

Twelfth International Conference
**METHODS AND APPLICATIONS OF
RADIOANALYTICAL CHEMISTRY**

FIRST CALL FOR PAPERS

Abstracts of research to be presented at the conference are solicited at this time. An up-to-date list of session organizers is available on the MARC XII website (see below). All abstracts must be submitted to the Program Chair as described on the web site (www.marconference.org) which also includes details on preparation and submission of 250-word abstracts using a excel form template available on the website.

TENTATIVE TIMELINES

Abstracts due:	December 21, 2021
Notification to authors:	January 15, 2021
Preliminary program:	February 15, 2021
Draft Papers Due:	At conference

CONTACT PERSONS

Questions concerning the scope and organization of the conference should be addressed to the General Chair:

Stephen P. LaMont
Tel: (505) 667-1008
E-mail: lamont@lanl.gov

Information on the scientific program of the conference can be obtained from the Program Chair:

Samuel E. Glover
Tel: (513) 609-2920
E-mail: sam.glover@uc.edu

To be added to the mailing list please contact the Conference Secretary:

Danielle Royball
Tel: ((505) 665-6138
E-mail: danir7@lanl.gov

April 3-8, 2022
Kailua-Kona, Hawaii, USA

ORGANIZING COMMITTEE

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IT SUPPORT

Joe Sullivan, Los Alamos National Laboratory

WEB DESIGN

Dann Glover

TECHNICAL PROGRAM COMMITTEE

A complete list of the technical program committee can be found on the conference web site.

<http://www.marconference.org/technical-committee/>



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Kailua-Kona, Hawaii, USA

ABOUT THE CONFERENCE

The conference will continue the tradition set by the eleven previous MARC conferences by focusing on emerging developments in radioanalytical chemistry, with particular emphasis on new applications. These conferences have grown to become a major international forum for the field of radioanalytical chemistry. The scope of the conference includes, but is not limited to, techniques such as instrumental and radiochemical activation analysis; radionuclide production; radiochemical separation methods; alpha, beta, gamma, x-ray and other nuclear spectrometries; *in situ* and remote sensing; radiochemical tracer methods, and mass spectrometry methods for the measurement of radionuclides. Applications of radioanalytical methods to environmental studies, environmental radioactivity including the actinide elements and radon, radioactivity in the ocean, biomedical, bioassay and clinical problems, geochemical, materials and energy sciences, nuclear fuel cycle and nuclear waste characterization, safeguards, nuclear forensics, treaty monitoring, and non-proliferation studies are some of the topics presented at previous MARC conferences.

The objective of the MARC conferences is to promote a broad exchange of information on radioanalytical chemistry among scientists from participating countries. The MARC XI conference attracted participants from more than 35 countries who benefited from the informal nature of the conference and locale. The central geographic location of Hawaii encourages participation and attendance of scientists from Pacific Rim countries as well as providing European scientists with easy accessibility via major US airports. The isolated nature of Kailua-Kona on the Island of Hawaii provides an excellent atmosphere for informal discussions and working groups among the anticipated 325-375 attending scientists and also provides excellent recreational facilities for participating guests.

The conference will include both oral and poster sessions grouped around specific topics. Poster sessions will be organized around specific themes, similar, or in addition, to those included in the oral sessions. Continuing the policy of previous MARC conferences, high-quality research presented at the conference may be submitted to the Program Chair for peer review and publication in serial volumes of *The Journal of Radioanalytical and Nuclear Chemistry*. The previous eight conferences were the venue for the presentation of the Hevesy Medal, which is awarded to individuals who have made outstanding contributions to the fields of radiochemistry or radioanalytical chemistry, and MARC XII again has been selected to have the honor to present this award.

Topics in MARC XII are being built under broad themes (tracks) and preliminary session titles are shown below. The following topics are not exclusive (see website) and the organizers welcome papers in any area of fundamental or applied radioanalytical chemistry. A partial listing of topics includes:

TENTATIVE TRACKS AND SESSIONS

Nuclear Security and Nonproliferation

Radiochronometry Techniques and Nuclear Data for Nuclear Forensics

Advances in Microscopy, Imaging, and Spatially Resolved Methods for Nuclear Forensics

Application of Nuclear Techniques to Treaty Monitoring

Actinide Mass Spectrometry for Treaty Monitoring and Nuclear Forensics

Environmental Radioactivity Track

Ultra-sensitive Mass Spectrometric and Radiometric Methods Applied to Environmental and Space Applications

Forensic Methods, Analysis and Applications of Wide Area Monitoring for Environmental Releases

Methods and Applications for Radioecology: Lessons learned from weapons testing and radiological accidents

Activation Analysis, Neutron Beam and Imaging Track

Instrumental, Preconcentration, Radiochemical and Speciation Activation Analysis

Development and Application of Nuclear Analytical Methods with Neutron Beam Technologies

Advances in Radiation Imaging and Their Applications

Analytical Methods of Fission Products and Fuels

Advances in the Nuclear Fuel Cycle and Improvements in High Activity Separations

Salt Chemistry and Radiochemistry in Support of Molten Salt Reactors

Analytical and Electrochemical Technology Development for Pyroprocessing

Nuclear Science and Education Track

Advances in Actinide Chemistry

Current Needs and Future Challenges for Nuclear and Radiological Reference Materials

Separation Chemistry and Target Preparation for Nuclear Chemistry Experiments

Isotope Production and Applications: Medical, Space, Nuclear Security, Nonproliferation, and Geochemistry Applications

International Status and Challenges of Radiochemistry Education and Training

CONFERENCE WEB SITE

The conference web site address is:

<http://www.marconference.org/>

Most information about the conference will be distributed through the web site and by e-mail. The web site will be updated periodically as new information is published.

CONFERENCE LOCATION

The conference will be held in Kailua-Kona, Hawaii at Kamehameha's Kona Beach Hotel, home to the first eight MARC Conferences. Kailua-Kona is on the beautiful Big Island of Hawaii and provides an excellent atmosphere for informal discussions and working groups among the anticipated 325-375 attending scientists.

REGISTRATION

All attendees must register for MARC XII via the website or by contacting the Conference Secretary. A registration fee will be charged to all attendees to help defray the costs of the conference. The fee will include all official conference functions. Guests who would like to attend any of the conference functions may register to attend on site. Please see the website for more information.

SOCIAL AND GUEST PROGRAM

A social program is planned to provide an opportunity for informal contacts and discussions among the participants. Activities for guests on the Big Island of Hawaii and the other Hawaiian islands are many and will be offered through local agents. See the web site for links to information on Hawaii.

SPONSOR

MARC XII is sponsored by the Northern California Section of the American Nuclear Society (www.ans.org) as a Class I topical meeting.

