



# Call For Papers

## 8th International Conference on Isotopes and Expo

*Hosted by the American Nuclear Society*

**August 24 - 28, 2014 Chicago, IL Hyatt Regency Hotel**

The International Conference on Isotopes began in 1995 and is now convened once every three years to highlight the importance of nuclear science, medicine, and technology in advancing human health and protection of the environment. The 8th International Conference on Isotopes and Expo (8ICI) is hosted by the American Nuclear Society (ANS) under the auspices of the World Council on Isotopes. It will be held at the Hyatt Regency Hotel Chicago, IL, 24 to 28 August 2014. 8ICI is a premier international event and is expected to attract well over 500 specialists from the US and abroad. There will be over 300 scientific/technical presentations in plenary sessions, parallel sessions, and poster sessions with additional panel and discussion sessions bringing together the business and scientific/technical interests of exhibitors and participants.

Supporting organizations include the International Atomic Energy Agency, the Organization for Economic Cooperation and Development/Nuclear Energy Agency, the Argonne National Laboratory, and the ANS Accelerator Applications, Biology & Medicine, and Isotope & Irradiation Divisions.

### ABSTRACT INFORMATION

Submission period: January 1, 2014–February 14, 2014

Author notification of Acceptance: by March 21, 2014

Revised abstracts due: April 2014

### FORMAT

Authors are required to use the 8ICI Template and “Guidelines for Abstract Preparation” provided on the 8ICI web site ([www.8ici.org/pubs/abstract](http://www.8ici.org/pubs/abstract)). Abstracts must be submitted electronically using Adobe Acrobat (PDF) files or original Microsoft Word documents and the 8ICI/ANS Electronic Paper Submission and Review System. [www.8ici.org](http://www.8ici.org)

Please submit abstracts describing work that is new, significant, and relevant to the isotope scientific and business community. Abstracts on topical reviews and industry overviews should be submitted where appropriate. 8ICI will publish all accepted summaries in the Book of Abstracts. Accepted papers will be presented orally or as posters at the meeting, and presenters are expected to register for the meeting. Authors wishing to publish full manuscripts of their presentation (see pg. 2) should refer to the *Journal of Radioanalytical and Nuclear Chemistry* or the *Physics in Medicine and Biology* journal and for requirements regarding content.

### CONTENT

Introduce the purpose of the work, highlight the new and significant components of the work, and discuss the relevance of the results. Any references must be closely related published works.

The length is one full page, including figures or tables.

### REQUIRED TEMPLATE AND “GUIDELINES FOR ABSTRACT PREPARATION” AND SUBMISSION

[www.8ici.org](http://www.8ici.org)

### ABSTRACT AND PUBLICATION COORDINATOR

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## Session Titles by Track

### I. ISOTOPE PRODUCTION AND DEVICES

#### 1. ISOTOPE PRODUCTION IN REACTORS

- 1.a Reactor-based Production of Mo-99
- 1.b Reactor Production of Other Medical Isotopes

#### 2. ACCELERATOR PRODUCED ISOTOPEs

- 2.a Accelerator-Based Production of Mo-99
- 2.b Production of PET Radionuclides
- 2.c Production of Non-PET Radionuclides
- 2.d Medium and High Energy Production of Isotopes

#### 3. PRODUCTION OF STABLE ISOTOPEs

#### 4. OTHER (Devices, e.g. Advanced Irradiators, RTGs)

### II. APPLICATIONS IN

#### 5. RESEARCH

- 5.a Stable Isotopes in Materials and Environmental Research
- 5.b Separation Chemistry and Target Preparation for Nuclear Chemistry Experiments
- 5.c Heavy and Super Heavy Elements Research

#### 6. MEDICINE

- 6.a Applications in Nuclear Medicine – Diagnostics
- 6.b Applications in Nuclear Medicine – Therapeutics
- 6.c Production and Application of Alpha Emitters
- 6.d Radiopharmaceutical Chemistry
- 6.e Theragnostics/Personalized Medicine

#### 7. INDUSTRY AND AGRICULTURE

- 7.a Applications of Research and Industrial Isotopes
- 7.b Isotopes in Agriculture
- 7.c Isotopes in Plant Biology: Future Sustainability in Energy and Agriculture

#### 8. OTHER APPLICATIONS (e.g. Radioisotope Thermoelectric Generators, Radiation Archaeometry)

### III. ISOTOPEs IN THE ENVIRONMENT

#### 9. ISOTOPE TRACERS

- 9.a Applications

#### 10. RADIOECOLOGY AND RADIOACTIVE ELEMENTS

- 10.a Environmental Fate and Identification of Radionuclides
- 10.b Nuclear Analytical and X-ray Techniques

#### 11. NUCLEAR FORENSICS

- 11.a Application of Nuclear Techniques to National Security and Treaty Monitoring
- 11.b Airborne Effluents from Medical Isotope Production
- 11.c Calibration Methods and Fundamental Nuclear Data

### IV. ISOTOPE PRODUCTION AND OUTPUT ANALYTIC CONTROL AND QUALITY SYSTEMS

- 12.a Quality Assurance Topics in Radioanalytical Chemistry
- 12.b GMP Aspects of Medical Radionuclide Products
- 12.c Reference Materials for Nuclear Mass Spectrometry/ Nuclear Analysis
- 12.d Nuclear Data for Medical Isotopes

### V. SECURE SUPPLIES AND SAFETY

- 13.a Distribution and Transportation Issues
- 13.b Producer Forum – Challenges for Industry
- 13.c Secure the Supply of Isotopes in the Future
- 13.d Applications of He-3 and its Shortage
- 13.e Economics of Radioisotope Production and Sustainability
- 13.f Isotope Recovery and Reclamation

### FULL PAPER PUBLICATION

We expect that presenters at 8ICI wish to publish their Conference contribution in a peer-reviewed journal. Due to the expected number of contributions and the diversity of topics the Publications Committee has entered agreements with the publishers of the *Journal of Radioanalytical and Nuclear Chemistry*, the international journal serving the radio and nuclear chemistry community since 1968, published by Springer, and *Physics in Medicine and Biology*, the international journal of biomedical physics, published by IOP Publishing on behalf of the Institute of Physics and Engineering in Medicine. Full manuscripts may be submitted for peer review and published according to the journals' requirements. Accepted manuscripts will be published in a special issue of each journal within six months after 8ICI.

**SUBMISSION DEADLINE IS AUGUST 31, 2014**

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