

International Workshop on Small Scale Radiocarbon analysis

Tuesday 13 – Friday 16 September 2011

ETH Zürich, Switzerland

The aim of the workshop is to bring together (potential) specialists both from the 'technical' side and the 'user' side, in order to exchange knowledge and ideas with respect to the practice (how?) and use (applications) of small-scale radiocarbon analysis (<50 microgram). The workshop is organized in the week prior to the biannual International Meeting on Organic Geochemistry in Interlaken, Switzerland (<http://www.imog2011.com>).

In order to keep the workshop manageable, the amount of participants is limited and we may need to make a selection out of the applications, based on the submitted abstracts.

A number of travel grants is available of around CHF 400, also waiving the registration fee of CHF 150.

Deadlines:

Abstract submission and travel grant application: 15 May 2011.

Decision of acceptance: 1 June 2011

For abstract submission and further information, please visit our website: <http://www.ams.ethz.ch/workshop>
or email: small14c@erdw.ethz.ch

Venue

The meeting will be held at the ETH Zürich, Switzerland, and is hosted by the Geological Institute and the Laboratory of Ion Beam Physics.

Organizers

Rienk Smittenberg (ETH Zürich, Geological Institute)
Stefano Bernasconi (ETH Zürich, Geological Institute)
Irka Hajdas (ETH Zürich, Ion Beam Physics)
Lukas Wacker (ETH Zürich, Ion Beam Physics)
Tim Eglinton (ETH Zürich, Geological Institute)
Soenke Szidat (University of Bern, Chemistry & Biochemistry)

Preliminary program

Tuesday 13 September 2011

15:30 - 17:00 Arrival / registration

17:00 - 20:00 Welcome reception including buffet

20:00 - 21:00 Welcome notes and introductory lecture (T. Eglinton or H-A. Synal):
Introduction and theoretical background of radiocarbon analysis in general and
compound-specific / small samples in particular.

Wednesday 14 September

8:30 - 9:15 Lecture (P. Steier, University of Vienna, Austria): *AMS systems, ion sources, sample input - technical limitations and future possibilities.*

9:15 - 10:00 Lecture (K. Spalding, Karoliska Inst. Stockholm, Sweden): *The use of bomb-peak radiocarbon in cell biology.*

10:00 - 10:30 Coffee break

10:30 - 12:00 Short (15 or 20 min) presentations from participants

12:00 - 13:30 Lunch

13:30 - 15:00 Short (15 or 20 min) presentations from participants

15:00 - 15:30 Coffee break

15:30 - 17:00 'Brainstorming' focused on needs, wishes and possibilities of systems, including sample introduction and ionization, to bring together 'users' and 'developers'.

17:00 - 17:30 Summarization of brainstorm session, discussion

18:00 - 20:00 Dinner

Thursday 15 September

8:30 - 9:15 Lecture (G. dos Santos, UC Irvine, USA): *Instrument (AMS) and sample (gas, graphite, combustion) blanks*

9:15 - 10:00 Lecture (N. Ohkouchi, JAMSTEC, Japan): *Preparation, purification (e.g. by preparative gas chromatography and liquid chromatography), sample handling and laboratory practices.*

10:00 - 10:30 Coffee Break

10:30 - 11:15 Lecture (M. Blaauw, Queens Univ. Belfast, UK). *Radiocarbon age calibration - conversion from (average) radiocarbon contents/ages to calendar ages.*

11:15 - 12:00 Short (15 or 20 min) presentations from participants

12:00 - 13:30 Lunch

13:00 - 17:00 Posters session combined with a visit to the radiocarbon facility at ETH.

18:00 - 22:00 Workshop Dinner

Friday 16 September

8:30 - 10:00 Discussion session: 'Best practices in sample preparation / purification'

10:00 - 10:30 Coffee break

10:30 - 12:00 Discussion session: 'Best practices for sample handling, introduction into the AMS, measurement strategies (e.g. sample bracketing by standards and blanks)

12:00 - 13:00 Lunch

13:00 - 14:30 Discussion session: wish list regarding ^{14}C standards and ring trial of small-scale / compound-specific radiocarbon analysis.

14:30 - 15:00 Coffee break

15:00 - 16:00 Conclusion: Set up outline for workshop proceedings 'best practice guide for small-scale ^{14}C analysis', selection of an international steering committee on small-scale radiocarbon analysis.

16:00 End of the workshop.