

## RELATED SUBSEQUENT MEETING:

A topically related international meeting on the use of stable isotope methods will be held the week following the symposium at the same location, organized by various European stable isotope user groups.

### Joint European Stable Isotope Users Group Meeting JESIUM 2004

**VIC, Vienna, Austria**

**30th August – 3rd September 2004**

A meeting dedicated to users of stable isotopes, covering topics on health and nutrition, isotope ecology, isotope physiology, hydrology and earth science, stable isotopes in the atmosphere and biospheric exchange, methodology, and future trends.

#### On-line registration and information:

<http://chemsrv0.pph.univie.ac.at/JESIUM>

For further information on the JESIUM 2004 meeting, please check its homepage and contact the organizers directly. Please note that it is not organized by the IAEA.



## CONTACT INFORMATION

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### Conference Webpage

<http://www-pub.iaea.org/MTCD/Meetings/Meetings2004.asp>

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IAEA-CN-119

# International Symposium on

# Quality Assurance for Analytical Methods in Isotope Hydrology



Vienna International Centre

**Vienna, Austria**  
**25-27 August 2004**

Organized by the  
International Atomic Energy Agency



IAEA



## BACKGROUND

A large variety of isotopic techniques is available and commonly used in water resources investigations as well as in a wide range of other scientific fields. These techniques include the stable isotope analysis of light elements (H, C, N, O, S), activity measurements of radioactive isotopes at the environmental level ( $^3\text{H}$ ,  $^{14}\text{C}$ ,  $^3\text{H}/^3\text{He}$ ,  $^{85}\text{Kr}$ ), as well as measurements of CFCs,  $\text{SF}_6$  and other chemical and isotopic tracers. They provide valuable tools for the assessment of scientific questions and the solution of practical problems.

During the past decade, new analytical tools have significantly fostered the application of isotopic techniques in many new fields and caused a steep increase in the number of laboratories applying these methods.

International trends in improved analytical quality and requirements for laboratory certification and accreditation have pushed issues of quality control and quality assurance to a high level of importance for the operation of isotope laboratories worldwide.



## OBJECTIVES

The objectives of the symposium are to promote a wide exchange of information on key issues for high quality isotopic measurements. The main focus is on the analytical techniques and on all means to ensure high quality standards for isotopic measurements. Recent advances in analytical quality assurance and laboratory quality systems will be presented and discussed together with state of the art techniques.



## AUDIENCE

The symposium is addressed to isotope specialists, laboratory managers, laboratory technical personnel, and quality assurance officers, as well as environmental scientists with an interest in laboratory techniques. The organizers further encourage the participation of staff from recently established isotope laboratories.



## SCOPE AND CONFERENCE SESSIONS

The scope of the conference is to demonstrate the use of best laboratory practices in the following fields:

- Calibration of measurements and traceability
- Interlaboratory comparisons
- Best laboratory practices for daily analyses of samples
- Quality control and statistical evaluation of results
- Calculation of uncertainty budgets
- New analytical techniques
- Improvements in precision and accuracy of analytical methods
- Laboratory information management, databases and sample handling
- Laboratory quality systems and international guides
- Sampling techniques

It is expected that the symposium will stimulate the international exchange of information and ideas that will contribute to further improved reliability and enhanced use of isotope techniques in water resources investigations and related fields.