

Introduction of Jiancheng (James) Zheng

Jiancheng (James) Zheng is a research scientist (cold regions chemistry) with Geological Survey Canada (GSC), Natural Resources Canada (NRCan) based in Ottawa. He completed his undergraduate program in chemistry in Wuhan University, China, his master program in geosciences with Ottawa University, Canada and his PhD program in Environmental Geochemistry in Heidelberg University, Germany. He is an adjunct professor with the Department of Earth and Environmental Sciences, University of Ottawa.

In his early research career, James worked on marine fouling organism corrosion for a Chinese oceanography institute located in Xiamen, China. James came to Canada to carry out his 2-year scholarship awarded by the Department of Education, China in 1983, working on marine CO₂, at the Institute of Ocean Sciences (IOS), Department of Fisheries and Oceans (DFO) in Victoria, BC, under supervision of Dr. C. S. Wong, director of Ocean Chemistry Division. James was later invited to join the ice core research project by Dr. Shier Berman, director of Measurement Sciences at National Research Canada (NRC), Canada. James has been worked with GSC, NRCan since 1999.

James is interested in climate changes and anthropogenic contaminants via studying snow/ice cores and environmental waters. His major research areas include archive reconstruction of inorganic trace metals and paleoclimate variations as well as monitoring of current climate trends with ice and snow in the Canadian High Arctic. James developed his GSC version of ultra clean protocol for snow/ice sampling, processing and sample storage/protection for studies of trace elements with ultra low concentrations. James is also interested in development of methodologies and quality control protocols for practical operation in laboratory and in the field. He has recently set up a laboratory for tangential flow filtration systems for studying mobility and fate of trace elements in environment waters. James' interest also extends to other contaminants, both inorganic and organic, contaminant source apportionment, the linkage of archives between ice cores and other records as well as ice core drilling in Canadian High Arctic ice caps.