

# "Organometallics and Materials Chemistry - a happy marriage"

02 October - 07 October

## Workshop Jerusalem-Berlin at Technische Universität Berlin

*(PLEASE NOTICE: Program subject to minor changes)*

**LOCATION:** Technische Universität Berlin, Institute of Chemistry, Bulding C, Lecture Room C 264 (second floor), Straße des 17. Juni 115, 10623 Berlin

**Talks:** Time allocated per speaker: 30 min. (20-25 min. presentation + 5-10 min. discussion). Time will be strictly kept - **NO** exceptions.

Thursday 2 October		Friday 3 October	Saturday 4 October	Sunday 5 October	Monday 6 October	Tuesday 7 October	
<b>A R R I V A L</b>	09:00 – 09:30	<b>Y. Blum</b> "The application of silica sol-gel in selective catalytic hydrogen transfer and C-C coupling processes"	<b>I. Willner</b> "Nanobiotechnology with Biomolecule-Nanoparticle Nanostructures"	<b>E X C U R S I O N</b>	<b>S. Blechert</b> "Olefin metathesis: Catalysts, methodologies, and natural products"	<b>D E P A R T U R E</b>	
	09:30 – 10:00	<b>M. Assher</b> "Buffer layer assisted metallic nanoclusters growth as model catalysts"	<b>POSTER SESSION WITH COFFEE</b>		<b>D. Porath</b> "From bio-inspired systems for nanoelectronics to physico-inspired tools to study bio-systems"		
	10:00 – 10:30	<b>P. Strasser</b> "Nanoscale electrocatalysis for sensing and energy conversion"			<b>U. Banin</b> "Hybrid metal-semiconductor nanoparticles and their application in photocatalysis"		
	10:30 – 10:50	<b>COFFEE BREAK</b>			<b>COFFEE BREAK</b>		
	10:50 – 11:20	<b>M. Gradzielski</b> "Formation of mesoporous silica in self-organising vesicle gels"			<b>Y. Sasson</b> "Immobilization and stabilization of catalytic metallic nanoparticles in polyurea microencapsulated ionic liquid microglobules"		
	11:20 – 11:50	<b>R. Yerushalmi</b> "Generic nanostructure assembly by solution and printing approaches"			<b>M. Driess</b> "New directions in functional materials synthesis using organometallic precursors"		<b>A. Friedler</b> "Using peptides to study protein-protein interactions: a basis for drug design"
	12:00 – 14:00	<b>LUNCH</b>			<b>LUNCH</b>		<b>LUNCH</b>

<b>A R R I V A L</b>	<b>14:00 – 14:30</b>	<b>J. Maultzsch</b> "Optical properties of functionalized carbon nanotubes"	<b>D. Mandler</b> "Structuring the solid-liquid interface by monolayers and thin films"	<b>E X C U R S I O N</b>	<b>E. Malguth</b> "Electronic and spin properties of doped ZnO for chemical sensing"	<b>D E P A R T U R E</b>
	<b>14:30 – 15:00</b>	<b>D. Gelman</b> "Trans-spanned versus cyclometalated complexes: structure and reactivity"	<b>E. Tshuva</b> "Titanium complexes of dioxo ligands for biological applications: Structure, properties, and reactivity of new cytotoxic reagents"		<b>S. Yitzchaik</b> "Molecular tuning of semiconductors and acetylcholine sensing"	
	<b>15:00 – 15:30</b>	<b>M. Richter</b> "Excitation energy transfer between coupled quantum dots"	<b>R. Abu-Rezik</b> "The Use of Magnetically Separable Catalytic Systems in Organic Synthesis"		<b>P. Vogt</b> "Atomic structure and optical properties of interfaces between organic molecules and semiconductor surfaces"	
	<b>15:30 – 16:00</b>	<b>COFFEE BREAK</b>			<b>COFFEE BREAK</b>	
	<b>16:00 – 16:30</b>	<b>A. Bino</b> "Long-lived Carbyne Radicals in Aqueous Solution"			<b>S. Magdassi</b> "Formation and applications of metallic nanoparticles"	
	<b>16:30 – 17:00</b>	<b>A. Thomas</b> "Porous materials: From hard to soft functional networks"			<b>A. Grohmann</b> "Towards surface-attached spin crossover complexes"	

## POSTERS

<b>Asscher, M.</b>	· Collision Induced Annealing	1	<b>Grohmann, A.</b>	· Iron(II) Spin Crossover Complexes for the Deposition on Surfaces	21	
	· Caging phenomena and collision induced desorption of trimethylamine from Ru(001) surfaces	2		<b>Magdassi, S.</b>	· Core-Shell metallic particles	22
	· Buffer layer assisted growth of TiO <sub>2</sub> nanoclusters	3			<b>Mandler, D.</b>	· Co-deposition of biocompatible polymers and sol-gel for biomedical Application
<b>Banin, U.</b>	· Solution Based Metal Growth on Colloidal InAs Nanocrystals	4	· Size-Controlled Deposition of Gold Nanoparticles on Thin Polyaniline Films by Scanning Electrochemical Microscopy			24
	· Quenching Tip Microscopy with Nanoscale Resolution	5	· Electroless Deposition by Scanning Electrochemical Microscopy	25		
<b>Bino, A.</b>	· Platinum group bimetallic nano-alloys	6	<b>Porath, D.</b>	· SP1 protein Nanoparticle Hybrids as Building block for NanoTechnology	26	
	· Nano-alloys of the Cobalt-platinum system	7		· Trapping single DNA molecules between electrodes	27	
<b>Blum, Y.</b>	· Highly selective reactions by a rhodium catalyst entrapped within ion liquid-confined silica sol-gel.	7	<b>Sasson, Y.</b>	· Abatement of elemental mercury from flue gas using ionic liquid based scrubber	28	
<b>Driess, M.</b>	· Zn/Li-Oxo Clusters as Efficient Precursors for Li-doped ZnO-Based Materials and Key Compounds for the Synthesis of New Heterobimetallic single-Source Precursors	9		· Phase Transfer Catalyzed Autoxidation of Toluenes	29	
	· Catalytically Active Molybdenum-Oxo Clusters: A Unique System for Modern Heterogeneous Catalysis and Material Science	10	<b>Strasser, P.</b>	· Nanoscale electrocatalysis for sensing and energy conversion	30	
	· Design of Heterogeneous Catalysts on the Molecular Scale: A Unique Way to High Quality Li-doped MgO and related Materials	11		<b>Thomas, A.</b>	· Nanostructured Metal Nitrides	31
	· Preparation of Highly Transparent and conductive Metal-doped tin Oxide as New and Efficient Alternative to Tin doped Indium Oxide	12	· Micro- and Mesoporous Polymers and Organic Frameworks		32	
<b>Friedler, A.</b>	· Using peptides to study the interaction between the p53 tetramerization domain and the HIV-1 Tat protein Using peptide arrays to study mechanisms of apoptosis	13	<b>Tshuva, E.</b>	· Synthesis, Structure, and Hydrolytic Behavior of Cytotoxic Ti(IV) Complexes: Towards Elucidating the Structure of the Active Species	33	
	· Structural and biophysical studies of the C-terminal domain of the HIV-1 Vif protein	14		· Towards Understanding Mechanistic Aspects of the Anticancer Activity of Titanium(IV) Complexes	34	
	· Structural and biophysical studies of the C-terminal domain of the HIV-1 Vif protein	15	<b>Willner, I.</b>	· DNA Nanostructures for Sensing, Machinery and Logic Gate Applications	35	
<b>Gelman, D.</b>	· Toward chiral trans-spanning ligands	16		· Nanoparticle Architectures on Surfaces as "Smart Materials" for Sensing and Information Storage and Processing	36	
	· Highly regioselective Heck reaction - trans-chelated palladium (poster)	17		<b>Yitzchaik, S.</b>	· Proton conduction in smart-gels	37
	· Highly regio- and enantioselective oxidative Heck-type reaction (poster or talk)	18			<b>Gradzielski, M.</b>	· Vesicle Gels as Templates in the Formation of Mesoporous Materials
	· Toward conformationally flexible chiral bidentate ligands – central-to-axial chirality switch (poster)	19				