

## Obituary

Christoph E. Düllmann\* and Norbert Trautmann

## In Memoriam: Jens Volker Kratz (1944–2024)

<https://doi.org/10.1515/ract-2024-2002>

Published online March 15, 2024



Jens Volker Kratz

(Foto: Bernhard Kuczewski)

On 11 February 2024 Prof. Dr. Jens Volker Kratz passed away at the age of 79. He was a distinguished experimental nuclear chemist and best known for his work in the field of the heaviest elements.

Jens Volker Kratz was born on 26 May 1944 in Jena, Germany. He studied chemistry at the Johannes Gutenberg University Mainz (JGU). In 1971 he obtained his PhD for his work on nuclear spectroscopy and fission yields of short-lived germanium, arsenic and selenium isotopes under the supervision of Günter Herrmann at the Institute of Nuclear Chemistry of JGU. From 1972 to 1974, he worked as a postdoc

at the Lawrence Berkeley Laboratory at the University of California at Berkeley, CA, USA with Glenn T. Seaborg and studied nuclear reactions between heavy atomic nuclei using chemical methods. He then returned to Germany to join the new research center GSI in Darmstadt, where he led the newly formed nuclear chemistry group at the UNILAC accelerator. The experimental program focused on Coulomb fission, sub-Coulomb transfer, neutron/proton equilibration in damped heavy-ion reactions, studies of the possibility to synthesize very heavy nuclei in nucleon transfer reactions, the search for superheavy elements, studies of fusion below the barrier and proof of the dynamical fusion hindrance in collisions of heavy partners. In 1982 he joined the faculty of the JGU as full professor in nuclear chemistry. His research focused on the mechanisms of heavy-ion reactions, the synthesis and chemical properties of transactinide elements, the study of exotic nuclei, the migration and speciation of actinides in the environment, laser resonance ionization spectroscopy of actinides, and break-up reactions with radioactive beams. He helped shape the scientific program of the Helmholtz Institute Mainz (HIM) in its conception phase in 2008 and contributed to the development of the super-heavy element program. He was a member of various committees and professional organizations, served as the chair of the division of nuclear chemistry of the GDCh (German Chemical Society), was a member of the scientific council of FZ Rossendorf, Germany, and a co-editor for *Radiochimica Acta* from 1997 until mid-2020. His scientific work was recognized by the award of the Otto-Hahn Prize of the City of Frankfurt in 1998.

After retirement in 2009, he remained very active and enjoyed the freedom he had in this new phase of his rich career. This allowed him to address several projects from years, if not decades before, which had remained unpublished. Everybody who worked with Jens Kratz in the laboratory remembers the impeccable notes in his lab journal, handwritten in a font as if printed and detailed at a level hardly encountered elsewhere. This served him well throughout his rich career; it allowed, for example, the publication in 2013 of a full account [J.V. Kratz et al., *Phys. Rev. C* 88 (2013) 054615] of early studies on heavy-ion reactions, on which letters were published at the time [e.g., Schädel et al., *Phys. Rev. Lett.* 41 (1978) 469], more than 30 years before; this at the same time highlights how

\*Corresponding author: **Christoph E. Düllmann**, Johannes Gutenberg University Mainz, Mainz, Germany; GSI Helmholtzzentrum für Schwerionenforschung GmbH, Darmstadt, Germany; and Helmholtz Institute Mainz, Mainz, Germany, E-mail: [duellmann@uni-mainz.de](mailto:duellmann@uni-mainz.de)  
**Norbert Trautmann**, Johannes Gutenberg University Mainz, Mainz, Germany, E-mail: [norbert.trautmann@uni-mainz.de](mailto:norbert.trautmann@uni-mainz.de)

visionary the work of the new nuclear chemistry group at GSI formed and led by Jens Kratz in the first years after the establishment of the new GSI research center has been. He continued to work as an IUPAC Fellow, as scientific consultant of the Advanced Science Research Center,

Japan Atomic Energy Agency, Tokai, and published a textbook.

In Jens Volker Kratz, we have lost an exceptional scientist. We will miss his dedication to science, his collegiality, and his warm-heartedness. Jens, you will be missed.