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EDUCATION

Ph.D., Geology (1997) University of Michigan, Ann Arbor. Thesis title: **Development of $^{40}\text{Ar}/^{39}\text{Ar}$ technique for clay minerals: Correlation between mineralogical characterization and radiogenic isotope dating.**

M.S., Geology (1991). China University of Geosciences, Beijing. Thesis title: **The mineralogical study of beryls from Keketuohai, Xinjiang.**

B.S., Geology (1988). China University of Geosciences, Wuhan. Honors thesis title: **The study of geology and mineralogy of Mn-Pb-Zn deposit at Mt. Manao in Hunan Province.**

WORK EXPERIENCE

July 2009 – Present. Miami University, Professor of Geomicrobiology, Mineralogy and Geochemistry.

July, 2006 – 2009. Miami University, Associate Professor of Geomicrobiology, Mineralogy and Geochemistry.

August, 2000 – July, 2006. Miami University, Assistant Professor of Geomicrobiology, Geochemistry, and Mineralogy. Established the Geomicrobiology program, and the related laboratories.

March, 1997 – August, 2000. Princeton University, Postdoc Research Associate. Principal researcher in a number of DOE and NSF funded projects, the most important ones being bioremediation of contaminated water resources and mineral-microbe interactions.

September, 1992 -- March, 1997. University of Michigan, Research Assistant. I developed the ^{40}Ar - ^{39}Ar vacuum encapsulation technique for dating fine-grained clay minerals.

July, 1991—August, 1992. Liaoning Bureau of Geology and Mineral resources, Research Associate. Experience in 1:50,000 field mapping. Consultant of a project "Au occurrence in pyrite".

1988-1991. China University of Geosciences, Beijing, Graduate Assistant. Experience in gem mineral identification and evaluation, permanent gemstone quality improvement via heat treatments.

1984-1988. China University of Geosciences, Wuhan, Honors. Research experience in minerals from Mn-Pb-Zn ore deposits in Hunan province. Considerable field experience in geological field mapping (summers, 1985, 1986, 1987, 1988), structural and strata analysis.

OTHER SIGNIFICANT APPOINTMENTS

Adjunct graduate faculty, Environmental Sciences, Wright State University, OH, 2008-2013
Adjunct Professor, China University of Geosciences, Beijing, China, 2006-present
Director of Geomicrobiology Laboratory, China University of Geosciences, Beijing, 06-present
Adjunct Professor of China University of Geosciences, Wuhan, China, 2008-2011
Adjunct Professor of the Graduate School, Chinese Academy of Sciences, Beijing, 2005-2008
Adjunct Professor, Institute of Geology, Chinese Academy of Geological Sciences, Beijing, 2006-2009

TECHNICAL EXPERTISE

Flow cytometry, microtoming, critical point drying, fluorescence in-situ hybridization (FISH), polymerase chain reaction for amplifying DNA and sequencing, gel electrophoresis, UV spectrophotometry, phosphor imaging (imaging bacteria in sediment), bacterial transport at column and field scales, microelectrophoresis, streaming potential measurements, surface tension measurements by contact angle method, X-ray diffraction, scanning electron microscopy, transmission electron microscopy, electron microprobe, atomic force microscopy, thermal ionization mass spectrometry, noble gas mass spectrometry, inductively coupled plasma mass spectrometry, atomic absorption, neutron activation analysis, Mossbauer spectroscopy, inferred spectroscopy, and optical spectroscopy.

COURSES TAUGHT

Environmental Geology, undergraduate level, 3 credits, ~90 students (8 times)

Geomicrobiology, graduate level, 3 credits, 5-15 students (6 times)

Isotopes in Environmental Processes, 3 credits, graduate level (4 times)

Chemistry of Earth Systems, 3 credits, undergraduate level (4 times)

Microbes and Geology, 3 credits, graduate level (first time)

Geology Seminar, 1-3 credits (5 times)

MAJOR AWARDS

1. Marion L. and Chrystie M. Jackson Mid-Career Clay Scientist Award, 2008
2. Miami University Distinguished Scholar, Senior faculty, 2007
3. 37th Annual Alan Berman Research Publication and the Edison Patent Award, Naval Research Laboratory, Department of Navy, Washington, DC, 2005.
4. University of Michigan, Rackham Graduate School Predoctoral Fellowship, \$25,000.00, 1995-1996.

SERVICE TO THE DISCIPLINE:

Conference conveners and journal editors:

Convener and organizer of an NSF-funded international workshop on *Geomicrobiological Processes in Extreme Environments*, Beijing, China, Oct. 10-17, 2008.

Invited symposium speaker for Qingdao Summer School on International Advances in Deep-Sea Marine Geo-Bioscience Research, China, July 14-20, 2008. It was attended by 200 students and professionals from around the world.

Associate Editor, *Clays & Clay Minerals*, March 2008-present.

Workshop organizer of the 45th Annual Meeting of the Clay Minerals Society, April 5-10, 2008, New Orleans, LA.

Guest co-editor for a special issue of *Geomicrobiology Journal: Geomicrobiological Processes in Extreme Environments*, 2007.

Symposium convener of the 2006 West Pacific AGU meeting in Beijing, China, session title: *Geomicrobiological Processes in Extreme Environments*

Associate editor for a special issue of *Clays & Clay Minerals*, 2006.

Symposium convener of the 2005 Fall AGU meeting in San Francisco, session title: *Recent Developments in Biogeosciences in Asian Countries*.

Symposium convener of the 41st annual meeting of the Clay Minerals Society in Richland, WA, June 19-24, 2004, session title: *Microbial Effects on Clay Mineral Transformation and Reactivity*

Proposal review panels served:

2008 NSF Geobiology and Low Temperature Geochemistry, spring

2007 NSF Geobiology and Low Temperature Geochemistry, spring and fall.

2006 NSF Geobiology and Low Temperature Geochemistry, spring and fall.

2005 DOE Environmental Management Science Progra, (EMSP) review panel, July 24-25, 2005.

2004 NASA Exobiology and Evolutionary Biology Program and Planetary Protection Program proposal review panels.

Manuscript reviewers:

American Mineralogist, Applied and Environmental Microbiology, Canadian Mineralogist, Chemical Geology, Clays & Clay Minerals, Earth and Planetary Science Letters, Environmental Science and Technology, Geochimica et Cosmochimica Acta, Proceedings of 11th International Symposium on Water-Rock Interaction, and Science. Microbial Ecology, Environmental Microbiology, Polar Research, Ground Water, Journal of Contaminant Hydrology, Geobiology, Geomicrobiology Journal, and Extremophiles

Proposal reviews:

National Science Foundation (~120 proposals so far), NASA, NIH, ACS-PRF, Austrian National Science Foundation (1 proposal), the U.S. Army Corps of Engineer Research and development Center (ERDC) (1 proposal).

Textbook reviews:

Environmental Geology by Montgomery (8th edition).

External Tenure and Promotion Reviews

University of California – San Diego (2008)

University of Nevada – Los Vegas (2008)

Barnard College – Columbia University (2009)

Recent Professional Societies:

American Association for the Advancement of Science, Mineralogical Society of America, Geological Society of America, The Clay Minerals Society, American Geophysical Union, American Society for Microbiology.

STUDENTS AND VISITING SCHOLARS SUPERVISED

Undergraduates:

Crystal M. Monkman (summer of 2001), Cynthia Cohen (summer of 2002), Lauren Land (2004), Michael Bishop (2006-2008), Megan Miller-Lloyd (2008), Andrew Nowakowski (2008).

Graduate students:

Jennifer Seebaugh (left the program in 2005), Gengxin Zhang (PhD, finished in 2006, now a researcher at Oak Ridge National Laboratory), Beth Miller (MS, 50% responsibility, completed in 2007), Deb Jaisi (PhD, finished in 2007, now a post-doc researcher at Yale University), Hongchen Jiang (completed in 2007, a post-doc researcher at the University of Oklahoma 2007-2008, and now a faculty member at China University of Geosciences - Beijing), Shanshan Ji (MS, in progress), Yan Liu (PhD, ended in 2008), Jing Zhang (PhD in progress), Junjie Yang (PhD in progress), and Mike Bishop (MS in progress).

Visiting scholars:

Xiaoyan Yu (China University of Geosciences – Beijing)
Bingsong Yu (China University of Geosciences – Beijing)
Ying Ye (Zhejiang University, Hangzhou, China)
Zhiyang Dong (Institute of Microbiology, Chinese Academy of Sciences, Beijing)
Bingsong Yu (China University of Geosciences – Beijing)
Guo Lu (China University of Geosciences – Beijing)
Deng Liu (China University of Geosciences – Wuhan)
Mary Ann Bruns (Penn State University)

RESEARCH GRANTS:

- 2008 Continental Scientific Drilling Project of Cretaceous Songliao Basin: Continuous High-resolution Terrestrial Archives and Greenhouse Climate Change. I am a co-PI with Chengshan Wang (PI, China University of Geosciences in Beijing), Steve Graham (Stanford University), Christian Koeberl (Austria), and Zhiqiang Feng (Daqing Oilfield, China). It is approved by International Continental Drilling Program with a total budget of ~\$1M.
- 2008 Coupled diffusion and reaction processes in rock matrices: impact on dilute groundwater plumes. Department of Defense (SERDP), Miami budget: \$284,803, 10/1/2008 to 9/30/2011. This is a collaborative project with Shaw Environmental (Charles Schaefer in New Jersey office).
- 2008 Workshop: US-China Collaborative Research on Geomicrobiological Processes in Extreme Environments, sole PI, NSF, \$81,122, 8/15/2008 to 8/14/2010.
- 2007 MRI: Acquisition of a High-Resolution Analytical Transmission Electron Microscope for the Miami University's Electron Microscope Facility, PI, NSF, \$593,687, 8/1/2007 to 7/30/2008, plus \$250,000 from the State of Ohio and Miami University (matching funds).
- 2007 NSF-REU: Nanoscale investigation of microbial effects on the smectite to illite transformation. NSF, AER-0345307, \$5800, 8/1/2007 to 7/31/2008.

- 2006 Technetium and iron biogeochemistry in suboxic subsurface environments with emphasis on the Hanford site. U.S. Department of Energy Office of Biological and Environmental Research – Environmental Remediation Science Program. PI, DE-FG02-07ER64369, \$300,000, 3/15/07 to 3/14/10.
- 2005 Identification of Molecular and Cellular Responses of *Desulfovibrio vulgaris* Biofilms under Culture Conditions Relevant to Field Conditions for Bioreduction of Heavy Metals. (Co-PI with Fields in Microbiology), Miami total, \$372,167. U.S. Department of Energy, 10/1/05 to 9/30/08.
- 2004 Acquisition of High Throughput DNA Sequencing and Genotyping Instrumentation for Research and Training. (Co-PI with Actis, Fields, Li, Woods), \$477,783. NSF. 8/1/04-7/31/07. Match funds from Ohio Board of Regents and Miami University, \$204,764.
- 2004 Nanoscale investigation of microbial effects on the smectite to illite transformation. National Science Foundation (EAR-0345307, Sole PI), NSF, \$247,830, 8/1/04-7/31/08.
- 2003 Acquisition of scanning electron microscope for nanotechnology investigations, National Science Foundation (PI with Pacey, Rakovan and Edelman), \$207,590 plus \$51,898 match fund from Ohio Board of Regents, 2003-2005.
- 2001 Chinese continental scientific drilling project: a unique opportunity for studying the deep subsurface microbiology. National Science Foundation (Sole principal investigator), \$19,634, 1/15/02 – 11/30/02.
- 2001 Acquisition of a thermal ionization mass spectrometer for geochemical and geochronological applications, National Science Foundation, Co-principal investigator (with Drs. Widom and Hart), \$309,962. 8/1/01-7/31/03. Matching funds from Ohio Board of Regents.
- 2001 Microbial reduction of iron in sedimentary clays: implications for subsurface microbial ecology and bioremediation, Petroleum Research Fund (Sole principal investigator), \$60,000, 9/1/01 – 8/31/03.
- 2000 Acquisition of a CCD-detector single crystal diffractometer, National Science Foundation, Co-principal investigator with John Hughes and John Rakovan, EAR-0003201, \$140,288. 3/1/2001 – 2/28/2003, with matching funds of \$70,144.
- 1997 “Princeton University-Exxon Production and Research Labs, University-Industry Collaboration Proposal to the GOALI Program: Geochronology of Ultra-fine-grained Clay”, N.S.F. (Co-principal investigator with T.C Onstott), \$136,611, 1998-2001.

Published scientific photographs in various journals and books:

Kowalski, K. (1998) Searching for SLiMEs (and other extremophiles), p. 7, ODYSSEY-Life in the extreme.

Merriman, R.J. and Peacor D.R. (1999) Very low grade metapelites: mineralogy, microfabrics and measuring reaction progress. In. Low grade metamorphism (eds. M. Frey and D. Robinson), Blackwell Science. pp. 10-60.

Ghiorse, W.C. (1999) Life on Earth, Geotimes, July 1999, p. 43.

Vogel, G. (1999) Expanding the habitable zone. Science, 286, 71.

Ho, N-C., Peacor, D.R., van der Pluijm, B. (1999). Clays & Clay Minerals, 47, page 500.

Feldman, R.T. (1999) Bacteria Rule. P. 49, Millennium issue of Odyssey.

PUBLICATIONS

ARTICLES

* student authors under my supervision.

Kim, J.W., **Dong, H.**, and Daulton, T. (in preparation) Characterization of microbially reduced magnetite by electron energy loss spectroscopy (EELS) and energy filtered transmission electron microscopy (EFTEM). Clays & Clay Minerals.

Dong, H., Jaisi, D.P., Kim, J.W., and Zhang, G.X. (in submission) Microbe-clay mineral interactions and implications for environmental remediation. American Mineralogist.

Zhang, G., **Dong, H.**, Burgos, W.D., and Wang, Z. (in submission) Interactions between nanoparticles and microbes. Environmental Science and Technology

Yang, S.J., **Dong, H.**, and Lei, F.M. (2009) Phylogeography of regional fauna on the Tibetan Plateau: a Review. Progress in Natural Science.

Wu, J.Y., Guan, T.W., Jiang, H.*, Zhi, X.Y., Tang, S.K., **Dong, H.**, Zhang, L.L., and Li, W.J. (in press) Diversity of actinobacterial community in saline sediments from Yunnan and Xinjiang, China. Extremophiles.

- Jiang, H.*, **Dong, H.**, Deng, S., Yu, B., Huang, Q., and Wu, Q. (in press) Response of Archaeal Community Structure to Salinity Change in Lakes on the Tibetan Plateau, Northwestern China. *Geomicrobiology Journal*.
- Jaisi, D.P.*, **Dong, H.**, Plymale, A.E., Fredrickson, J.K., Zachara, J.M., Heald, S., and Morton, J.P. (In press) Reduction and long-term immobilization of technetium by Fe(II) associated with clay mineral nontronite. *Chemical Geology*.
- Liu, X.Q., **Dong, H.**, Yang, X.D., Herzsuh, U., Shen, J., Wang, S.M., Zhang, E.L., and Wang, Y.B. (in press) Late Holocene forcing of the Asian winter and summer monsoon as evidenced by proxy records from the northern Qinghai-Tibetan Plateau. *Earth and Planetary Science Letters*.
- Zhang, Z., Shen, K., and **Dong, H.** (in press) Petrological and geochronological constraints on the formation, subduction and exhumation of the continental crust in the southern Sulu orogen, eastern-central China. *Tectonophysics*.
- Song, Z.Q.^, Jiang, H.^*, Zhi, X.Y., Zhang, C.L., **Dong, H.**, and Li, W.J. (in press) Actinobacterial diversity in hot springs in tengchong (China), Kamchatka (Russia)m and Nevada (USA), to be submitted to *Geomicrobiology Journal*.
- Pi, Y., Ye, Q., Jiang, H.*, Wang, P., Li, S., Noakes, J., Culp, R., **Dong, H.**, and Zhang, C.L. (in press) Lipids and phylogenetic characterization of archaea affected by gas hydrates in the Gulf of Mexico. *Geomicrobiology Journal*.
- Zhang, G.*, **Dong, H.**, Jiang, H.*, Kukkadapu, R.K., Kim, J.W., Eberl, D., and Xu, Z. (in press) Mineral transformations associated with iron redox cycling in the deep subsurface. *American Mineralogist*.
- Mailloux, B.J., Alexandrova, E., Keimowitz, A., Wovkulich, K., Freyer, G., Herron, M., Stolz, J., Kenna, T., Pichler, T., Polizzotto, M., **Dong, H.**, Bishop, M., and Knappett, P. (2009) Microbial mineral weathering for nutrient acquisition releases arsenic. *Applied and Environmental Microbiology*, 75, 2558-2565.
- Yu, B.S., **Dong, H.**, Jiang, H.*, Lv, G.*, Eberl, D., Li, S., and Kim, J.W. (in press) The role of clay minerals in preservation of organic matter in sediments of Qinghai Lake, NW China. *Clays & Clay Minerals*.

- Jiang, H.*, **Dong, H.**, Yu, B., Lv G., Deng, S., Berzins, N., and Dai, M. (2009) Diversity and abundance of ammonia-oxidizing archaea and bacteria in Qinghai Lake, Northwestern China. *Geomicrobiology Journal*, 26, 199-211.
- Navarro, J.B., Flores, A., Ross, C., Rosen, M.R., **Dong, H.**, Briegel, A., Zhang, G.*, Jensen, G.J., Moser, D.P., and Hedlund, B.P. (2009) Microbial community succession in an ephemeral hypereutrophic Mojave Desert playa lake. *Microbial Ecology*, 57, 307-320.
- Jiang, H.*, **Dong, H.**, Yu, B.S., Lv, G.*, Deng, S.*, Wu, Y., Dai, M., and Jiao, N. (2009) Abundance and diversity of aerobic anoxygenic phototrophic bacteria in saline lakes on the Tibetan Plateau. *FEMS Microbiology Ecology*, 67(2), 268-278.
- Yu, B.S., **Dong, H.**, Widom, E., Chen, J., and Lin C. (2009) Geochemistry of basal Cambrian black shales and cherts from the Northern Tarim Basin, Northwest China: implications for depositional setting and tectonic history. *Journal of Asian Earth Sciences*, 34, 418-436.
- Jaisi, D.P.*, Liu, C.X., **Dong, H.**, Blake, R.E., and Fein, J.B. (2008) Fe(II) sorption onto nontronite (NAu-2), *Geochimica et Cosmochimica Acta*, 72, 5361-5371.
- Wang, J., Wu, Y., Jiang, H.*, Li, C., **Dong, H.**, Wu, Q., Soininen, J., and Shen, J. (2008) High beta diversity of bacteria in shallow terrestrial subsurface. *Environmental Microbiology*, 10(10), 2537-2549.
- Jaisi, D.P.*, Ji, S.*, **Dong, H.**, Blake, R.E., Eberl, D.D., and Kim J.W. (2008) Role of Microbial Fe(III) Reduction and Solution Chemistry in Aggregation and Settling of Suspended Particles in the Mississippi River Delta Plain, Louisiana, USA. *Clays & Clay Minerals*, 56(4), 416-428.
- Jiang, H.*, **Dong, H.**, Yu, B., Ye, Q., Shen, J., Rowe, H., and Zhang, C.L. (2008) Dominance of putative marine benthic archaea in Qinghai lake, Northwestern China, *Environmental Microbiology*, 10, 2355-2367.
- Weng, H.X., Sun, X.W., Weng, J.K., Qin, Y.C., and **Dong, H.** (2008) Crucial roles of iron in the growth of *Prorocentrum micans* Ehrenberg (dinophyceae). *Journal of Coastal Research*, 24, 176-183.
- Jaisi, D.P.*, **Dong, H.** and Morton, J.P. (2008) Speciation of Fe(II) during Fe(III) reduction in nontronite and their reactivity towards Tc(VII) reduction, *Clays & Clay Minerals*, 56, 175-189.

- Liu, X., **Dong, H.**, Rech, J.A., Matsumoto, R., Yang, B., and Wang, Y. (2008) Evolution of Chaka Salt Lake in NW China in response to climatic change during the latest Pleistocene-Holocene. *Quaternary Science Reviews*, 27, 867-879.
- Dong, H.** (2008) Microbial life in extreme environments: linking geological and microbiological processes. In *Links between Geological Processes, microbial activities, and evolution of life.* (eds.) Y. Dilek, H. Furnes, and K. Muehlenbachs, ISBN 978-4020-8305-1, pp. 237-280.
- Dong, H.** and Yu, B. (2007) Geomicrobiological Processes in Extreme Environments: A Review. *Episodes*, 30(3), 202-216.
- Jiang, H.*, **Dong, H.**, Yu, B., Liu, X., Li, Y., Ji, S.*, and Zhang, C.L. (2007) Microbial response to salinity change in Lake Chaka, a hypersaline lake on Tibetan Plateau. *Environmental Microbiology*, 9(10), 2603-2621.
- Dong, H.** (2007) Geomicrobiological processes in various extreme environments: theoretical and practical implications, *Journal of China University of Geosciences*, 18, 361-362.
- Dong, H.**, Rech, J.A., Jiang, H.*, Sun, H., and Buck, B.J. (2007) Endolithic cyanobacteria in soil gypsum: occurrences in Atacama (Chile), Mojave (USA), and Al-Jafr Basin (Jordan) Deserts. *Journal of Geophysical Research-Biogeosciences*, 112, doi:10.1029/2006JG000385.
- Zhang, G*, **Dong, H.**, Kim, J.W., and Eberl, D.D. (2007a) Microbial reduction of structural Fe³⁺ in nontronite by a thermophilic bacterium and its role in promoting the smectite to illite reaction. *American Mineralogist*, 92, 1411-1419.
- Zhang, G*, Kim, J.W., **Dong, H.**, and Sommer, A.J. (2007b) Microbial effects in promoting the smectite to illite reaction: role of organic matter intercalated in the interlayer. *American Mineralogist*, 92, 1401-1410.
- Jiang, H.*, **Dong, H.**, Ji, S.*, Ye, Y., Wu, N., and Morton, J.P. (2007) Microbial diversity in the deep marine sediments from the Qiongdongnan Basin in South China Sea. *Geomicrobiology Journal*, 24, 505-517.
- Liu, F., Xu, Z., Liou, J.G., **Dong, H.**, and Xue, H. (2007) Ultrahigh-pressure mineral assemblages in zircons from surface to 5158-m depth cores in the main drill hold of Chinese Continental Scientific Drilling Project, SW Sulu, China. *International Geology Review*, 49(5), 454-478.
- Mailloux, B.J., Devlin, S., Fuller, M.E., Onstott, T.C., DeFlaun, M.F., Choi, K.H., Green-Blum, M., Swift, D.J.P., McCarthy, J., and Dong, H. (2007) The limited role of aquifer

- heterogeneity on metal reduction in an Atlantic coastal plain determined by push-pull tests. *Applied Geochemistry*, 22, 974-995.
- Scheibe, T.D., **Dong, H.**, and Xie, Yulong (2007) Correlation between bacterial attachment rate coefficients and hydraulic conductivity and its effects on field-scale bacterial transport. Invited submission to a special issue in *Advances in Water Resources*, 30, 1571-1582.
- Weng, H., Qin, Y.C., Sun, X.W., **Dong, H.** and Chen Q.H. (2007) Iron and phosphorus effects on the growth of *Cryptomonas* sp. (Cryptophyceae) and their availability in sediments from the Pearl River Estuary, China. *Estuarine, Coastal and Shelf Science*, 73, 501-509
- Jaisi, D.P.*, **Dong, H.**, and Liu, C. (2007) Kinetic analysis of microbial reduction of Fe(III) in nontronite. *Environmental Science and Technology*, 41, 2437-2444.
- Jaisi, D.P.*, **Dong, H.** and Liu, C. (2007) Influence of biogenic Fe(II) on the extent of microbial reduction of Fe(III) in clay mineral nontronite, illite and chlorite. *Geochimica et Cosmochimica Acta*, 71, 1145-1158.
- Jaisi, D.P.*, **Dong, H.**, Kim, J.W., He, Z., and Morton, J.P. (2007) Particle aggregation kinetics during microbial reduction of Fe(III) in nontronite. *Clays & Clay Minerals*, 55(1), 96-107.
- Cai, C.F., **Dong, H.**, Li, H., Xiao, X., and Ou, G. (2007) Mineralogical and geochemical evidence for coupled bacterial uranium mineralization and hydrocarbon oxidation in the Shashagetai deposit, NW China. *Chemical Geology*, 236, 167-179.
- DeFlaun, M. F., Fredrickson, J. K., **Dong, H.**, Pfiffner, S. M., Onstott, T. C., Balkwill, D. L., Streger, S. H., Stackebrandt, E., Knoessen, S. and van Heerden, E. (2007) Isolation and characterization of a *Geobacillus thermoleovorans* species from an ultra-deep South African gold mine, *Systematic and Applied Microbiology*, 30, 152-164.
- Kukkadapu, R.K., Zachara, J.M., Fredrickson, J.K., McKinley, J.P., Kennedy, D.W., Smith, S.C., and **Dong, H.** (2006). Reductive biotransformation of Fe in shale-limestone saprolite containing Fe(III) oxides and Fe(II)/Fe(III) phyllosilicates. *Geochimica et Cosmochimica Acta*, 70, 3662-3676.
- Jiang, H.*, **Dong, H.**, Zhang, G.*, Yu, B., Chapman, L.R., and Fields, M.W. (2006) Microbial diversity in water and sediment of Lake Chaka: an inland hypersaline lake in Northwestern China. *Applied and Environmental Microbiology*, 72(6), 3832-3845.
- Zhang, G.*, **Dong, H.**, Jiang, H.*, Xu, Z. and Eberl D. (2006) Unique microbial community in drilling fluid from Chinese Continental Scientific Deep Drilling. *Geomicrobiology Journal*, 23, 499-514.

- Dong, H.**, Scheibe, T.D., Johnson, W.P., Monkman, C.M.* and Fuller, M.E. (2006) Change in collision efficiency with distance in bacterial transport experiments. *Ground Water*, 44(3), 415-429.
- Dong, H.**, Zhang, G., Jiang, H., Yu, B., Chapman, L.R., Lucas, C.R., and Fields, M.W. (2006) Microbial diversity in sediments of saline Qinghai Lake, China: linking geochemical controls to Microbial Ecology. *Microbial Ecology*, 51(1), 65-82.
- Seabaugh, J.L.*, **Dong, H.**, Kukkadapu, R.K., Eberl, D., Morton, J.P., and Kim, J.W. (2006) Microbial reduction of Fe(III) in the Fithian and Muloorina illites: contrasting extents and rates of bioreduction. *Clays & Clay Minerals*, 54(1), 67-79.
- Jaisi, D.P.*, Kukkadapu, R.K., Eberl, D.D., and **Dong, H.** (2005) Control of Fe(III) site occupancy on the extent and rate of microbial Fe(III) reduction in nontronite. *Geochimica et Cosmochimica Acta*, 69(23), 5429-5440.
- Kim, J.W., Furukawa, Y., **Dong, H.**, Newell, S.W. (2005) The role of microbial Fe(III) reduction in the clay flocculation. *Clays & Clay Minerals*, 53(6), 572-579.
- Dong, H.** (2005) Interstratified illite-smectite: a review of contributions of TEM data to crystal chemical relations and reaction mechanisms. *Clay Science*, 12, supplement 1, 6-12.
- Zhang, G.*, **Dong, H.**, Xu, Z., Zhao, D., and Zhang, C. (2005) Bacterial diversity in ultra-high pressure rocks and fluids from the Chinese Continental Scientific Drilling in China. *Applied and Environmental Microbiology*, 71(6), 3213-3227.
- Hall, J.A., Mailloux, B.J., Long, K., Onstott, T.C., Fuller, M.E., **Dong, H.**, DeFlaun, M.F. (2005) The effect of physical and chemical heterogeneity on the transport of bioaugmented organisms as inferred from *in-situ* short-core pulse experiments through sandy porous media, *Journal of Contaminant Hydrology*, 76, 295-314.
- Ams, D.A., Fein, J.B., **Dong, H.**, and Maurice, P.A. (2004) Experimental measurements of the adsorption of *Bacillus subtilis* and *Pseudomonas mendocina* onto Fe-oxyhydroxide-coated and uncoated quartz grains. ***Geomicrobiology Journal*, 21, 511-519.**
- Kim, J.W.**[^], **Dong, H.**[^], Seabaugh, J.*, Newell, S.W., and Eberl, D.D. (2004) Role of Microbes in the Smectite to Illite Reaction. ***Science*, 303, 830-832. [^]: equal contribution.**
- Dong, H.**, Kostka, J.E. and Kim, J. (2003) Microscopic evidence for microbial dissolution of smectite. *Clays and Clay Minerals*, 51(5) 502-512.
- Dong, H.**, Kukkadapu, R.K., Fredrickson, J.K., Zachara, J.M., Kennedy, D.W. and Kostandarithes, H.M. (2003) Microbial reduction of structural Fe(III) in illite and goethite, *Environmental Science and Technology*, 37(7), 1268-1276.

- Musslewhite, C.L., McInerney, M.J., **Dong, H.**, Onstott, T.C., Green, M.X., Swift, D., Macnaughton, S., White, D.C., Murray, C., and Chien, Y.J. (2003) The factors controlling microbial distribution and activity in the shallow subsurface. *Geomicrobiology Journal*, 20, 245-261.
- Mailloux, B.J., Fuller, M.E., Onstott, T.C., Hall, J., **Dong, H.**, DeFlaun, M.F., Streger, S.H., Rothmel, R.K., Green, M., Swift, D.J.P., Radke, J. (2003). The role of physical, chemical, and microbial heterogeneity on the field-scale transport and attachment of bacteria. *Water Resources Research*, 39(6), 1142-1157.
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ABSTRACTS

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