

**4<sup>TH</sup> INTERNATIONAL CONFERENCE  
ON THE CHEMISTRY AND PHYSICS OF THE TRANSACTINIDE ELEMENTS**

*Sochi, Russia, 6-10 September 2011*

**Scientific Programme**

**September 6 (Tuesday)**

	<b>OPENING</b>
<i>Adam Sobiczewski, Warsaw</i>	International Year of Chemistry 2011- the 100th anniversary of the Nobel Prize in Chemistry awarded to Madame Marie Curie-Skłodowska
<i>Jens Volker Kratz, Mainz</i>	The Impact of Superheavy Elements on the Chemical and Physical Sciences
<i>Yuri Oganessian, Dubna</i>	Superheavy elements in Dubna
<i>Sigurd Hofmann, Darmstadt</i>	Physics experiments on superheavy elements at the GSI SHIP
<i>Vladimir Utyonkov, Dubna</i>	New data on production of the isotopes of element 115 in the reaction $^{243}\text{Am} + ^{48}\text{Ca}$
<i>Charles Folden III, College Station</i>	The Role of Energy in the Formation of the Heaviest Elements
<i>Heinz Gaggeler, Villigen</i>	Revival of deep inelastic transfer reactions for production of neutron-rich isotopes of heavy elements
<i>Walter Greiner, Frankfurt on Main</i>	Nuclear Clusters: Superheavy, Neutron Rich, of Matter, Antimatter, Strange Matter
<i>Jacklyn Gates, Berkeley</i>	Superheavy Element Research at the Berkeley Gas-Filled Separator
<i>Katsuhisa Nishio, JAEA, Tokai</i>	Nuclear orientation in fusion and synthesis of heavy elements at sub-barrier energy
<i>Galina Knyazheva, Dubna</i>	Qasifission of superhevy composite systems in reactions with heavy ions
<i>Roman Sagaidak, Dubna</i>	Fusion probability and survivability in estimates of heaviest nuclei production

**September 7 (Wednesday)**

<i>Yuichiro Nagame, JAEA, Tokai</i>	Liquid Phase Experiments with the Heaviest Elements
<i>Robert Eichler, Villigen</i>	First foot prints of chemistry on the shore of The Island of SHE
<i>Qin Zhi, Lanzhou</i>	Gas-phase chemistry of Db with bromine
<i>Sergey Dmitriev, Dubna</i>	FLNR Radiochemical Research. Latest Experiments

<i>Ivo Zvara, Dubna</i>	Prospects of SHE Chemistry Studies Using Vacuum Thermochemistry
<i>Andreas Türler, Garching</i>	Nuclear and Chemical Studies with Hassium Isotopes
<i>Rugard Dressler, Villigen</i>	PURECOLD fast electronics for $\beta$ - $\alpha$ -pile-up suppression – first on-line measurements

<i>Valeria Pershina, Darmstadt</i>	Recent achievements in the electronic structure studies on the heaviest elements
<i>Pekka Pyykko, Helsinki</i>	The Periodic System continued to Z=172
<i>Anastasia Borschevsky, Auckland &amp; Darmstadt</i>	Benchmark Calculations of Atomic Properties of Elements 113 to 122
<i>Anatoly Titov, Gatchina</i>	Relativistic DFT and ab initio calculations on the seventh-row superheavy elements: subperiod E113–E114
<i>Josef Anton, Ulm</i>	Adsorption behavior of super-heavy elements ( $Z \geq 112$ ) on gold surfaces
<i>Jun Li, Beijing</i>	Relativistic Effects Alter the Periodicity of Superheavy Elements

**September 8 (Thursday)**

<i>Christoph Düllmann, Mainz &amp; Darmstadt</i>	Superheavy element research at GSI
<i>Megan Bennett, Livermore</i>	Extraction Chromatographic Studies of Rutherfordium Homologs using Crown Ether Based Resins
<i>Roger Henderson, Livermore</i>	Automated Chemistry Efforts for Aqueous Chemistry Studies of the Heaviest Elements
<i>Klaus Eberhardt, Mainz</i>	Preparation and characterization of actinide targets for superheavy element production
<i>Hiromitsu Haba, Nishina, Wako</i>	Production of $^{265}\text{Sg}$ for chemical studies using the gas-jet transport system coupled to the RIKEN gas-filled recoil ion separator
<i>Rolf-Dietmar Herzberg, Liverpool</i>	Spectroscopy of very heavy nuclei
<i>Lise-Lotte Andersson, Liverpool</i>	Multi-Coincidence Spectroscopy of SHE using the TASISpec Setup
<i>Dieter Ackermann, Darmstadt</i>	$^{270}\text{Ds}$ and Its Decay Products – Decay Properties and Experimental Masses
<i>Masato Asai, JAEA, Tokai</i>	Alpha-gamma and high-resolution $\alpha$ fine-structure spectroscopy for the heaviest nuclei
<i>Adam Sobiczewski, Warsaw</i>	Properties of superheavy nuclei
<i>Yoshihiro Aritomo, JAEA, Tokai &amp; FLNR, Dubna</i>	Dynamical mechanism of fusion-fission process in superheavy mass region
<i>Alexander Karpov, Dubna</i>	Decay properties and stability of heaviest elements
<i>Friedrich-K. Thielemann, Basel</i>	Did Nature Produce Superheavy Elements?
<i>Igor Panov, Moscow</i>	SHE formation in rapid nucleosynthesis and nuclear reaction rates

**September 9 (Friday)**

<i>Paul-Gerhard Reinhard, Erlangen</i>	A survey of super-heavy elements from a theoretical perspective
<i>Valery Zagrebaev, Dubna</i>	Heavy and superheavy neutron-rich nuclei
<i>Enrique Minaya Ramirez, Darmstadt</i>	Nuclear mass exploration at the doorway to the region of superheavy elements
<i>Kosuke Morita, Nishina, Wako</i>	Study of the heaviest elements at RIKEN, status and perspective
<i>Mikhail Itkis, Dubna</i>	Prospects for JINR development
<i>Christoph Scheidenberger, Darmstadt</i>	Transactinide research at GSI
<i>Sidney Gales, Caen</i>	Super Heavy Elements research at GANIL: Past and Future
<i>James Roberto, Oak Ridge</i>	Capabilities and priorities for transactinide research and related actinide target development at Oak Ridge National Laboratory

**September 10 (Saturday)**

<i>David Wittwer, Bern &amp; Villigen</i>	Thermal release of p-elements from metal matrices
<i>Julia Even, Mainz &amp; Darmstadt</i>	Metal-Carbonyl-Complexes: A Metal-Organic Compound Class within the Reach of Transactinide Chemistry
<i>Nozomi Sato, JAEA, Tokai</i>	Development of a surface ionizer to measure the first ionization potential of Lr
<i>Benoit Gall, Strasbourg</i>	Spectroscopy of very heavy elements at the limits with the Super Separator Spectrometer S3
<i>Alexander Yeremin, Dubna</i>	SHELLS - Separator for Heavy Element Spectroscopy
<i>Philippos Papadakis, Liverpool</i>	SAGE Spectrometer: Status and First Results

<i>Alexander Rodin, Dubna</i>	Mass spectrometer MASHA – testing results on the heavy ion beam
<i>Madhavan Narayanasamy, New Delhi</i>	Limits of angular momentum in heavy evaporation residues using HYRA gas-filled separator and TIFR $4\pi$ spin spectrometer at IUAC, New Delhi
<i>Mark Stoyer, Livermore</i>	Using Monte Carlo Methods to Estimate Super Heavy Element Event Random Probabilities
<i>Shan Jiang, Beijing</i>	Accelerator Mass Spectrometry and Its Measurements for Long-lived Heavy and Transactinide Nuclides
<i>Hiroyuki Koura, JAEA, Tokai</i>	Decay modes and a limit of existence of nuclei in the nuclear mass region
	<b>CLOSING</b>