the Faculty of Mechanical Engineering, University of Maribor - Prof. Dr. B. Dolšak, Slovenia |
| Session Chair | Prof. Dr. Michel Wong Chi Man: NANOMATERIALS & APPLICATIONS |
| 9:30 - 10:15 | Plenary Lecture P1: Prof. Dr. Ha Chang-Sik, South Korea - Periodic Mesoporous Organosilicas for Drug Delivery and Metal Adsorption |
| Session Chair | Prof. Dr. Guillermo Orellana: NANOMATERIALS IN SENSORS |
| 10:15 - 10:35 | Invited Lecture I5: Prof. Dr. B. Mizaikoff, Germany - Molecularly Imprinted Nanoparticles for Advanced Biomimetic Assays |
| 10:35 - 10:55 | Invited Lecture I6: Prof. Dr. K. Katagiri, Japan - Nanoparticle-based nanohybrid materials for biomedical applications |
| 10:55 - 11:40 | Coffee Break and Posters |
| Room | Turner |
| Session Chair | Prof. Dr. Ulrich Schubert: NANOMATERIALS/HYBRID NANOMATERIALS |
| 11:40 - 12:25 | Plenary Lecture P2: Prof. Dr. J. Bartlett, Australia - Cooperative Physical and Chemical Interactions for the Sol-Gel Processing of Organised Films and Nanoparticles |
| 12:25 - 12:45 | Invited Lecture I7: Prof. Dr. H. Hofmann, Switzerland - New insight into the colloidal behavior of suspensions with nanoparticles |
| 12:45 - 13:05 | Invited Lecture I8: Prof. Dr. M. Osada, Japan - Hierarchically Structured Assembly of 2D Nanosheets for Tailored Artificial Materials |
| 13:05 - 13:25 | Invited Lecture I9: Prof. Dr. R. Šafarič - Using van der Waals force for gripping nano/micro sized objects |
| 13:25-14:40 | Lunch |
| Room | Turner |
| Session Chair | Prof Dr. Heinrich Hofmann: NANOMATERIALS IN BIO/MEDICAL APPLICATIONS |
| 14:40 - 15:25 | Plenary Lecture P3: Prof. Dr. K. Stana Kleinschek, Slovenia - Polysaccharide materials for biomedical applications |
| 15:25 - 15:45 | Invited Lecture I10: Prof. Dr. L. Vellutini, France - Functionalized core-shell γ -Fe ₂ O ₃ nanoparticles for bio-immobilization |
| 15:45 - 16:05 | Invited Lecture I11: Prof. Dr. C. Carcel - pH-operated hybrid silica nanoparticles for autonomous drug delivery |
| 16:05 - 16:25 | Invited Lecture I12: Prof. Dr. P. Nikitin - Biocomputing with nanoparticles for biomedical applications |
| 16:25 - 16:45 | Invited Lecture I13: Prof. Dr. J. O. Durand- Mesoporous Silica, Bridged Silsesquioxane, Periodic Mesoporous Organosilica Nanoparticles for drug delivery and two-photon Photodynamic Therapy |
| 16:45 - 17:15 | Coffee Break and Posters |
| Room | Turner |
| Session Chair | Prof. Dr. Masahide Takahashi: NANOMATERIALS IN BIO/MEDICAL APPLICATIONS |
| 17:15 - 17:45 | Keynote Lecture K1: Prof. Dr. A. Gedanken, Israel - Making the Hospital a safer place by the sonochemical coating of all the textiles with antibacterial NPs |
| 17:45 - 18:05 | Invited Lecture I14: Prof. Dr. S. Lambert - Efficient P- and Ag-doped titania for the photocatalytic degradation |
| 18:25 - 19:00 | Poster Session |
| | Free evening |
| End of Day 2 | |

| Day 3: Thursday, 25 June 2015 | |
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| Room | Turner |
| Session Chair | Prof. Dr. Loïc Blum: NANOMATERIALS IN SENSORS |
| 8:30 - 9:15 | Plenary Lecture P4: Prof. Dr. L. Lechuga, Spain - Point-of-care photonic nanobiosensors for global health diagnostics: Challenges and opportunities |
| Session Chair | Prof. Dr. Laura Lechuga: NANOMATERIALS IN SENSORS |
| 9:15 - 9:35 | Invited Lecture I16: Prof. Dr. G. Orellana - Light, Molecularly Imprinted Polymers and Nanotechnology to Tackle Analytical Challenges |
| 9:35 - 9:55 | Invited Lecture I17: Prof. Dr. I. Klimant - High performance luminescence indicators and sensing materials |
| 9:55 - 10:15 | Invited Lecture I18: Prof. Dr. L. Blum - Nanostructuring of lipids for membrane biochip development |
| 10:15 - 10:35 | Invited Lecture I19: Prof. Dr. G. Mohr - Absorbance and fluorescence based indicator dyes for use in nanomaterials |
| 10:35 - 10:55 | Invited Lecture I20: Prof. Dr. D. Boyer - Up-Converting Nanoparticles for Smart Traceability |
| 10:55 - 11:15 | Invited Lecture I21: Prof. Dr. J. D. Brennan, Canada - A Biosensing Platform Based on Synergistic Release of DNA Probes from Reduced Graphene Oxide and Rolling Circle Amplification |
| 11:15 - 11:35 | Coffee Break and Posters |
| Room | Turner |
| Session Chair | Prof. Dr. Stephane Parola: NANOMATERIALS IN ENVIRONMENT |
| 11:35 - 11:55 | Invited Lecture I22: Prof. Dr. O. Solcova - Water Treatment by Various Methods – Advantages and Disadvantages |
| 11:55 - 12:15 | Invited Lecture I23: Prof. Dr. M. Franko - Coupling Photothermal Spectroscopy and Nanotechnology |
| 12:15 - 12:35 | Invited Lecture I24: Prof. Dr. R. Backov, France - Integrative Chemistry-based Rational Design of Advanced Porous Materials Dedicated to Energy Conversion and Storage |
| 12:35 - 12:55 | Invited Lecture I25: Prof. Dr. P. Trens - Combining experimental and theoretical approaches for studying the sorption of vapours by Metal Organic Frameworks |
| 12:55 - 13:15 | Invited Lecture I41: Dr. T. Feczko, Hungary - Latent heat storage by silica nanoparticles-coated polymer beads containing organic phase change materials |
| 13:15 - 14:20 | Lunch |
| Room | Turner |
| Session Chair | Prof. Dr. John Bartlett: NANOMATERIALS/HYBRID NANOMATERIALS |
| 14:20 - 14:50 | Keynote Lecture K2: Prof. Dr. L. Malfatti - Graphene nanostructures in self-assembled mesoporous films: towards the design of highly performing nanocomposites |
| 14:50 - 15:10 | Invited Lecture I26: Prof. Dr. K. Pirnat - Graphene nanoribbons in Li-ion batteries |
| 15:10 - 15:30 | Invited Lecture I27: Prof. Dr. A. Shimojima, Japan - Synthesis of Mesoporous Silica Nanoparticles with Controlled Architectures |
| 15:30 - 15:50 | Invited Lecture I28: Prof. Dr. D. Grosso - Nanostructured sol-gel coatings, preparation and application |
| 15:50 - 16:10 | Invited Lecture I29: Prof. Dr. M. Takahashi - Stimuli-responsive microarchitectures with peristaltic capabilities based on bilayered hybrid materials |
| 16:10 - 16:30 | Invited Lecture I30: Prof. Dr. X. Cattoën - Click chemistry: a powerful tool for the functionalization of nanoparticles |
| 16:30 - 16:45 | Oral Presentation O8: Prof. Dr. J. Causse - Facile one-pot synthesis of copper hexacyanoferrate functionalized silica monoliths for the selective uptake of ¹³⁷ Cs |
| 18:30 | Departure to the Cablecar - 5 minutes easy walk |
| 19:00 - 22:00 | Cablecar Dinner |
| End of Day 3 | |

| Day 4: Friday, 26 June 2015 | |
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| Room | Turner |
| Session Chair | Prof. Dr. Masahide Takahashi: NANOMATERIALS/HYBRID NANOMATERIALS |
| 8:30 - 9:15 | Plenary Lecture P5: Prof. Dr. U. Schubert, Austria - Metal oxide clusters as models for metal oxide nanoparticles |
| 9:15 - 9:35 | Invited Lecture I31: Prof. Dr. D. Portehault, France - Bridging the gap between solid state chemistry and nanoscale chemistry: from alloys to functional complex oxides |
| 9:35 - 9:55 | Invited Lecture I35: Prof. Dr. B. Pichon - Enhancement of magnetic properties in Fe ₃ O ₄ @CoO core-shell nanoparticles exhibiting exchange bias coupling |
| 9:55 - 10:15 | Invited Lecture I33: Prof. Dr. J.-L. Bantignies - 1D-confinement inside single-wall carbon nanotubes |
| 10:15 - 10:35 | Invited Lecture I34: Prof. Dr. D. Makovec - Synthesis of magnetic and multifunctional nanocomposites based on the colloidal processing of nanoparticles |
| 10:35 - 10:55 | Invited Lecture I32: Prof. Dr. A. Bóta - Advantages of a new general purpose small-angle X-ray scattering laboratory instruments in characterization of nanomaterials |
| 10:55 - 11:25 | Coffee Break and Posters |
| Room | Turner |
| Session Chair | Prof. Dr. John D. Brennan : NANOMATERIALS IN ENVIRONMENT |
| 11:25 - 11:45 | Invited Lecture I36: Prof. Dr. S. Parola - Hybrid sol-gel composite materials with microstructuration for photocatalytic applications |
| 11:45 - 12:05 | Invited Lecture I37: Prof. Dr. B. Heinrichs, Belgium - Doped oxide powders and films through low temperature syntheses for applications in water purification and anti-corrosion |
| 12:05 - 12:25 | Invited Lecture I38: Prof. Dr. N. Zabukovec Logar - Advanced heat storage materials for integrated storage solutions |
| 12:25 - 12:45 | Invited Lecture I39: Prof. Dr. U. Lavrečič Štangar - Towards efficient removal of contaminants from households grey waste water: Photocatalytic ozonation process |
| 12:45 - 13:05 | Invited Lecture I40: Prof. Dr. M. Lira Cantu, Spain - Solution processing Transition Metal Oxides and Graphene for Printed Organic Solar Cells |
| 13:05 - 13:15 | Conference Closing Remarks - Prof. Dr. A. Lobnik, Slovenia |
| 13:15 - 15:00 | Lunch |
| 17:00 - 00:00 | Timber rafting on river Drava , Wine tasting |
| End of the Conference | |
| End of Day 4 | |