

NKS on Social Networks

NKS Facebook and LinkedIn sites have been created, which can be used for relevant sharing of information.

These can be found at:

Facebook: <https://www.facebook.com/pages/Nordic-Nuclear-Safety-Research/132413406937625>

LinkedIn: <http://www.linkedin.com/groups/NKS-Nordic-Nuclear-Safety-Research-4904492/about>

Upcoming Seminars

NKS-B NOVE

Seminar on neutron detection in the Nordic countries at present and in the future

13-16 May, Geislavarnir Ríkisins, Reykjavík, Iceland

Participants will give an overview on their operational neutron detection capabilities. Preliminary results of tests performed with novel technologies are also presented. An upcoming laboratory intercomparison of detection methods is planned during the seminar. The two-day seminar is preceded by two days of measurements in Iceland. Measurements in the Icelandic low background radiation environment will be performed and the so called ship effect will be studied. The latter will be performed in co-operation with the Icelandic Coast Guard.

The participating organizations are:

Finnish Radiation and Nuclear Safety Authority, STUK

Icelandic Radiation Safety Authority, GR

University of Lund, Sweden

Norwegian Radiation Protection Authority, NRPA

Icelandic Coast Guard (participation on one measurement day)

Contact persons:

Sigurður Emil Pálsson (sep@gr.is) and Kari Peräjärvi (kari.perajarvi@stuk.fi).

Information on the Icelandic Radiation Safety Authority GR can be found here:

www.gr.is.

Representatives from Nordic authorities wishing to participate should register no later than April 29 by sending an e-mail to sep@gr.is.

NKS-B EmSem/NordEx-12

A seminar following up the experience of the Swedish REFOX exercise (2012) and other recent Nordic exercises - Lessons learned and the way forward

27-29 August 2013, Hotel Park Inn, Solna Centrum, Stockholm, Sweden

A recap of the REFOX exercise will be given and description of selected scenarios. Participants will be invited to describe their approach (what were they aiming to get out of the exercise), methods, equipment, results and conclusions. Part of the seminar will concentrate on the way forward, opportunities for Nordic cooperation and possible NKS activities. Results of the related work within NKS-B NordEx-12 will also be presented. More detailed description and information on registration will be given in May.

Contact person for the NKS-B EmSem/NordEx-12 activities is Sigurður Emil Pálsson, sep@gr.is

NKS-B RADIOANALYSIS Workshop on Radioanalytical Chemistry

2-6 September, 2013, Roskilde, Denmark

Note: Application/Registration deadline: 1st of August

This is the 2nd Nordic Workshop on Radioanalytical Chemistry following the 1st workshop held Nov. 2009 in Roskilde, Denmark. The workshop is organised by the Technical University of Denmark, in collaboration with University of Helsinki; Norwegian University of Life Sciences, Royal Institute of Technology, and Swedish Radiation Safety Authority; supported by Nordic Nuclear Safety Research (NKS).

The objectives of this workshop are:

- 1) To provide the participants with an overview of radiochemical analytical methods for determination of various radionuclides (mainly beta and alpha emitting) relevant to environmental radioactivity and waste management
- 2) To provide an opportunity to the participants getting knowledge and practical (hands-on) experience of state-of-the-art measurement techniques used for the determination of different radionuclides by participating in practical training in the laboratory (experimental demonstration and analysis of real samples)
- 3) To provide a forum for knowledge exchange of analysis of various radionuclides and discussion of present radiochemical procedures for individual radionuclides.

The workshop aims to strengthen the education of MSc/PhD students and young scientists in radiochemical analysis for environmental radioactivity, radiation monitoring, waste management, decommissioning of nuclear facilities, and other relevant areas, and to increase competence of staff involved in radiochemical separation and determination of radionuclides.

The workshop includes two parts:

- 1) Invited lectures and presentations of the participants (2 days);
- 2) Laboratory training/practice (3 days).

About 15 invited lectures will be given by experienced senior researchers in the field of radiochemistry and radioecology. The participants can participate in all lectures/presentations, and 2 of 3 laboratory practices.

The three laboratory practices are:

- (1) Radiochemical separation of Pu and ICP-MS measurement of Pu isotopes;
- (2) Radiochemical separation of ²¹⁰Po and ²²⁶Ra and their alpha spectrometry measurement.
- (3) Radiochemical separation of ⁵⁵Fe, ⁶³Ni, ⁹⁰Sr and their LSC measurement.

Each lab practice will take for 1.5 days.

The topics of the lectures include:

General aspects in Radiochemical analysis for radionuclides;

Separation techniques for determination of radionuclides

Techniques for speciation analysis of radionuclides

Methods for radiochemical analysis of various radionuclides including isotopes of Pu, and Ra, ^{237}Np , ^{210}Po , ^{210}Pb , ^{99}Tc , ^{90}Sr , ^3H , ^{14}C , ^{36}Cl , ^{41}Ca , ^{55}Fe , ^{63}Ni , and ^{129}I .

Sampling and pre-concentration techniques for environmental radioactivity analysis

Radiometric analytical techniques including gamma- and alpha-spectrometry, beta counting with ultra-low level background G-M counter, and liquid scintillation counting.

Mass spectrometry and other techniques for long-lived radionuclides including ICP-MS and AMS.

Automated and rapid analytical technique for radionuclides.

There is no registration fee for participants from the Nordic countries. A limited numbers of participants from other countries are accepted with a registration fee of 700 Euros. No financial support for travel and accommodation is available from the workshop organizers. Young Nordic participants are recommended to apply for travel support directly from NKS. Please visit the NKS web site for further details.

Applications for participation in the workshop should be sent to Xiaolin Hou (xiho@dtu.dk) by the 1st August, 2013. Participants are invited to submit an abstract/full paper and present their work in the workshop orally or by poster. Workshop proceedings will be published as a NKS report.

Organisers

Xiaolin Hou (xiho@dtu.dk)

Sven P. Nielsen (spni@dtu.dk)

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Mats Jonsson (mats@kth.se)

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NKS-B GammaTest 2013

A series of linked workshops on gamma spectrometry

17-19 September, 2013, FOI, Umeå, Sweden

The GammaTest enables the users to address the problems in gamma ray spectrometry they find most demanding, through lectures and practical exercises in addition to sharing their experience with others in a similar position. This year intercomparisons will be included as well. These intercomparisons (three) will comprise

- Real sample(s)
- Spectra for calibration (including background spectrum, spectrum from a radionuclide standard solution, and a sample spectrum to be analysed)
- Spectrum/spectra for peak identification only

The sessions during the workshop will include:

- Invited lecturer
- Practical exercise(s) on 'complicated' spectra
- Lessons learned from the intercomparison exercise(s)

- User experience with implementation of corrections
(Participants are strongly encouraged to report back their experiences in the implementation of e.g. correction methods for true coincidence summing and self-absorption correction)

It will be possible to attend all the sessions or just some of them.

Updated information and links to technical background material will be available on the GammaWiki web site:

<https://www.gr.is/wiki/GammaWiki/>

Contact persons are Maiken Karlsson [maiken.karlsson@foi.se] and Henrik Ramebäck [henrik.ramebeck@foi.se].

Information about the city of Umeå can be found here:

<http://www.umea.se/mer/otherlanguages.4.1821d6e811c67c7e795800011908.html>

<http://en.wikipedia.org/wiki/Ume%C3%A5>

New Publications

The following NKS-R reports are available free of charge: Download by clicking the appropriate link.

NKS-277	March 2013	Stefan Authén, Jan-Erik Holmberg: Guidelines for reliability analysis of digital systems in PSA context — Phase 3 Status Report	DIGREL	View document
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The following NKS-B reports are available free of charge: Download by clicking the appropriate link.

NKS-273	January 2013	T. Turtiainen et al.: Doses from natural radioactivity in wild mushrooms and berries to the Nordic population. Interim Report from the NKS-B BERMUDA activity	BERMUDA	View document
NKS-274	February 2013	E. Strålberg et al.: GammaWorkshops 2012 Proceedings	GammaWorkshops	View document
NKS-275	February 2013	J. Nilssen et al.: Mobile Measurement Systems, Final Report from NKS-B MOMS (Contract: AFT/B(12)4)	MOMS	View document
NKS-276	February 2013	M. Iosjpe et al.: Consequences of severe radioactive releases to Nordic Marine environment	COSEMA	View document

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The NKS Secretariat can be contacted on nks@nks.org.
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