

Dachun Zhang
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Education:

Master of Science in stable isotope geochemistry from Peking University, 1982. Title of thesis: Hydrogen, Oxygen and carbon isotopes of some granites in south China.

Ph.D. in geochemistry from the University of Chicago, August 1988. Title of thesis: Nitrogen concentrations and isotopic compositions of some terrestrial rocks.

Experience:

Associate specialist, ESS Dept. UCI. Duties include:

Sample prep for C-14 analysis in AMS.

Maintain and routine operation of PCGC, separating organics in GC and collect individual compound for C-14 analysis.

Routine operation of TC/EA and EA for isotope analysis of water and organic samples.

Stable isotope lab manager with Zymax Envirotechnology from 1999 to 2005. Duties include:

Supervise day to day operation of the laboratory

Order equipment, chemical reagents and repair parts

Calibrate working standards for isotope analysis

Operate and maintain continuous flow mass spectrometer, IsoPrime-EA and IsoPrime-GC, and dual inlet mass spectrometer, Nuclide

Develop analytical methods to measure carbon isotopes of chlorinated solvents in water samples using purge and trap and CF-IRMS

Design and operate glass vacuum lines, glass blowing

Build graphite conversion line for C-14 sample preparation

Modify GC-vacuum line to prepare samples for C-14 dating of methane and carbon dioxide

Build vacuum line for CI-37 analysis

Build vacuum lines for carbon, hydrogen, oxygen, nitrogen and sulfur isotope analysis

Stable isotope analyst/lab supervisor in Global Geochemistry Corporation from November 1988 to 1999. I handled thousands of stable isotope samples from universities, government agencies and geological research institutions.

Research under the guidance of Dr. Robert N. Clayton as a Ph.D. candidate at the University of Chicago from October 1982 to August 1988. Research in nitrogen content and isotopic composition of mantle rocks and the application of nitrogen as a tracer in water-rock interaction and granite genesis.

Research associate for Dr. Robert N. Clayton at the University of Chicago from August to October 1988.

Publications:

Dachun Zhang, F. Huang and S. Zheng (1982), The oxygen, hydrogen and carbon isotope study of tungsten bearing granites. In the International Symposium of Granite and its Mineralization, Nanjing, China, 1982.

Dachun Zhang, Z. Mu, F. Huang, C. Cheng and S. Zheng (1984), Stable isotope study of Yangchuling tungsten-molybdenum ore deposits, Jiangxi Province, China. Mineral Deposits, China Geology Press, Vol.3, No.2, p.49-58.

Dachun Zhang, R. N. Clayton and T. K. Mayeda (1987), Nitrogen contents and isotopic compositions of some Icelandic basalts. EOS trans. Am. Geophys. Union, 68, 456.

Dachun Zhang, and R. N. Clayton (1988), Nitrogen abundances and isotopic compositions in MORB and subduction zone rocks. EOS Trans. Am. Geophys. Union, 69, 510.

Dachun Zhang, Issac Kaplan and Robert clayton (1995), Nitrogen isotopes as a Tracer in water-rock interaction. EOS Trans. Am. Geophys. Union, Vol. 76, NO. 46, F652.

Dachun Zhang, Issac Kaplan and Robert Clayton (1996), Nitrogen isotopes in Archean and Proterozoic shales. EOS Trans. Am. Geophys. Union. Vol77, NO. 46, F760.

Issac Kaplan, Dachun Zhang and J. Gat (1995), The source of water used by stream bed vegetation from Owens Valley in the Sierra Nevada. EOS Trans. Am. Geophys. Union, Vol.76, NO.46, F214.

Zhendi Wang et al and Dachun Zhang (1999), Source identification of an unknown spilled oil from Quebec (1998) by unique biomarker and diagnostic ratios of "source-specific marker" compounds", *Environmental Technology*, **20**, 851-862.

Zhendi Wang et al and Dachun Zhang (1998), Identification and Linkage of Tarballs from the Coasts of Vancouver Island and Northern California Using GC/MS and Isotopic Techniques", *J. High Resolut. Chromatogr.*, **21** (7), 383-395.