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Education: Case Western Reserve University
Department of Geological Sciences, Ph.D. August 1991

Peking University, Beijing, China
Department of Geology, M.S. July 1985

Peking University, Beijing, China
Department of Geology, B.S. February 1982

Honors: Frederick Hall Professor of Mineralogy and Geology 2003-
Fellow – Geological Society of America, 2006-
CAREER award – NSF, 1996-2001
Susan and Gib Myers 1964 Faculty Fellow, Dartmouth, 2000
Faculty Fellow – Dartmouth College, 1999
Foley Fellow – Dartmouth College, 1999

Experience: Chair, Department of Earth Science, July, 2004 – present
Dartmouth College

Professor July 2006-present, Department of Earth Sciences, Dartmouth College
Associate Professor July 2000-June 2006, Department of Earth Sciences, Dartmouth College
Assistant Professor July 1994-June 2000, Department of Earth Sciences, Dartmouth College
Research Fellow in Geochemistry August 1991-June 1994, California Institute of
Technology, Pasadena CA
Consultant 1988-1989, Geosciences Associates, Inc., Burton, Ohio
Research Assistant July 1988 - July 1991, Weatherhead School of Management, CWRU
Factory Worker July 1976 – February 1978, Yan Shan Petrochemical Industry Corporation,
Beijing, China
High School Physics Teacher February 1976 - July 1976, 172nd High School, Beijing, China.

Professional Membership

American Geophysical Union
Geological Society of America
Geochemical Society of America
The Clay Minerals Society
American Geographical Society
IPACES (International Professionals for Advancement of Chinese Earth Sciences)

Synergistic activities and Professional Services

Panelist: NSF/GEO POWRE, 1999
Panelist: NSF/EAR/IF, 2000-2003
Panelist: NSF/BE/CBC, 2004
Director: Dartmouth Trace Element Analysis Core Facility, July 2001-2003

Member of the Board of Directors of CUAHSI (Consortium of Universities for Advancement of Hydrological Science, Inc.) 2003-2004
 Dartmouth Representative of CUAHSI 2003-present
 Reviewer for many professional journals, and US and international funding agencies.
 Associate Editor: *Advances in Earth Science*, Vol. 4, The International Professionals for Advancement of Chinese Earth Science.
 Associate Editor: *Journal of Hydrology*, 2005-

Refereed Publications (*student or postdoc authors):

053. Liu, W., **Feng, X.**, and Wang, Z. (in review) Climatic impact on nitrogen dynamics and soil nitrogen isotope systematics along a monsoon gradient in the Loess Plateau, China. Submitted to *Biochemistry*.
052. Pellerin*, B.A. Wollheim, W.M., **Feng, X.**, Vörösmarty, C.J. (accepted) The role of surface runoff in urban stormflow generation: Inferences from chemical and isotopic hydrograph separation, *Hydrological Processes*.
051. **Feng, X.** (in review) Residence Time of Water and Solutes in Drainage Basins, in *Environmental Geoscience*, eds. Zheng, C. and **Feng, X.**, Higher Education Press, Beijing, China.
050. **Feng, X.**, Reddington*, A.L., Faiia*, A.M., Posmentier, E.S., Shu* Y., and Xu, X. (in press) Changes in North American atmospheric circulation patterns indicated by wood cellulose, *Geology*.
049. Lennon*, J.T. Faiia, A.M. **Feng, X.**, Cottingham, K.L. (2006) Evidence for CO₂ recycling in lakes along a terrestrial carbon gradient, *Limnology and Oceanography*, 51(4), 1602-1613.
048. DeLemos*, J.L., Bostick, B.C., Renshaw, C.E., Stürup, S., and Feng X. (2006) Landfill-Stimulated Iron Reduction and Arsenic Release at the Coakley Superfund Site (NH), *Environmental Science and Technology*. 40(1), 67-73.
047. Renshaw, C.E., Bostick, B.C., **Feng, X.**, Wong*, C.K., Winston, E.S., Karimi, R. Folt, C.L. and Chen, C.Y. (2006), Impact of land disturbance on the fate of arsenical pesticides, *Journal of Environmental Quality*, 35, 61-67
046. Graham, S.A., Chamberlain, C.P., Yue Y., Ritts, B.D. Hanson, A.D., Horton, T.W., Waldbauer, J.R., Poage, M.A. and **Feng, X.** (2005) Stable isotope records of Cenozoic climate and topography, Tibetan Plateau and Tarim Basin, *American Journal of Science*, 305, 101-118.
045. Liu, W., **Feng, X.**, Ning, Y., Zhang, Q., Cao, Y., and An, Z. (2005) $\delta^{13}\text{C}$ variation of C₃ and C₄ plants across an Asian monsoon rainfall gradient in arid northwestern China, *Global Change Biology*, 11, 1094-1100.
044. Shu*, Y., **Feng, X.**, Gazis, C., Anderson, D. Faiia*, A.M., Tang*, K., Ettl, G.J. (2005) Relative humidity recorded in tree rings: a study along a precipitation gradient in the Olympic Mountains, *Geochimica et Cosmochimica Acta*, 69, 791-799.
043. Posmentier, E.S. **Feng, X.**, Zhao, M. (2004) Seasonal variations of precipitation $\delta^{18}\text{O}$ in Eastern Asia, *Journal of Geophysical Research*, 109, D23106, doi:10.1029/2004JD004510.
042. Liu, W., **Feng, X.**, Liu, Y., Zhang, Q., An, Z. (2004) $\delta^{18}\text{O}$ values of tree rings as a proxy of monsoon precipitation in arid Northwest China. *Chemical Geology*, 206, Issues 1-2, 73-80.
041. Poage*, M.A. and **Feng, X.** (2004) A theoretical model of steady state $\delta^{13}\text{C}$ vs. depth profiles of decomposing soil organic matter. *Global Biogeochemical Cycles*. 18, GB2016, doi:10.1029/2003GB002195.
040. **Feng, X.** (2004) Isotopic evolution of seasonal snowpacks and its significance to surface water hydrochemistry, in *Environment, Natural Hazards, and Global Tectonics of the Earth*, ed. Chen, Y.J., Higher Education Press, Beijing, China, 1-19.
039. Kirchner, J.W., **Feng, X.**, Neal, C. and Robson, A.J. (2004), INVITED COMMENTARY, The fine structure of water-quality dynamics: the (high-frequency) wave of the future, *Hydrological Processes*, 18(7), 1353-1359.
038. **Feng, X.**, Kirchner, J.W., and Neal, C. (2004b) Spectral analysis of chemical time series from long-term catchment monitoring studies: hydrochemical insights and data requirements, *Water, Air and Soil Pollution: Focus* 4, 221-235.

037. **Feng, X.**, Kirchner, J.W., and Neal, C. (2004a) Measuring catchment-scale chemical retardation using spectral analysis of reactive and passive chemical tracer time series, *Journal of Hydrology*, 292, 296-307
036. Gazis*, C. and **Feng, X.** (2004) A stable isotope study of soil water: Evidence for mixing and preferential flow paths, *Geoderma*, 119, no. 1, pp. 97-111.
035. Quinn*, M.R., **Feng, X.**, Folt, C.L. and Chamberlain, C.P. (2003) Analyzing trophic transfer of heavy metals in stream food webs using nitrogen isotopes. *Science of the Total Environment*, 317, Issues 1-3, 73-89.
034. Quideau, S.A., Graham, R.C., **Feng, X.** and Chadwick, O. (2003) Natural isotopic distribution in soil surface horizons differentiated by vegetation. *Soil Science Society of America Journal*, 67: 1544-1550.
033. Renshaw, C.E. **Feng, X.** Sinclair*, K.J. and Dums*, R.H.R. (2003) The use of stream flow routing for direct channel precipitation with isotopically-based hydrograph separations: the role of new water in stormflow generation. *Journal of Hydrology*, 273, 205-216.
032. **Feng, X.** (2002) A theoretical analysis of carbon isotope evolution of decomposing plant litters and soil organic matter. *Global Biogeochemical Cycles*, 16(4), Art. No.1119, doi:10.1029/2002GB001867.
031. Chen*, Z.L., Wang X.F., **Feng, X.**, Wang, C.Q., and Liu, J. (2002) New evidence from stable isotopes for the uplift of mountains in northern edge of the Qinghai-Tibetan Plateau, *Science In China Series B-Chemistry*, 45: 1-10 Suppl. S.
030. Taylor*, S., **Feng, X.**, Williams, M. and McNamara, J. (2002b) How isotopic fractionation of snowmelt affects hydrograph separation, *Hydrological Processes*, 16, 3683-3690.
029. Taylor*, S., X. Feng, C.E. Renshaw, and J.W. Kirchner (2002a) Isotopic evolution of snowmelt: II. Verification and parameterization of a 1-D model using laboratory experiments, *Water Resources Research*, 38(10), 1218, doi:10.1029/2001WR000815.
028. **Feng, X.**, S. Taylor*, C.E. Renshaw, and J.W. Kirchner (2002) Isotopic evolution of snowmelt: I. A physically based 1-D model, *Water Resources Research*, 38(10), 1217, doi:10.1029/2001WR000814.
027. Kirchner, J.W., **Feng, X.** and Neal, C. (2001) Catchment-scale advection and dispersion as a mechanism for fractal scaling in stream tracer concentrations. *Journal of Hydrology*, 254, 81-100.
026. **Feng, X.**, Kirchner, J.W., Renshaw, C.E., Osterhuber, R., Klaue, B. Taylor, S. (2001) A study of solute transport mechanisms using REE tracers and artificial rain storms on snow. *Water Resources Research*, 37, 1425-1435.
025. Taylor*, S., **Feng, X.**, Kirchner, J.W., Osterhuber, R., Klaue, B. and Renshaw, C.E. (2001) Isotopic evolution of a seasonal snowpack and its melt. *Water Resources Research*, 37, 759-769.
024. Tang*, K. and **Feng, X.** (2001) The effect of soil hydrology on the oxygen and hydrogen isotopic compositions of plants' source water. *Earth and Planetary Science Letters*, 185, 355-367.
023. Connin*, S.L. **Feng, X.** and Virginia, R.A. (2001) Isotopic discrimination during long-term decomposition in an aridland ecosystem. *Soil Biology and Biochemistry*, 33, 41-51.
022. Faiia*, A and **Feng, X.** (2000) Kinetics and mechanism of oxygen isotope exchange between analcime and water vapor and assessment of isotopic preservation of analcime in geological formations. *Geochimica et Cosmochimica Acta*, 64(18), 3181-3188.
021. Tang*, K., **Feng, X.** and Ettl, G. (2000) The Variations in δD of Tree Rings and the Implications for Climatic Reconstruction. *Geochimica et Cosmochimica Acta*, 64(10), 1663-1673.
020. **Feng, X.**, Melander*, A.P. and Klaue, B. (2000) Contribution of municipal waste incineration to trace metal deposition on the vicinity. *Water, Air and Soil Pollution*, 119, 295-316.
019. Chamberlain, C.P., Bensch S., **Feng, X.**, Åkesson, A. and Andersson, S.A.T. (2000) Stable isotopes examined across a migratory divide in Scandinavian willow warblers (*Phylloscopus trochilus trochilus* and *Phylloscopus trochilus acredula*) reflect their African winter quarters. *Proc. R. Lond. B* 267, 43-48.
018. Kirchner, J.W., **Feng X.** and Neal, C. (2000) Fractal stream chemistry and its implication for contaminant transport in catchments. *Nature*, 403, 524-527.
017. **Feng, X.**, Faiia*, A., WoldeGabriel G., Aronson, J.L., Poage*, M. and Chamberlain, C.P. (1999c) Oxygen isotope studies of clays and clinoptilolite from Yucca Mountain: Implications for paleohydrological conditions. *Earth and Planetary Science Letters*, 171, 95-106.

016. **Feng, X.** (1999) Trends in intrinsic water-use efficiency of natural trees for the past 100-200 years: A response to atmospheric CO₂ concentration. *Geochimica et Cosmochimica Acta*, 63(13-14), 1891-1903.
015. **Feng, X.**, Peterson*, J. C., Quideau, S.A., Virginia, R.A., Graham, R.C. Sonder, L.J., and Chadwick, O.A. (1999b) Distribution, accumulation and fluxes of soil carbon in four monoculture lysimeters at San Dimas Experimental Forest, California. *Geochimica et Cosmochimica Acta*, 63(9), 1319-1333.
014. **Feng, X.**, Cui, H., Tang*, K. and Conkey, L.E. (1999a) Tree-ring δD as an indicator of Asian monsoon intensity. *Quaternary Research*, 51, 262-266.
013. Tang*, K., **Feng, X.** and Funkhouser, G. (1999) The δ¹³C of tree rings in full-bark and strip-bark bristlecone pine trees in the White Mountains of California, *Global Change Biology* 5, 33-40.
012. Taylor*, S., **X. Feng**, B. Klaue, M. Albert and J. Kirchner (1998) Rare Earth Elements as Chemical Tracers in Snow Studies. Proceedings of the 55th Eastern Snow Conference, Jackson, New Hampshire, 1998, pp13-20.
011. **Feng, X.** (1998) Long-term c_i/c_a response of trees in western North America to atmospheric CO₂ concentration derived from carbon isotope chronologies. *Oecologia*, 117, 19-25.
010. C.P. Chamberlain, J.D. Blum, R.T. Holmes, **X. Feng**, T.W. Sherry, and G. R. Graves (1997) The Use of Isotope Tracers for Identifying Populations of Migratory Birds. *Oecologia*, 109, 132-141.
009. **Feng, X.** and Epstein, S. (1996) Climatic trends from isotopic records of tree rings: The past 100-200 years. *Climatic Change*, 33, 551-562.
008. **Feng, X.** and Epstein, S. (1995b) Climatic temperature records in δD data from tree rings. *Geochimica et Cosmochimica Acta*, 59, 3029-3037.
007. **Feng, X.** and Epstein, S. (1995a) Carbon isotopes of trees from arid environments and implications for reconstructing atmosphere CO₂ concentration. *Geochimica et Cosmochimica Acta*, 59, 2599-2608.
006. Pizzarello, S., **Feng, X.**, Epstein, S. and Cronin, J.R. (1994) Isotopic analyses of nitrogenous compounds from the Murchison Meteorites: Ammonia, amines, amino acids, and polar hydrocarbons. *Geochimica et Cosmochimica Acta*, 58, 5579-5587.
005. **Feng, X.** and Epstein S. (1994) Climatic implications of an 8000-year hydrogen isotope time series from bristlecone pine trees. *Science*, 265, 1079-1081.
004. **Feng, X.**, Krishnamurthy, R.V. and Epstein, S. (1993) Determination of D/H Ratios of Nonexchangeable Hydrogen in Cellulose: A Method based on the Cellulose Water Exchange Reaction. *Geochimica et Cosmochimica Acta* 57, 4249-4256.
003. **Feng, X.** and Savin, S.M. (1993b) Oxygen isotope studies of zeolites: stilbite, analcime, heulandite and clinoptilolite III. Oxygen isotope fractionation between stilbite and water vapor. *Geochimica et Cosmochimica Acta* 57, 4239-4248.
002. **Feng, X.** and Savin, S.M. (1993a) Oxygen isotope studies of zeolites: stilbite, analcime, heulandite and clinoptilolite II. Kinetics and mechanisms of isotopic exchange between zeolites and water Vapor. *Geochimica et Cosmochimica Acta* 57, 4219-4238.
001. **Feng, X.** and Savin, S.M. (1991) Oxygen Isotope Studies of Zeolites: Stilbite, Analcime, Heulandite and Clinoptilolite - I. Analytical technique. in *Stable Isotope Geochemistry: A Tribute to Samuel Epstein*, ed. H.P. Taylor, Jr., J.R. O'Neil and I.R. Kaplan, The Geol. Soc. Special Publication No.3, 1991.