First International Conference on Ionizing Processes (ICIP-2016)

Brookhaven National Laboratory
and Riverhead, Long Island

October 10-14, 2016

Schedule

Monday, October 10, 2016

3:00 – 6:00 pm	Registration at the Hyatt Place East End Hotel, Lobby
6:00 – 7:30 pm	Dinner at the Aquarium (for those who signed up)
7:30 – 7:45 pm	**Welcoming remarks and orientation** **James Wishart,** ICIP-2016 Chair
7:45 – 9:15 pm	**Session 1: Advances in methods and their applications** Sea Star Ballroom North, Sea Star Building, Third Floor Discussion Leader: **Dianne Poster,** National Institute of Standards and Technology
7:45 – 8:30 pm	**Ireneusz Janik,** Notre Dame Radiation Laboratory *Vibrational characterization of OH-adduct reaction intermediates in aqueous solutions*
8:30 – 9:15 pm	**Khashayar Ghandi,** Mount Allison University *Muon radiation methods as complementary techniques to pulse radiolysis methods*

Tuesday, October 11, 2016

6:30 – 7:45 am	Complementary breakfast at the Hyatt Place East End Hotel (for guests)
7:45 am	Buses depart hotel for BNL. If you have not checked in to BNL yet, bring the required identification items (e.g., ID, Passport, visa/visa waiver stamp, Green Card, etc.) that were specified in your guest approval email. U.S. citizens: driver's license or passport/passport card. If you have already been issued a BNL badge, remember to bring it!
8:15 – 8:50 am	Check-in for foreign conferees (bring passports and visas/green cards) Guest, User, Visitor (GUV) Center, Building 400 First Floor Cross the street to Berkner Hall when finished
9:00 – 9:20 am	**Welcome addresses** Berkner Auditorium, Berkner Hall (Building 488) Presiding: **James Wishart,** ICIP-2016 Chair **Doon Gibbs,** Director, Brookhaven National Laboratory **Frank Crescenzo,** DOE Brookhaven Site Office Manager
9:20 am – 12:45 pm	**Session 2: Creating materials with radiation** Berkner Auditorium, Berkner Hall (Building 488) Discussion Leader: **Mohamad Al-Sheikhly,** University of Maryland
9:20 – 10:05 am	**Piotr Ulanski,** Łodz University of Technology *Polymer-based nanomaterials synthesized by radiation technique - some steps towards more complex products and advanced research tools*
10:05 – 10:50 am	**Clelia Dispenza,** University of Palermo *Temporal control of xyloglucan self-assembly by radiation-induced degradation*
10:50 – 11:15 am	**Group photo**, then coffee break, Berkner Lobby
11:15 – 12:00 noon	**Lisa Karam,** National Institute of Standards and Technology *Snip and Stick: Using ionizing radiation in materials synthesis and evaluation*
12:00 – 12:45 pm	**Axel Kahnt,** Friedrich-Alexander University, Erlangen-Nürnberg *Radiation Chemical Modification of Carbon Nanodots*
12:45 – 1:30 pm	No-host lunch, Berkner Cafeteria

Tuesday, October 11, 2016 (continued)

1:30 – 3:00 pm	**Session 3: Consequences of highly mobile transient species** Berkner Auditorium, Berkner Hall (Building 488) Discussion Leader: **Richard Holroyd,** Brookhaven National Laboratory
1:30 – 2:15 pm	**Mariusz Wojcik,** Łodz University of Technology *On the applicability of high-mobility molecular liquids to directional dark-matter detectors*
2:15 – 3:00 pm	**Andrew Cook,** Brookhaven National Laboratory *Exceptionally rapid capture of radical cations made by pulse radiolysis at LEAF*
3:00 – 5:30 pm	**BNL Facility Tours.** Participants will divide up into three groups, coded by letters A, B and C, which will rotate every 45 minutes between the Accelerator Center for Energy Research (ACER), the Center for Functional Nanomaterials (CFN) and the National Synchrotron Light Source II (NSLS II). Each group will visit all three locations.
5:30 – 6:00 pm	Bus transport back to Hyatt Place
6:00 – 7:15 pm	Buffet dinner in the Sea Star Ballroom South (for those who signed up)
7:15 – 9:15 pm	**Session 4: Young Investigator Session 1** Sea Star Ballroom North, Sea Star Building, Third Floor Discussion Leader: **Mehran Mostafavi,** Université Paris-Sud
7:15 – 7:35 pm	**Travis Dietz,** University of Maryland *Azo and oxalate functionalization of polyamide fabrics for uranium recovery from seawater*
7:35 – 7:55 pm	**Ileana M. Pazos,** University of Maryland *Synthesis and characterization of functional polymer nanogels using pulsed-electron beam ionizing irradiation*
7:55 – 8:15 pm	**Zhenpeng Cui,** Université Paris-Sud *Preparation of nanostructured conducting polymers and nanocomposites by gamma-irradiation for electronic and photoelectronic applications*
8:15 – 8:35 pm	**Konrad Skotnicki,** Institute of Nuclear Chemistry and Technology *Radiation induced radical processes involving new class of cancer chemotherapeutics - quinoxalinones*
8:35 – 8:55 pm	**Furong Wang,** Université Paris-Sud *Ultrashort-lived radical cation of water, $H_2O^{\cdot+}$: Enhanced oxidation path by isotopic effect*
8:55 – 9:15 pm	**Matthew Bird,** Brookhaven National Laboratory *Obtaining redox potentials without any electrolyte by studying one electron charge transfer equilibria with pulse radiolysis*

Wednesday, October 12, 2016

6:30 – 7:50 am	Complementary breakfast at the Hyatt Place East End Hotel (for guests)
7:50 am	Buses depart hotel for BNL. Remember to bring your BNL badge to get on the bus!
8:30 – 12:00 noon	**Session 5: Interfaces and nuclear applications (1)** Berkner Auditorium, Berkner Hall (Building 488) Discussion Leader: **Jacqueline Belloni,** Université Paris-Sud
8:30 – 9:15 am	**Jay A. LaVerne,** Notre Dame Radiation Laboratory *Interfacial Radiation Effects in Waste Storage*
9:15 – 10:00 am	**Mats Jonsson,** KTH Royal Institute of Technology *Interfacial Radical Chemistry Induced by Molecular Aqueous Radiolysis Products Interacting with Oxide Surfaces*
10:00 – 10:30 am	Coffee break, Berkner Lobby
8:30 – 12:00 noon	**Session 6: Interfaces and nuclear applications (2)** Berkner Auditorium, Berkner Hall (Building 488) Discussion Leader: **David Bartels,** Notre Dame Radiation Laboratory
10:30 – 11:15 am	**Cécile Sicard-Roselli,** Université Paris-Sud *New insights about gold nanoparticle radiosensibilization mechanism*
11:15 – 12:00 noon	**Bruce J. Mincher,** Idaho National Laboratory *Factors controlling radiolytic stability of amide-functionalized separations agents*
12:00 – 12:45 pm	**Jing Peng,** Peking University *Radiation effects on the ionic liquids and ionic liquid/extractant for spent fuel reprocessing*
12:45 – 1:30 pm	No-host lunch, Berkner Cafeteria
1:30 – 3:45 pm	**Session 7: Fundamental processes** Berkner Auditorium, Berkner Hall (Building 488) Discussion Leader: **Seiichi Tagawa,** Osaka University
1:30 – 2:15 pm	**Simon Pimblott,** University of Manchester *Radiation track structure and the charge cycling of ions in nuclear materials*

Wednesday, October 12, 2016 (continued)

2:15 – 3:00 pm	**Jean-Louis Marignier,** Université Paris-Sud *Direct evaluation of the absorption coefficient of the hydrated electron by the isosbestic points method*
3:00 – 3:45 pm	**Masao Gohdo,** Osaka University *Pulse radiolysis study of polystyrene dimer phenyl cation radical in THF*
3:45 – 5:15 pm	**Poster Session 1,** Berkner Lobby. Odd-numbered posters will be defended.
5:15 – 6:00 pm	Bus transport back to Hyatt Place
6:00 – 7:30 pm	Buffet dinner in the Sea Star Ballroom South (for those who signed up)
7:15 – 9:15 pm	**Session 8: Young Investigator Session 2** Sea Star Ballroom North, Sea Star Building, Third Floor Discussion Leader: **Sylwia Ptasinska,** Notre Dame Radiation Laboratory
7:15 – 7:35 pm	**Soumen Das,** University of Central Florida *Molecular mechanisms of radiomodification by nanoceria*
7:35 – 7:55 pm	**Jamie Southworth,** University of Manchester *Investigation of anomalous H_2 production from water adsorbed on metal oxides*
7:55 – 8:15 pm	**Zhou L. Kastner,** Notre Dame Radiation Laboratory *Amide bond cleavage in formamide and its methylated derivatives upon dissociative electron attachment*
8:15 – 8:35 pm	**Michal Ryszka,** Notre Dame Radiation Laboratory *Low energy electron-induced fragmentation of nicotine and* N-*methylpyrrolidine*
8:35 – 8:55 pm	**Gregory P. Horne,** California State University at Long Beach *Re-evaluation of neptunium-nitric acid radiation chemistry by multi-scale modeling*
8:55 – 9:15 pm	**Holger Schmidt,** Forschungszentrum Jülich *γ-Radiolysis of the nitrogen donor ligands CyMe4BTBP and CyMe4BTPhen*

Thursday, October 13, 2016

6:30 – 7:50 am	Complementary breakfast at the Hyatt Place East End Hotel (for guests)
7:50 am	Buses depart hotel for BNL. Remember to bring your BNL badge to get on the bus!
8:30 – 12:00 noon	**Session 9: Peptides, proteins and enzymes** Berkner Auditorium, Berkner Hall (Building 488) Discussion Leader: **Krzysztof Bobrowski,** INCT, Warsaw
8:30 – 9:15 am	**Diane E. Cabelli,** Brookhaven National Laboratory *Superoxide, Cu,Zn Superoxide Dismutase and, now, Cu only Superoxide Dismutase*
9:15 – 10:00 am	**Chantal Houée-Lévin,** Université Paris-Sud *Methionine one-electron oxidation: some approaches by quantum chemistry and molecular dynamics*
10:00 – 10:30 am	Coffee break, Berkner Lobby
10:30 – 11:15 am	**Christian Schoneich,** University of Kansas *Novel redox modifications of proteins relevant for the stability of biotechnology products*
11:15 – 12:00 noon	**Ian Carmichael,** Notre Dame Radiation Laboratory *Radiation Damage to Macromolecules at Synchrotrons and XFELs*
12:00 – 12:45 pm	No-host lunch, Berkner Cafeteria
12:45 – 1:45 pm	**Conference Business Meeting** Berkner Auditorium, Berkner Hall (Building 488) Discussion Leader: **James Wishart**
1:45 – 3:15 pm	**Poster Session 2,** Berkner Lobby. Even-numbered posters will be defended.
3:15 – 3:45 pm	Bus transport back to Hyatt Place
3:45 – 6:00 pm	Free time
6:00 – 8:00 pm	Conference Dinner at the Aquarium (for those who signed up, open bar)
8:00 – whenever	Open evening. Recommended venue: Jerry and the Mermaid, just a few steps east of the hotel (open until 9 pm, or later if you keep them busy).

Friday, October 14, 2016

6:30 – 7:50 am	Complementary breakfast at the Hyatt Place East End Hotel (for guests) Check out of the hotel if you are not staying tonight, and put your luggage on the bus. (Allow time for checking out – there are a lot of us at the hotel.) The luggage will stay on the bus at BNL and it will be unloaded when you are dropped off at your transportation connection point (i.e., Ronkonkoma LIRR station). Therefore, remember which bus your luggage is on.
7:50 am	Buses depart hotel for BNL. Remember to bring your BNL badge to get on the bus!
8:30 – 12:00 noon	**Session 10: Radiation chemistry in service of energy applications** Berkner Auditorium, Berkner Hall (Building 488) Discussion Leader: **John Miller,** Brookhaven National Laboratory
8:30 – 9:15 am	**Dipak Palit,** Bhabha Atomic Research Centre *Dynamics of Hydrogen Bond in Associated Liquids using Visible, IR and THz Spectroscopic Techniques based on Ultrafast Lasers and Accelerators*
9:15 – 10:00 am	**Sophie Le Caër,** CEA Saclay *Radiolysis as a solution for accelerated ageing studies in lithium-ion batteries*
10:00 – 10:30 am	Coffee break, Berkner Lobby
10:30 – 11:15 am	**Dmitry Polyansky,** Brookhaven National Laboratory *Application of Pulse Radiolysis for Mechanistic Studies of Chemical Transformations in Artificial Photosynthesis*
11:15 – 12:00 noon	**Tomoyasu Mani,** University of Connecticut *Intra- and intermolecular electron delocalization probed by vibrational spectroscopy*
12:00 – 12:45 pm	No-host lunch, Berkner Cafeteria
12:45 pm	**Transportation to Ronkonkoma LIRR Station** Remember which bus your luggage is on and board that one. People staying at the Hyatt on Friday night will be returned there. (Reserve/confirm your place on the bus at the conference desk by Thursday. Special requests will be considered. Car services can be booked if needed.)