



F. Leo Lynch

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Hi. I'm one of the soft-rock geologists at MSU. My training is in sandstone petrology and petrography, and clay mineralogy. I teach mineralogy, sedimentary geology, optical mineralogy and petrology, geochemistry, and clay mineralogy and X-ray diffraction.

Research

Before coming to State I was involved in a lot of research on nannobacteria – the incredibly small, Life-on-Mars-like-features that may be important to processes as diverse as sandstone diagenesis to the formation of arterial plaque. Much of my research these days continues to deal with the intimate interactions between organic material (humus, bacteria, and nannobacteria) and minerals. I've had several graduate students work on the geologic aspects of microbial enhanced oil recovery (MEOR) with researchers in the Department of Biology, and I'm also collaborating with a colleague from the Department of Plants and Soil Sciences looking at mineral/organic interactions in natural and anthropogenically modified soils. I'm staying true to my muddy roots though and have a grad student looking at the strange and bizarre clay mineralogy of the Yazoo Formation, responsible for cracked foundations and roller-coaster roads throughout Mississippi. Go to my Research Page for more info.

The facilities to undertake these and many other interesting research projects exist at MSU. I'm a North Jersey guy (you gotta problem with that?) and I'm happy in a small college town in Mississippi. Who'd have thunk it?

Education

Ph.D., The University of Texas at Austin, 1994

M.S., Dartmouth College, 1985

B.S., Tufts University, 1981

Experience

Associate Professor of Geology, Mississippi State University, present
Assistant Professor of Geology, Mississippi State University, 1999-2004
Research Associate, The University of Texas at Austin, 1994-1999
Instructor, Austin Community College, Austin, Texas, 1995-1997
Clay Mineralogist, Exxon Production Research Company, Houston, Texas, 1984-1987
Field Technician, N. J. Department of Environmental Protection, summer 1981
Field Technician, Rocky Mountain Energy Company, summer 1979

The Top 5 List: Five (Favorite? Best? Significant?) Pubs

Lynch, F. L., 1996, Mineral-water interaction, fluid flow, and Frio sandstone diagenesis: evidence from the rocks: *American Association of Petroleum Geologists Bulletin*, v. 80, p. 486-504.

Lynch, F. L., Mack, L. E., and Land, L. S., 1997, Burial-diagenesis of illite/smectite in shales and the origins of authigenic quartz and secondary porosity in sandstones: *Geochimica et Cosmochimica Acta.*, v. 61, p. 1995-2006.

Lynch, F. L., and Land, L. S., 1996, Diagenesis of calcite cement in Frio Formation sandstones and its relationship to formation water chemistry: *Journal of Sedimentary Research*, v. 66, p. 439-446.

Kirkland, B. L., Lynch, F. L., Rahnis, M. A., Folk, R. L., Molineux, I. J., and McLean, R. J. C., 1999, Alternative origins for nanobacteria-like objects in calcite: *Geology*, v. 27, p. 347-350.

Folk, R. L., and Lynch, F. L., 2001, Organic matter, putative nanobacteria, and the formation of ooids and hardgrounds: *Sedimentology*, v. 48, pp. 215-229.

Professional Affiliations

Associate editor *Journal of Sedimentary Research*
Registered Professional Geologist (#1848) Texas Board of Professional Geologists
Member Society of Economic Paleontologists and Mineralogists
Member Clay Minerals Society
Member Geological Society of America
Chair, SEPM Clastic Diagenesis Research Group, Baton Rouge, 2000
Co-Chair, SEPM Clastic Diagenesis Research Group, San Antonio, 1999

APA Souvenir Glass Collection



