

# Radiation Damage In Biomolecular Systems

## RADAM Conference 2005

16th-20th March 2005, Potsdam near Berlin, Germany

[www.radam05.org](http://www.radam05.org)

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## Programme

(Tutorial contributions are denoted T)

### Wednesday 16th March

Afternoon      Arrival and Registration  
19:00 - 20:00      Dinner

### Thursday 17th March

08:00 - 08:45	<i>Breakfast</i>	
09:00 - 09:30	Opening	Nico Stolterfoht and Nigel Mason
	Chair: Nico Stolterfoht	
09:30 - 10:10	Modelling transient negative ion formations in gas-phase biosystems (T)	Franco Gianturco <i>CASPUR, Roma, Italy</i>
10:10 - 10:40	<i>Coffee Break</i>	
	Chair: Kevin McGuigan	
10:14 - 11:10	Ionizing radiation track structure and DNA damage (T)	Melvyn Folkard <i>Gray Cancer Institute, Northwood, UK</i>
11:10 - 11:40	The use of isotope and site labelling for the identification of DEA peaks in biomolecules (T)	Paul Scheier <i>Universität Innsbruck, Austria</i>
11:40 - 12:05	Photo-absorption measurements of protein chromophores in vacuo	Lars Andersen <i>University of Aarhus, Denmark</i>
12:15 -	<i>Lunch and free time</i>	
	Chair: David Field	
14:00 - 14:20	Ab initio calculation of the potential energy surfaces describing electron transfer in a stack dimer of DNA bases	Emilie Cauët <i>Université Libre de Bruxelles, Belgium</i>
14:20 - 14:40	Ion-biomolecule collisions: Fragmentation products and cross Sections	John Sabin <i>University of Odense, Denmark</i>

## Thursday 17th March continued...

14:40 - 15:00	Absolute cross sections for the fragmentation of water molecules in collisions with slow He <sup>2+</sup> ions	Przemek Sobociński <i>Hahn-Meitner-Institut, Berlin, Germany</i>
15:00 - 15:20	Ion irradiation of DNA	Sandrine Lacombe <i>Université Paris Sud, Orsay, France</i>
15:20 - 15:50	<i>Coffee Break</i>	
	Chair: Bratislav Marinkovic	
15:50 - 16:20	Low and high energy radiation femtochemistry of biological interest (T)	Yann A. Gauduel <i>Ecole Polytechnique Palaiseau, Paris, France</i>
16:20 - 16:40	Low energy electron interactions with porphine derivates	Sylwia Ptasińska <i>Universität Innsbruck, Austria</i>
16:40 - 17:05	Energy deposition model at molecular level in tissue equivalent materials	Gustavo Garcia <i>CSIC, Madrid, Spain</i>
	Chair: Ronnie Hoekstra	
17:05	Poster Introduction	
18:15	Session End	
19:00 - 20:00	<i>Dinner</i>	
20:00 -	Poster Session	

## Friday 18th March

08:00 - 08:45	<i>Breakfast</i>	
	Chair: Eugen Illenberger	
09:00 - 09:40	Conical intersections of potential-energy surfaces and ultra fast deactivation of excited electronic states (T)	Wolfgang Domcke <i>Technische Universität München, Germany</i>
09:40 - 10:20	Which radiation track structure properties couple physics interactions to biology effects (T)	Herwig Paretzke <i>Institut für Strahlenschutz, Neuherberg, Germany</i>
10:20 - 10:50	<i>Coffee Break</i>	
	Chair: Marie-Christine Bacchus	
10:50 - 11:25	DNA damage, repair and mutagenesis (T)	Evelyne Sage <i>Institute Curie, Paris, France</i>
11:25 - 12:00	Radiation-induced bystander responses (T)	Kevin Prise <i>Gray Cancer Institute, Northwood, UK</i>
12:15 - 13:00	<i>Lunch and free time</i>	
14.00 – 18.00	Excursion to Potsdam	
19:00 - 20:00	<i>Dinner</i>	
20:00 -	Poster Session	

## Saturday 19th March

08:00 - 08:45	<i>Breakfast</i>	
	Chair: Michel Farizon	
09:00 - 09:35	Supramolecular and subcellular effects of ionizing radiation (T)	Bojidar Galutzov <i>Sofia University, Sofia, Bulgaria</i>
09:35 - 10:10	Radiolysis of DNA binding proteins and functional consequences (T)	Melanie Spotheim-Maurizot <i>CBM, Orleans, France</i>
10:10 - 10:30	Effect of estrogen receptor on radiation-induced damage to DNA	Ing. Viktorie Stisova <i>Nuclear Physics Institute, Prague, Czech Republic</i>
10:30 - 11:00	<i>Coffee Break</i>	
	Chair: Rita Plukiene	
11:00 - 11:40	Biomolecular ions in accelerators and storage rings (T)	Preben Hvelplund <i>University of Aarhus, Denmark</i>
11:40 - 12:00	Ion induced fragmentation of DNA building blocks: isolated molecules and clusters	Thomas Schlathölter <i>KVI, Groningen, The Netherlands</i>
12:15 - 14:05	<i>Lunch and Free Time</i>	
	Chair: Bela Sulik	
14:05 - 14:30	Sources traps and rings which can be used for radiation damage experiments at the molecular level (T)	Hendrik Cederquist <i>Stockholm University, Stockholm, Sweden</i>
14:30 - 15:10	Ion-induced fragmentation and aggregation of small biomolecular systems (T)	Bernd Huber <i>CIRIL, Caen, France</i>
15:10 - 15:45	Formation of ionization clusters in nanometric targets by electrons (T)	Berndt Grosswendt <i>PTB, Braunschweig, Germany</i>
15:45 - 16:10	Microdosimetric measurements of track structure quantities	Stanislaw Pszona <i>Soltan Institute, Otwock/Swierk, Poland</i>
16:10 - 16:40	<i>Coffee Break</i>	
	Chair: Nigel Mason	
16:40 - 17:05	Microscopic target structures in the biophysical simulation of radiation effects in cells	Werner Friedland <i>GSF, Neuherberg, Germany</i>
17:05 - 17:30	Modelling the evolution of radiobiological damage with focus on target structures	Andrea Ottolenghi <i>Università degli Studi di Pavia, Italy</i>
17:30 - 17:50	Free radical DNA damage and repair - a chemical perspective	Clemens von Sonntag <i>MPI</i>
17:50 - 18:10	Final Remarks and Goodbye	Herwig Paretzke <i>Institut für Strahlenschutz, Neuherberg, Germany</i>
19:00 - 20:00	<i>Dinner</i>	

## **Sunday 20th March**

08:00 - 09:00      *Breakfast*  
09:00 – 11:00      Committee meeting  
Morning: departure