

WEDNESDAY, 12 OCTOBER, 2016

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| 12:00–14:00 | Registration | | | |
| 14:00–14:20 | Opening Ceremony | | | |
| | Session Chair: T. Pichler (Austria) | | | |
| 14:20–15:20 | K01 / R. Vajtai (USA): 2D materials beyond the edge for green energy applications | | | |
| 15:20–16:20 | K02 / A. C. Ferrari (UK): The roadmap to applications of graphene, layered materials and hybrid systems | | | |
| 16:20–17:00 | I01 / K. Kamarás (Hungary): Encapsulated molecules in boron nitride nanotubes | | | |
| 17:00–17:20 | Coffee Break | | | |
| | SESSION A Session Chair: L. P. Biró (Hungary) | | SESSION B Session Chair: R. Vajtai (USA) | |
| 17:20–17:40 | O01 / R. Sakamoto (Japan) | A photofunctional bottom-up bis(dipyrinato)zinc(II) complex nanosheet | O04 / L. Chernozatonskii (Russia) | Nanohole structures based on bilayers of 2D materials: formation, their electronic properties and applications |
| 17:40–18:00 | O02 / T. Szabó (Hungary) | Size-dependent aggregation behavior of graphene oxide sheets in electrolyte solutions | O05 / Z. Osváth (Hungary) | The structure and properties of graphene suspended on nanoparticles |
| 18:00–18:20 | O03 / P. Vancsó (Hungary) | STM investigation of point defects in various transition-metal dichalcogenide single layers | O06 / A. Pálkás (Hungary) | Investigation of graphene-gold hybrid nanostructures by scanning tunnelling microscopy and spectroscopy |
| | Session Chair: L. P. Biró (Hungary) | | | |
| 18:20–19:00 | I02 / I. Halasz (USA): Distinguishing internal and external Brønsted acidity in molecular sieves by combining experimental and simulated FTIR spectra | | | |
| 19:00–21:00 | Welcome Reception | | | |

THURSDAY, 13 OCTOBER, 2016

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| | Session Chair: R. Sakamoto (Japan) | | | |
| 9:00–10:00 | K03 / I. Willner (Israel): Switchable DNA-based nanostructures for sensing, machinery, drug delivery and switchable hydrogels | | | |
| 10:00–10:40 | I03 / L. P. Biró (Hungary): Structural coloration of lycaenid butterflies: from sexual signaling to chemically selective sensing | | | |
| 10:40–11:00 | Coffee Break | | | |
| | SESSION A Session Chair: I. Willner (Israel) | | SESSION B Session Chair: L. A. Chernozatonskii (Russia) | |
| 11:00–11:20 | O07 / I. Szilágyi (Switzerland) | Stabilization of enzyme-layered double hydroxide nanocomposites in suspensions | O13 / V. Demin (Russia) | Piezoelectricity of graphene/BN in-plane heterostructures |
| 11:20–11:40 | O08 / M. Hubalek Kalbacova (Czech Republic) | <i>In vitro</i> study of silicon quantum dots in human cells | O14 / P. B. Sorokin (Russia) | <i>Investigation of graphene-type layers in ultrathin films of the ionic compound - Changing in the programme! New date: 14 October, 13:20-13:40, Session B</i> |
| 11:40–12:00 | O09 / J. Demel (Czech Republic) | Nanoscaled porphyrinic metal-organic framework: towards application in photodynamic therapy | O15 / A. G. Kvashnin (Russia) | Novel hybrid nanostructures based on graphitic zinc oxide/sulphide monolayers |
| 12:00–12:20 | O10 / H. Uchiyama (Japan) | Preparation of nanostructured SnO particles through crystal growth in the presence of biological polymers | O16 / P. Kuzhir (Belarus) | Carbonaceous nano-films for microwave shielding applications |
| 12:20–12:40 | O11 / Z. Dudás (Hungary) | Physicochemical characterization of organically modified silica gels obtained by sol-gel process | O17 / A. Plyushch (Belarus) | Phosphate ceramics – carbon nanotube composites |
| 12:40–13:00 | O12 / J. Hynek (Czech Republic) | Porphyrin-based conjugated microporous polymers as solid-state photosensitizers for singlet oxygen | O18 / G. I. Márk (Hungary) | Bioinspired photonic structures active in a large wavelength scale |
| 13:00–14:40 | Lunch | | | |
| | Session Chair: K. Kordas (Finland) | | | |
| 14:40–15:20 | I04 / A. V. Krasheninnikov (Finland): Defects in two-dimensional inorganic materials | | | |
| 15:20–16:00 | I05 / P. Ayala (Austria): Understanding ultra-low doping in single-walled carbon nanotubes towards applications | | | |
| 16:00–16:40 | I06 / A. Rawal (India): Compression induced electrical response of entangled network of buckypaper | | | |
| 16:40–17:00 | Coffee Break | | | |
| | SESSION A Session Chair: P. M. Vilarinho (Portugal) | | SESSION B Session Chair: A. Rawal (India) | |
| 17:00–17:20 | O19 / O. Yu. Kurapova (Russia) | Thermal evolution of stabilized zirconia nanopowders obtained via cryochemical route | O25 / Á. Gali (Hungary) | Time resolved emission study of nanoparticles with complex radiation mechanism |
| 17:20–17:40 | O20 / A. Kierys (Poland) | Porous polymers as a specific microenvironment of silica precursors transformation | O26 / A. Sibal (India) | Theoretical modelling of 'smart' nanogenerators grown on nonwoven materials |
| 17:40–18:00 | O21 / R. Zairov (Russia) | High performance magneto-fluorescent nanoparticles assembled from terbium and gadolinium 1,3-diketones | O27 / L. Shi (Austria) | Synthesis and properties of long linear carbon chains |
| 18:00–18:20 | O22 / C. Vasilescu (Romania) | Very high concentration aqueous magnetic nanofluids: synthesis, colloidal stability, magnetic and flow properties | O28 / A. M. Dimiev (Russia) | Oxidative unzipping of carbon nanotubes. Controlling reaction parameters affords new types of graphene nanoribbon products |
| 18:20–18:40 | O23 / S. B. Mishra (South Africa) | Empowering waste water treatment techniques using advanced materials at nanoscale | O29 / S. Javadian (Iran) | Pulsed current electrodeposition parameters to control the Sn particle size to enhance electrochemical performance as anode material in lithium ion batteries |
| 18:40–19:00 | O24 / M. Saeed (Pakistan) | Nano sized zinc oxide: an efficient catalyst for degradation of rhodamine B dye in aqueous medium | G. Brunetti (France) | New JEOL developments for scanning & transmission electron microscopes: IT300HR & F2 |
| 19:00–21:00 | POSTER SESSION | | | |
| 21:00–23:00 | Conference Dinner (Optional) | | | |

FRIDAY, 14 OCTOBER, 2016

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| | Session Chair: Cs. Janáky (Hungary) | | | |
| 9:00–10:00 | K04 / K. Rajeshwar (USA): Leveraging solid state chemistry paradigms for solar fuels generation | | | |
| 10:00–10:40 | I07 / K. Takanabe (Saudi Arabia): Towards photocatalysis by design for efficient water splitting | | | |
| 10:40–11:00 | Coffee Break | | | |
| | Session Chair: K. Rajeshwar (USA) | | | |
| 11:00–11:40 | I08 / P. M. Vilarinho (Portugal): Nanoporous ferroelectrics for emerging applications | | | |
| | SESSION A Session Chair: K. Rajeshwar (USA) | | SESSION B Session Chair: B. Pécz (Hungary) | |
| 11:40–12:00 | O30 / L. Kavan (Czech Republic) | Nanostructured (photo)catodes for dye-sensitized solar cells | O36 / T. Pichler (Austria) | Tailored hybrid materials using nanochemistry inside carbon nanotubes |
| 12:00–12:20 | O31 / H. Shin (Korea) | Asymmetric nanostructure of metal/semiconductor: confined crystallization and their implications | O37 / N. Strokova (Russia) | Adsorption properties of spark plasma sintered nitrogen-doped carbon nanomaterials |
| 12:20–12:40 | O32 / Cs. Janáky (Hungary) | Hybrid nanoscale architectures of semiconductors and carbon nanomaterials tailored for photoelectrochemical applications | O38 / G. Németh (Hungary) | Near-field infrared nanoscopy on different types of carbon nanotube bundles |
| 12:40–13:00 | O33 / R. Kun (Germany) | Fabrication and electrochemical performance of flexible all-solid-state Li-ion microbatteries | O39 / G. Vári (Hungary) | Interaction of gold with the hexagonal boron nitride nanomesh prepared on Rh(111) |
| 13:00–13:20 | O34 / S. Chernyak (Russia) | Co crystallinity and CNT evolution in CO and CO ₂ hydrogenation over Co/CNT catalysts | O40 / I. Szentí (Hungary) | Promotion and inhibition effects of TiO ₂ and MoO ₃ species on the reactivity of atomically thin Rh films |
| 13:20–13:40 | O35 / K. Kordas (Finland) | Diamond-like carbon and carbon nanotube hybrids for biochemical sensing | O14 / P. B. Sorokin (Russia) | Investigation of graphene-type layers in ultrathin films of the ionic compound |
| 13:40–15:00 | Lunch | | | |
| 15:00–18:00 | Optional Programmes: Horseback Archery Show / Guided Walking Tour | | | |

SATURDAY, 15 OCTOBER, 2016

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| | Session Chair: K. Kamarás (Hungary) | | | |
| 9:00–10:00 | K05 / P. M. Ajayan (USA): Materials science of 2D atomic layers | | | |
| 10:00–10:40 | I09 / B. Pécz (Hungary): Nanolayers in nitride high power devices grown on diamond and graphene | | | |
| 10:40–11:00 | Coffee Break | | | |
| | Session Chair: L. Kavan (Czech Republic) | | | |
| 11:00–11:40 | I10 / M. Haluska (Switzerland): Progress in integration of individual as grown single-walled carbon nanotubes into field-effect transistor based ultra-low power gas sensors | | | |
| 11:40–12:00 | O42 / M. Zukalova (Czech Republic): Li and Na insertion into Li₄Ti₅O₁₂ made by different synthetic protocol | | | |
| 12:00–12:20 | O43 / É. Kováts (Hungary): New family of Zn carboxylate MOFs with cubane linkers | | | |
| 12:20–12:40 | I11 / A. Gharib (Iran): ZnO nanoparticles catalyst in synthesis of xanthene and 1,8-dioxo-octahydroxanthene | | | |
| 12:40–13:00 | Closing Ceremony | | | |