

Preface

The International Conference on Advances in Liquid Scintillation Spectrometry LSC 2008 took place in Davos, Switzerland, from May 25 to 30, 2008. This was the most recent conference on LSC following the 2005 conference in Katowice, Poland, organized by Stanisław Chałupnik and his colleagues. In total, about 100 oral and poster contributions were presented from scientists from all over the world.

The conference began with a meeting of the scientific committee on Sunday, May 25, followed by a snack reception for all participants during the evening. Introducing lectures were given by John Noakes and Nora Vajda followed by technical sessions that ran throughout Monday to Friday, with an excursion to the beautiful environment of the Swiss *Engadin* region on Wednesday, May 26. The conference took place in the Sunstar Hotel Davos, located above the city, i.e. with a nice scenic view on high mountains, fields, forests, and the Davos lake.

The scientific program included highly variable contributions over the entire field of liquid scintillation spectrometry. In particular, the following sessions were addressed: (a) instrumentation, methods & scintillators; (b) radionuclide metrology using LSC; (c) calibration and standardization; (d) data evaluation and spectrum analysis; (e) applications based on alpha/beta spectrometry; (f) applications in environmental monitoring; (g) applications in bioscience & medicine; (h) radionuclides in nuclear materials; (i) LSC in decommissioning & remediation activities; (j) quality assurance; (k) natural product verification; and finally, (l) applications in geology & geochronology.

Most of the oral and poster presentations focused on the application in environmental monitoring, mainly with respect to the determination of naturally occurring radioactive material (NORM) isotopes, but also with respect to the typical pure beta-emitting isotopes from the nuclear fuel cycle, i.e. ^3H , ^{14}C , and ^{90}Sr . In addition, other sessions such as instrumentation, methods & scintillators, or radionuclide metrology included several contributions. In this latter research area, new procedures were presented for the standardization of the activity of several isotopes, but also on the development of new detector systems with increased number of photomultipliers. With the use of 3 photomultipliers, it is meanwhile possible to apply the triple-to-double coincidence method for accurate efficiency tracing. There were also several talks on topics like new scintillators, simultaneous alpha/beta measurements, $^{222}\text{Rn}/^{210}\text{Pb}$ determination, beta spectrum deconvolution, and on further interesting scientific investigations that cannot all be listed here.

In summary, we can note that the scientific contributions given at LSC 2008 were highly interesting and, moreover, were presented comprehensively and with lots of enthusiasm. We are furthermore excited that several scientists finally prepared excellent papers for this conference proceedings book. In total, 55 papers were submitted, totaling up to about 440 pages. We would like to thank all authors for their effort during the preparation of their articles, because in order to demonstrate the quality of a conference, detailed proceedings are extremely important. In this context, we also acknowledge the members of the scientific committee for their reviewing work and for serving as chairpersons.

The success of a well-performed international conference is strongly dependent on the teamwork of the organizing committee. The LSC 2008 organizing committee was very motivated, invested several extra hours, and performed their activities in a way such that everything went smoothly and that the conference could be conducted in a very friendly atmosphere, leading to constructive discussion and scientific exchange between the participants. We therefore gratefully acknowledge Heide Beer,

Henry Baehrle, and Maya Jäggi from PSI for their strong contribution to prepare and to guide a highly successful conference.

We furthermore would like to thank the vendors PerkinElmer, Hidex, Triskem Europe, and Meridian Biotechnology for their financial support and for their active presence and product exhibition during the entire week. They provided new information and technology that is always welcome among the LSC scientific society.

Thanks go in addition to the editorial team of Radiocarbon, Mark McClure and Prof. Timothy Jull, for issuing the LSC 2008 proceedings.

Finally, it has to be noted that Philippe Cassette, CEA France, agreed to volunteer the next LSC conference in Paris in 2010. We would very much appreciate to meet the LSC 2008 participants again and furthermore to welcome other scientists and accompanying persons from all over the world.

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