

FINAL PROGRAM OF 5TH SZEGED INTERNATIONAL WORKSHOP ON ADVANCES IN NANOSCIENCE 2012

Wednesday 24th October				
12:00-14:00	Registration			
14:00-14:20	Opening Ceremony			
14:20-15:20	Keynote Lecture: M. Terrones (USA) — Novel nanocarbons: Defective graphenes, nanoribbons with atomically smooth edges and graphene-nanotube hybrid structures (K3)			
	Session A		Session B	
15:20-15:40	G. Kaptay (Hungary)	On the equilibrium of nano-systems (O40)	D. Beke (Hungary)	Luminescent silicon carbide quantum dots prepared by reactive bonding and subsequent wet chemical etching: Characterization and potential applications (O30)
15:40-16:00	Ch. Kramberger (Austria)	Diameter control and one-dimensional N ₂ gas inside single-walled carbon nanotubes (O11)	J. T. Roberts (USA)	Surface modification of aerosol nanoparticles for materials applications (O51)
16:00-16:20	V. Mlinar (USA)	Design of semiconductor nanostructured materials using theory (O10)	J. Soukupova (Czech Republic)	Universal approach to covalent immobilization of silver nanoparticles on solid substrates (O55)
16:20-17:00	Coffee break			
17:00-17:20	T. Haraszi (Germany)	Quasi 2-dimensional actin models: Is the bundling irreversible? (O47)	Keynote Lecture D. Diaz (Mexico)	Iron, copper and bismuth do not belong to royalty; however, when stabilized and nanostructured, they become highly prized (K2)
17:20-17:40	K. W. Sun (Taiwan)	Enhanced light harvesting of Si solar cell via luminescent down-shifting using YVO ₄ nanophosphors (O17)		
17:40-18:00	A. Boyko (Russia)	Application of nanostructuring techniques for fabrication of getters for mems (O01)	D. Carta (Italy)	Iron-cobalt nanocrystalline alloy supported on a cubic mesostructured silica matrix (SBA-16): synthesis and structural characterization (O26)
18:00-18:20	K. Kolwas (Poland)	Plasmon resonance frequencies and damping rates as a function of size of gold nanospheres (O43)	A. Corrias (Italy)	The study of the inversion degree in zinc ferrite nanocrystals dispersed on a highly porous silica aerogel matrix (O49)
18:20-18:40	W. Jones (USA)	MP-SPR – A new optical characterization method for ultrathin films (O33)	J.-S. Yu (Korea)	Nitrogen-containing CMK-3 carbon nanorods with different length as efficient cathode for oxygen reduction reaction (O60)
19:00-21:00	Welcome reception			

Thursday 25th October				
9:00-10:00	Keynote Lecture: M. S. Strano (USA) — Advances in understanding the chemistry of graphene and carbon nanotubes: Fundamentals and applications (K1)			
	Session A		Session B	
10:00-10:20	Keynote Lecture M. Foldvari (Canada)	Toxicology perspectives on nanomedicines (K7)	T. Pichler (Austria)	Unravelling the correlated electronic and optical properties of tailored low dimensional carbon hybrids (O56)
10:20-10:40			V. Grossi (Italy)	Photocurrent from planar strips of multi wall carbon nanotubes (O42)
10:40-11:20	Coffee break			
11:20-11:40	A. Csáki (Germany)	Molecular plasmonics – Biomolecules meets the colourful world of nanoparticles (O32)	L. P. Biró (Hungary)	Grain boundaries and nanoripples in cvd grown graphene (O23)
11:40-12:00	B. Joussetme (France)	Functionalization of multi-wall carbon nanotubes with a bio-inspired hydrogenase mimic for hydrogen evolution and uptake (O22)	Gy. Klupp (Hungary)	Infrared signatures of correlation in expanded fullerenes (O25)
12:00-12:20	Cs. L. Sajti (Germany)	Laser-based synthesis of multimaterial nanocomposites for medical and optical applications (O29)	V. Korepanov (Taiwan)	Optical spectroscopy of 'soluble' nanocarbon: Nanodiamond and graphene oxide (O41)
12:20-12:40	A. Kumar (India)	Supramolecular directed assemblies of biotemplated metal / semiconductor nanohybrids (O50)	M. Ahlskog (Finland)	Electronic transport in intermediate sized multiwalled carbon nanotubes (O15)
12:40-13:00	I. Dékány (Hungary)	Plasmonic nanoparticles for photocatalysis and biomedical applications (O44)	G. Galimberti (Italy)	Time resolved optical measurements on different architectures of carbon nanotubes as a basis of new photovoltaic devices (O54)
13:00-14:40	Lunch			
14:40-15:40	Keynote Lecture: Z. Zhang (China) — PCBs detection using Ag nanorods by GLAD (K4)			
15:40-16:00	N. Ábrahám (Hungary)	Langmuir monolayer study of the interaction of biofunctionalised Gold nanoparticles with phospholipid membranes (O28)	I. M. Low (Australia)	Effect of doping via ion-implantation on the crystallization, phase stability and binding energy in TiO ₂ nanotubes (O12)
16:00-16:20	M. Deli (Hungary)	Nanoparticles: toxicity and penetration across biological barriers (O36)	G. Tulzer (Austria)	Characteristics of CO and H ₂ detection with single nanowire gas sensors (O05)
16:20-17:00	Coffee break			
17:00-17:20	Cs. Balázi (Hungary)	Nano-hydroxyapatite composites for emdical applications (O35)	V. Batra (India)	Nanoporous carbon from unburned carbon in bagasse ash (O37)
17:20-17:40	M. Weszl (Hungary)	Formation of titanium-dioxide nanostructures on the surface of medical grade implant materials and investigation of their effect on bacteria (O21)	H. Perez (France)	Porous nanostructures based on carbon nanotubes and capped platinum electrocatalysts through bottom-up approach: Model and efficient electrodes structures for fuel cells (O46)
17:40-18:00			E. Muñoz (Spain)	Carbon nanotube networks as sensitive layers of gas sensor applications (O03)
18:00-20:00	Poster section			
20:00-22:00	Optional dinner and wine tasting			

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Friday 26th October				
9:00-10:00	Keynote Lecture: R. Vajtai (USA) — Preparation of 2D materials and energy storage and optical applications (K5)			
	Session A		Session B	
10:00-10:20	F. Simon (Hungary)	Isotope engineering in carbon nanostructures (O27)	M. F. Casula (Italy)	Synthesis and surface modification of nanoparticles for theragnostics (O52)
10:20-10:40	H. S. Kang (Republic of Korea)	Electronic and optical properties of organic conjugated polymers for optoelectronics (O14)	S. Talapatra (USA)	Emerging applications of carbon nanomaterials in energy & environment (O16)
10:40-11:00	F. Yakuphanoglu (Turkey)	A nanostructure pentacene thin film transistor with good performance using sol-gel derived SiO ₂ gate dielectric layer (O38)	B. M. Muradov (Azerbaijan)	Formation of the copper sulfide nanoparticles by ion exchange from electrolyte solutions (O20)
11:00-11:40	Coffee break			
11:40-12:00	K. Kamarás (Hungary)	Vibrational spectroscopic methods applied to self-assembled nanostructures (O57)	M. Cavas (Turkey)	Fabrication and electrical characterization of CdO nanorods CdO/p-Si photosensors (O18)
12:00-12:20	H. Shiozawa (Austria)	Bilateral formation of carbon spirals from a high pressure organometallic precursors (O02)	C. Tatar (Turkey)	ZnO nanopowder based on quartz crystal microbalance humidity sensors (O59)
12:20-12:40	C. D. Spataru (USA)	Electronic and optical properties of carbon nanotubes on metallic substrates (O13)	E. Guzel (Turkey)	ZnO nanofiber films for UV sensor applications (O58)
12:40-13:00	N. Ozdemir (Turkey)	Nanocluster bi-doped CdO thin films for optoelectronic applications (O34)	K. O. Iwu (Norway)	A solid-state photoelectrochemical water splitting cell with a composite Nafion® membrane and gaseous reactants (O48)
13:00-13:20	T. Wada (Japan)	Novel strategy for cancer cell specific oligonucleotide therapeutics with intracellular environmental condition responsible artificial nucleic acid: Peptide Ribonucleic Acids (PRNA) (O39)	V. Guzsvány (Serbia)	Comparison of carbon paste electrodes bulk modified with multiwall carbon nanotubes and gold nanoparticles for determination of hydrogen peroxide (O07)
13:20-15:00	Lunch			
15:00-22:00	Optional journey to Ópusztaszer (till 18:00) and dinner			

Saturday 27th October				
9:00-10:00	Keynote Lecture: D. Bavykin (UK) — Spontaneous formation of multiwalled metal oxide nanotubes (K6)			
	Session A		Session B	
10:00-10:20	J. Fortágh (Germany)	Cold-atom scanning probe microscopy (O06)	M. C. dos Santos (Brazil)	Carbon nanotubes meet hairy polymers: Superstructures of carbon nanotubes and conjugated polymers having long alkyl tails (O04)
10:20-10:40	É. Kováts (Hungary)	High symmetry rotor-stator cocrystals of fullerenes (O24)	O. Regev (Israel)	Polymer properties enhancement by hybrid nanofillers (O45)
10:40-11:00	V. Kuncser (Romania)	Complex characterization of magnetic configurations in multiphase nanoparticulate systems (O08)	J. Saida (Japan)	Control of relaxation state for nanostructure formation based on glassy alloys (O09)
11:00-11:40	Coffee break			
11:40-12:00	H. C. Radulescu (Romania)	Textile and antifungal behavior of a cotton woven support to ultrasonically deposited copper oxide nanoparticles by means of two different methods (O53)	K. Kordas (Finland)	Flexible electrodes prepared by reactive inkjet printing (O19)
12:00-12:20			G. Toth (Finland)	Macroscopic carbon nanotube fibers (O31)
12:40-13:00	Closing ceremony			