

# **PROGRAMME**

## Friday, August 28 2009

14:00-19:00 Registration

19:00 Welcome dinner

21:00 **Session I**

*Chair: James F. Wishart*

**Ortwin Brede**, S. Naumov (Germany)

Free electron transfer – relations between molecule dynamics and reaction kinetics

## Saturday, August 29 2009

08:30 **Session II** Early career scientists

*Chair: Mélanie Spothem-Maurizot*

**Shinichi Yamashita**, Y. Katsumura, T. Maeyama, M. Lin, Y. Muroya, T. Murakami, (Japan) J. Meesungnoen, J.-P. Jay-Gerin (Canada)

Water radiolysis with heavy ions

**Guy Yardeni**, I. Zilbermann, E. Maimon, L. Kats, H. Cohen, D. Meyerstein (Israel)

Redox reactions of cerium complexes in aqueous solutions

**Maria Vyushkova**, V. A. Bagryansky, Y. N. Molin (Russia)

Peculiarities of proton transfer reaction of sterically hindered amine radical cations studied by optically detected EPR in irradiated solutions

**Alexey V. Kobzareno**, I. A. Baranova, I. V. Tyulpina, V. I. Feldman (Russia)

Radiation-induced transformations of acetylenic hydrocarbons in solid noble gas matrices

**Angel Contreras-García**, E. Bucio (Mexico), C. A.-Lorenzo, A. Concheiro (Spain)

Synthesis of novel stimuli responsive copolymer containing NIPAAm and APMA onto PP films by one step  $\gamma$ -ray irradiation

**Richard M. Watson**, W. A. Bernhard (USA)

Novel analytical technique to study nucleobase influence on DNA strand breaks caused by direct ionizing radiation

**Andrej Maroz**, S. Shinde, W. A. Denny, B. D. Palmer, R. F. Anderson (New Zeland)

Release of nitrite from the antitubercular bioreductive drug PA-824 and analogs upon one-electron reduction in protic, low dielectric medium

**Ioana Stanculescu**, M. Cutrubinis, C. D. Negut, I. V. Moise (Romania)

*In silico* study of cellulose radicals produced by gamma irradiation

10:30 Coffee break

11:00 **Session III**

*Chair: Róbert Schiller*

**David Bartels** (USA)

Hydrated electron absorption in high temperature water: is oscillator strength conserved?

**Joseph Rabani** (Israel)

The nature of holes in carbon doped titania

13:00 Lunch break

17:00 **Session IV**

*Chair: Israel Zilbermann*

**Nicolas Green**, A. Agarwal (UK)

Competition between ion recombination and scavenging

- 18:00 Dinner
- 19:30 **Session V** *Chair: Vladimir Feldman*
- Mehran Mostafavi** (France)  
Scavenging of  $e_s^-$  and  $OH^\cdot$  radicals in concentrated acidic aqueous solutions. A new mechanism for reactivity of  $U^V$  in acidic solution
- Masanori Tachiya** (Japan)  
Stochastic treatment of exciton decay dynamics in quantum dots and nanotubes

## Sunday, August 30

- 08:30 **Session VI** *Chair: Yury Molin*
- Dan Meyerstein** (Israel)  
Reactions of radicals at surfaces: radicals on powders and nano-particles in aqueous suspensions
- Mohammad Haji-Saeid**, A. Safrany, M.H.O. Sampa, N. Ramamoorthy (IAEA)  
IAEA role in radiation technology support for advanced materials development and cleaner industrial processes
- 10:30 Coffee break
- 11:00 **Session VII** *Chair: Mats Jonsson*
- Salvatore Emmi**, B. Esposito, M. Saracino (Italy)  
Cleaning water by AOPs: an update
- Bumsoo Han**, J. K. Kim, Y. R. Kim (Republic of Korea), N. Zommer (USA)  
Wastewater treatment with electron beam
- 13:00 Lunch break
- 14:00 Organized trip to visit the city (optional)
- 18:00 Dinner
- 19:30 **Poster Session**

## Monday August 31

- 08:30 **Session VIII** *Chair: Simon Pimblott*
- Ian Carmichael** (USA), E. F. Garman (UK)  
Radiation damage: from amino acids to proteins
- Chrysostomos Chatgililoglu** (Italy)  
Tautomerism in the guanyl radical and related systems
- 10:30 Coffee break
- 11:00 **Session IX** *Chair: Elspeth F. Garman*
- Melanie Spothem-Maurizot**, S. Goffinont, D. Genest (France), M. Davidkova (Czech Republic)  
Radiation-induced damage to DNA-protein complexes
- Krzysztof Bobrowski** (Poland)  
Radiation induced reactions involving sulfur-centered radicals
- 13:00 Lunch break

15:00 Conference outing to Castle Sümeg

## Tuesday September 1

08:30 **Session X** *Chair: Mohamad Al-Sheikhly*  
J. Dzierzawska, S. Kadlubowski, A. Kaszubska, J. Komasa, A. K. Olejnik, B. Rokita, K. Sobczyk, **Piotr Ulanski**, R. A. Wach, J. M. Rosiak (Poland), D. Grijpma (The Netherlands), P. Lenas (Spain)  
Application of radiation for synthesis, modification and sterilization of polymeric biomaterials  
**John M. Warman**, M. P. de Haas, Le. H. Luthjens (The Netherlands)  
Radio-fluorogenic co-polymerization: a new (chemical) method of dose monitoring and imaging

10:30 Coffee break

11:00 **Session XI** *Chair: Peter O'Neill*  
**Yuri Berlin** (USA)  
Charge transport in dynamic DNA  
**Virender K. Sharma**, R. A. Yngard (USA)  
Reactivity of oxyiron (VI, V, and VI) with inorganic and organic compounds in aqueous solution: pulse radiolysis studies

13:00 Lunch break

18:00 Dinner

19:30 **Session XII** *Chair: Eberhard Janata*  
**Xavier Coqueret**, M. Krzeminski, M. Molinari, M. Troyon (France)  
Quantitative and multiscale assessment of network structure in UV- and EB-polymerized multiacrylates  
**Mohamad Al-Sheikhly**, J. Silverman (USA)  
The synthesis of polymer nano-hydrogels using pulsed electron beams

## Wednesday September 2

07:00 Breakfast

09:00 Departure of transfer bus to Budapest