

KARL F. VON REDEN

Associate Director, National Ocean Sciences AMS Facility
Senior Research Specialist, Department of Geology and Geophysics
Woods Hole Oceanographic Institution, Woods Hole, MA 02543-1539
Tel: 508 289-3384 * Fax: 508-457-2183 * e-mail: kvonreden@whoi.edu

Objective: Leading position in interdisciplinary research and development involving applications of experimental nuclear physics methods in the environmental and life sciences.

Education:

M.S. (Diploma) Nuclear Physics, University of Hamburg, FRG, 1979
Thesis Title: ^3He - induced Radiation Damage in Silicon Detectors.
Ph.D. (Dr. rer. nat.) Nuclear Physics, University of Hamburg, FRG, 1983
Thesis Title: Elastic and Inelastic Proton Scattering from the Even Palladium Isotopes.
Advisor: Gunnar Andersson-Lindström

Professional Activities:

1999-Present Senior Research Specialist, Department of Geology and Geophysics, W.H.O.I.
National Ocean Sciences Accelerator Mass Spectrometry (NOSAMS) Facility, Co-principal
Facility Investigator, Associate Director (since 2012).
1989-1999 Research Specialist, Department of Geology and Geophysics, W. H. O. I.
AMS – engineering – computer network operations supervisor, Co-principal Investigator.
1987-1989 Research Technical Staff, Massachusetts Institute of Technology, Cambridge, MA.
Intermediate energy accelerator physics experiments with up to 1 GeV electron beams and virtual
photons; polarized gas targets.
1983-1987 Research Associate, Nuclear Physics Laboratory, University of Pittsburgh, PA.
Experiments at the Pittsburgh dual tandem accelerators and the Indiana University Cyclotron
Facility; meson physics experiments at Los Alamos National Laboratory; electron and virtual
photon experiments at MIT's Bates Linear Accelerator Laboratory.
1976-1983 Research/Teaching Assistant, Physics Department, University of Hamburg, FRG.

Main Projects: Founding member and Co-Principal Investigator in the Development and Operation of
the National Ocean Sciences Accelerator Mass Spectrometry Facility at W.H.O.I. under a
Cooperative Agreement with the U.S. National Science Foundation (NSF).
Co-Principal Investigator on "Development of a Compact System for Continuous-flow
Accelerator Mass Spectrometry", NSF Major Research Initiative award.

Member: American Geophysical Union
International Advisory Board of the International Conferences on Accelerator Mass
Spectrometry: Vienna (1999) - Nagoya (2002) – Rome (2008).
Chair: Technical Staff Evaluation Council, W.H.O.I.

Awards: WHOI C.H. & I.M. Green Technology Awards for "Development of a durable carbon
nanotube foil for electron stripping in accelerator mass spectrometry (AMS)", 2003, and
"Muon Radiography", 2010.

U.S. Patent: 7,586,098: Ion stripper device made of carbon nanotubes or fullerenes, K. von Reden and
E. Sichel.

Over 60 publications in peer-reviewed journals.