



Training Course on Introduction to Laser Spectroscopy for Water Isotope Analysis

Virtual Event

16 - 20 November 2026

Ref. No.: EVT2503848

Information Sheet

Introduction

This training course introduces the principles and applications of laser spectroscopy for water isotope analysis, with emphasis on measurement concepts and data treatment. Delivered as an instructor-led virtual course, it represents the initial stage of the IAEA laser spectroscopy training framework. Note: The training is intended to establish a common theoretical baseline for participants and will serve as a mandatory prerequisite for future on-site laser spectroscopy training courses at the IAEA, planned to be offered from 2027 onwards.

Objectives

The training will (i) provide an introduction to laser spectroscopy to measure water isotope ratios, (ii) discuss theoretically the setup, handling and analytical workflows, (iii) teach post-processing and treatment of the instrumental measurement data and identification of anomalous measurements, (iv) discuss the acquisition, storage and calibration of in-house reference materials, (v) demonstrate the normalization of measured data to the VSMOW-SLAP scale.

Target Audience

Participants should have a scientific/technical profile related to the analysis of stable isotopes for hydrological applications. Basic knowledge of deuterium and oxygen-18 in the water cycle will be assumed, as the training focuses on analytical aspects and not on applications. Furthermore, computational skills are required to follow the software calculations. Participants should have sufficient proficiency to follow lectures and express themselves in the English language without difficulty.

Working Language(s)

English

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (<https://intouchplus.iaea.org>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by , following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):
 - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
 - Persons without an existing NUCLEUS account can register [here](#).
2. Once signed in, prospective participants can use the InTouch+ platform to:
 - Complete or update their personal details under ‘Complete Profile’ and upload the relevant supporting documents;
 - Search for the relevant event under the ‘My Eligible Events’ tab;
 - Select the Member State or invited organization they want to represent from the drop-down menu entitled ‘Designating Authority’ (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
 - If applicable, indicate whether a paper is being submitted and complete the relevant information;
 - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
 - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
 - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by .

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to InTouchPlus.Contact-Point@iaea.org.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency’s Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also

use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate. Further information can be found in the [Data Processing Notice](#) concerning the IAEA InTouch+ platform.

In addition to the registration already submitted through the InTouch+ platform, participants have to submit the abstract, together with the Form for Submission of a Paper (Form B), to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA not later than .

Submission of a paper should be confirmed, together with the submission of the main application via the InTouch+ platform, by **1 October 2026**.

Additional Information

This event is based on former courses with a new structure; therefore, we may decline nominations from alumni of the last in-person Laser Spectroscopy courses (EVT2404641, EVT2303868, EVT2205160, EVT2204607, EVT2103854).

Organization

Scientific Secretary

Ms Rim Trabelsi Ep Gdoura

Division of Physical and Chemical Sciences

Department of Nuclear Sciences and Applications

International Atomic Energy Agency

Vienna International Centre

PO Box 100

1400 VIENNA

AUSTRIA

Tel.: +43 1 2600 21742

Fax: +43 1 26007

Email: R.Trabelsi@iaea.org

Co-Scientific Secretary

Mr Stefan Terzer-Wassmuth

Division of Physical and Chemical Sciences
Department of Nuclear Sciences and Applications
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 21622

Fax: +43 1 26007

Email: S.Terzer@iaea.org

Administrative Secretary

Ms Mariam Yaney

Division of Physical and Chemical Sciences
Department of Nuclear Sciences and Applications
International Atomic Energy Agency
Vienna International Centre
PO Box 100
1400 VIENNA
AUSTRIA

Tel.: +43 1 2600 21737

Fax: +43 1 26007

Email: M.Yaney@iaea.org

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.