Laudation for Professor Heino NITSCHÉ presented at the Hevesy Medal Award Ceremony 2014

A. Chatt

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Heino Nitsche was born in Munich in Germany in 1949. He received both his BSc and PhD degrees from the Free University of Berlin, Germany. Dr. Nitsche started his career in 1980 at the Lawrence Berkeley Laboratory/University of California where he became engaged in the forefront of actinide thermodynamics and actinide environmental chemistry. In 1993 he was offered the positions of Director, Institute of Radiochemistry, Research Centre Rossendorf and Professor of Radiochemistry at the Technical University of Dresden, Germany.

Since 1998, Prof. Nitsche has been a tenured faculty member in the Chemistry Department at the University of California, Berkeley. At present he is a Professor of Chemistry, a Senior Scientist at Lawrence Berkeley Laboratory, and the Leader of the Heavy Element Nuclear and Radiochemistry Group in the Nuclear Science Division. During this time, he has established a large, internationally recognized research group in the area of heavy element chemistry. Prof. Nitsche and his group at Berkeley are members of an international team that studied the first chemistry of the heaviest elements, Bohrium (107) and Hassium (108), and independently verified the discovery of element 114 in 2009. In 2012, the element was named Flerovium. His team discovered in 2010 ^{265}Fl , reaching in an unbroken alpha decay chain with all new isotopes from element 114 down to 104, Rutherfordium. His group was recently involved in international collaborations that confirmed the existence of elements 115 and 117. These are major steps toward better understanding how to explore the

region of enhanced stability thought to lie in the vicinity of element 114—and possibly beyond.

In addition, Prof. Nitsche and his group study fundamental molecular-level interactions of actinides at metal-oxide and biological interfaces, the thermodynamics and kinetics of actinides in solution and their relation to nuclear-waste disposal, environmental contamination, and separation science. In these studies, he is advancing the frontiers of actinide radioecology by bringing new tools and techniques to the field. Prof. Nitsche's group was one of the first to use synchrotron-based spectroscopic tools in actinide environmental radiochemistry. He has published about 200 peer-reviewed papers in internationally reputed scientific journals.

Prof. Nitsche is the founding Director of the Glenn T. Seaborg Center at LBNL and served in this position until 2002. He was also director-at-large for international programs of the Glenn T. Seaborg Institute for Transactinium Science at Lawrence Livermore National Laboratory (LLNL) from 1993 to 2001. With all these activities you would think that he is busy enough. Not a chance! He teaches a First-year General Chemistry course to over 700 students every year in the spring semester at Berkeley. Many students become chemistry majors as a result of his efforts. As we all know it takes a lot of effort to teach 700 students. He thrives on inspiring young undergraduate students to pursue careers in chemistry and other areas of science and engineering. He supervised many PhD students, Postdoctoral Fellows, visiting professors and scientists.

It is indeed a pleasure to honor Prof. Heino Nitsche of the University of California, Berkeley with the Hevesy Medal Award 2014 in recognition of his international contributions to heavy element chemistry and actinide environmental chemistry.

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Fig. 1 From *left to right* Prof. Jan John, Prof. Amares Chatt, Prof. Heino Nitsche, and Dr. Zsolt Révay

In memoriam The above laudation was read on 2014 May 11 when the Hevesy Medal Award 2014 was presented to Prof. Heino Nitsche at the 17th Radiochemical Conference (RadChem-2014) held in Mariánské Lázně, Czech Republic (Fig. 1). Only a couple of months passed

when we were very saddened to learn that he suddenly passed away on 2014 July 15. Prof. Nitsche was a gifted radiochemist and a fabulous teacher. We will miss him dearly.