



Working Group 1 meeting

Hotel Örk, Hveragerði, Iceland, July 21-22, 2023

Friday, July 21

14 ¹⁵ – 14 ³⁰	Meeting opening
14 ³⁰ – 16 ⁰⁰	<u>Afternoon session I: Electron-, photon- and ion collisions with biomolecular systems</u> (Chair: Thomas Schlathölter) Ilia Solov'yov , Institute of Physics, Carl von Ossietzky University Oldenburg, Germany <i>Modelling photoinduced electron transfers in complex molecular systems</i> Franck Lépine , Institut Lumière Matière, Université Claude Bernard Lyon 1, Villeurbanne, France <i>First instants following XUV ionization in complex (bio-)molecules: towards attosecond experiments in proteins and DNA</i> Hidetsugu Tsuchida , Quantum Science and Engineering Center, Kyoto University, Japan <i>Damage process of nucleotide molecules in water by ion irradiation</i>
16 ⁰⁰ – 16 ³⁰	Coffee break
16 ³⁰ – 18 ⁰⁰	<u>Afternoon session II: Collision, radiative and fragmentation processes</u> (Chair: Himadri Chakraborty) Thomas Schlathölter , Zernike Institute for Advanced Materials, University of Groningen, Groningen, The Netherlands <i>Implementation of a compact source for mass selected and conformationally pure biomolecular clusters</i> Luca Gerhards , Carl von Ossietzky University Oldenburg, Oldenburg, Germany <i>Modelling collision processes in complex molecular systems using VIKING</i> Filipe Ferreira da Silva , Universidade NOVA de Lisboa, Caparica, Portugal <i>Boron complexes stability under electron interactions</i>

Saturday, July 22

09 ³⁰ – 11 ⁰⁰	<u>Morning session I: Electron-, photon- and ion collisions with clusters and nanoparticles</u> (Chair: Hannes Jónsson) Himadri Chakraborty , Northwest Missouri State University, Maryville, USA <i>Femtosecond to attosecond electron dynamics in fullerene materials</i> Jefferson Shinpaugh , Department of Physics, East Carolina University, Greenville, USA <i>Nanostructured gold as a radiosensitizer for irradiation by ions</i> Matthew Dickers , School of Physics and Astronomy, University of Kent, Canterbury, UK <i>Atomistic modelling and structural characterisation of coated gold nanoparticles for biomedical applications</i>
11 ⁰⁰ – 11 ³⁰	Coffee break
11 ³⁰ – 13 ⁰⁰	<u>Morning session II: Collision induced processes with organometallic molecules</u> (Chair: Nigel Mason) Alexey Verkhovtsev , MBN Research Center, Frankfurt am Main, Germany <i>Irradiation-induced fragmentation of organometallic complexes studied by means of reactive molecular dynamics</i>

	<p>Matija Zlatar, Department of Chemistry, University of Belgrade, Belgrade, Serbia <i>Quantum chemical insight into excited states of organometallic molecules</i></p> <p>Oddur Ingólfsson, Science Institute and Department of Chemistry, University of Iceland, Reykjavík, Iceland <i>Low energy electron induced fragmentation and formation of gold containing deposits from $(CH_3)AuP(CH_3)_3$ and $[(CH_3)_2AuCl]_2$ by focused electron beam induced deposition</i></p>
13 ⁰⁰ – 14 ³⁰	Lunch
14 ³⁰ – 16 ⁰⁰	<p><u>Afternoon session I: Collision and radiation-induced chemistry processes</u> (Chair: Matija Zlatar)</p> <p>Nigel Mason, School of Physics and Astronomy, University of Kent, Canterbury, UK <i>Clusters, aerosols and microdroplets – Complex chemistry revealed</i></p> <p>Józef Sienkiewicz, Gdansk University of Technology, Gdansk, Poland <i>Optimization of the femtosecond laser impulse for excitation and the spin-orbit mediated dissociation in the NaRb dimer</i></p> <p>Anatoli Popov, Institute of Solid State Physics, University of Latvia, Riga, Latvia <i>Distinctive features of point defect annealing in irradiated ceramic materials</i></p>
16 ⁰⁰ – 16 ¹⁰	Meeting closing