

## **MEIXUN ZHAO**

### **ADDRESS:**

Department of Earth Sciences, Dartmouth College, Hanover, NH 03755, USA

Phone: (603) 646-2150; fax: (603) 646-3922;

Cellphone in China 13012412960

e-mail: [Meixun.Zhao@Dartmouth.edu](mailto:Meixun.Zhao@Dartmouth.edu), or [maxzhao04@yahoo.com](mailto:maxzhao04@yahoo.com)

### **PERSONAL:**

Place of Birth: Laiyang, P. R. China

Family: Married, one son

Citizenship: U.S.A.

### **EDUCATION:**

1982 **B.S. Chemistry**, Ocean University of China, Qingdao, P. R. China

1991 **Ph.D. Oceanography (Organic Geochemistry)**, Scripps Institution of Oceanography, University of California, San Diego

### **PROFESSIONAL EMPLOYMENT:**

2002-present **Associate Professor**, Department of Earth Sciences, Dartmouth College

1996-02 **Assistant Professor**, Department of Earth Sciences, Dartmouth College

1994-96 **Research Environmental Chemist**, Environmental Sciences Program, University of Massachusetts-Boston

1991-94 **Postdoctoral Research Associate**, Organic Geochemistry Unit, School of Chemistry and Biogeochemistry Centre, University of Bristol, UK

1985-90 **Research Assistant**, Scripps Institution of Oceanography, University of California, San Diego

1986 **Teaching Assistant**, Geochemistry, University of California, San Diego

1982-84 **Research Assistant**, Ocean University of China, Qingdao, P. R. China

### **PROFESSIONAL SOCIETIES:**

American Geophysical Union, The Geochemical Society, European Association of Organic

Geochemists

### **RESEARCH INTERESTS:**

Organic molecules in geological samples (i.e. biomarkers) and their compound-specific isotope signatures can be utilized to address problems in ocean and earth sciences, and for Quaternary paleoenvironmental reconstruction. My research topics encompass (i) ocean productivity and carbon cycle, (ii) the application of molecular stratigraphy in paleoceanography and paleoclimatology, (iii) the reconstruction of climate and vegetation history using plant biomarkers and compound-specific carbon isotopes, (iv) marine organic geochemistry, and (v) amino

acid biogeochemistry.

**Selected recent PUBLICATIONS:**

Zhao, M., Mercer, J., Higginson, M., Eglinton, G., Comparative molecular biomarker assessment of marine productivity of ODP Site 658 off Cap Blanc, N.W. Africa over the last 160 kyr., submitted to *Organic Geochemistry* (in press).

Zhao, M., Huang, C.Y., Wang, C.C., Wei, G., A millennial-scale U<sup>37</sup>k sea-surface temperature record from the South China Sea (8°N) over the last 150 kyr: Monsoon and sea-level influence, *Palaeogeography Palaeoclimatology Palaeoecology* (in press).

Zhang, Z., Zhao, M., Lu, H., Eglinton, G., Huang, C.Y., Leaf wax lipids as paleovegetational and paleoenvironmental proxies for the Chinese Loess Plateau over the last 170 kyr, *Quaternary Science Reviews* (in press).

Mercer, J., Zhao, M., Colman, S., Seasonal variations of alkenones and U<sup>37</sup>k in the Chesapeake Bay water column, *Estuarine, Coastal and Shelf Science*, 63, 675-682, 2005. <http://dx.doi.org/10.1016/j.ecss.2005.01.011>

Zhao, M., Huang, C.Y., Wei, K.Y., A 28,000 year U<sup>37</sup>k sea surface temperature record of ODP Site 1202B, Southern Okinawa Trough, *Terrestrial, Atmospheric and Oceanic Sciences (TAO)*, 16, 45-56, 2005.

Posmentier, E.S., Feng, X., Zhao, M., Seasonal variation of precipitation δ<sup>18</sup>O in Eastern Asia, *Journal of Geophysical Research*, 109, D23106, doi:10.1029/2004JD004510, 2004. <http://dx.doi.org/10.1029/2004JD004510>.

Mercer, J., Zhao, M., Alkenone stratigraphy of the Northern South China Sea for the past 35 million years: Sites 1147 and 1148, ODP Leg 184. In: (Prell, W.L., Wang, P., Blum, P., Rea, D.K., and Clemens, S.C., Eds), *Proceedings of the Ocean Drilling Program, Scientific Results*, **184**, 1-17, 2004.

Zhang, Z., Zhao, M., Yang, X., Wang, S., Jiang, X., Oldfield, F., Eglinton, G., A hydrocarbon biomarker record for the last 40 kyr of plant input to Lake Heqing, southwestern China, *Organic Geochemistry*, **35**, 595-613, 2004. <http://dx.doi.org/10.1016/j.orggeochem.2003.12.003>

Zhang Z., Zhao. M., Lu, M., Faiia, A., Lower temperature as the main cause of C4 plant declines during the glacial periods on the Chinese Loess Plateau, *Earth and Planetary Science Letters*, **214**, 467-481, 2003. [http://dx.doi.org/10.1016/S0012-821X\(03\)00387-X](http://dx.doi.org/10.1016/S0012-821X(03)00387-X)

Zhao, M., Dupont, L., Eglinton, G., Teece, M., *n*-Alkane and pollen reconstruction of terrestrial climate and vegetation for N.W. Africa over the last 160 kyr., *Organic Geochemistry*, **34**, 131–143, 2003. [http://dx.doi.org/10.1016/S0146-6380\(02\)00142-0](http://dx.doi.org/10.1016/S0146-6380(02)00142-0)

Huang, C.Y., Zhao, M., Wei, G., Wang, C.C., Cooling of the South China Sea by the Toba eruption and correlation with other climate proxies ~71,000 years ago, *Geophysical Research Letters*, **28**, 3915-3918, 2001.

Zhao, M., Eglinton, G., Read, G., Schimmelmann, A., An alkenone (U37K') quasi-annual sea surface temperature record (A.D. 1440 to 1940) using varved sediments from the Santa Barbara Basin, *Organic Geochemistry*, **31**, 903-917, 2000.

Zhao, M., Eglinton, G., Haslett, S.K., Jordan, R.W., Sarnthein, M., Zhang, Z., Marine and terrestrial biomarker records for the last 35,000 years at ODP site 658C off NW Africa, *Organic Geochemistry*, **31**, 919-930, 2000.

Chen, R.F., Jiang, J., Zhao, M., Solid-phase fluorescence detection of chlorins in marine sediments, *Organic Geochemistry*, **31**, 1755-1763, 2000.

Weaver, P.P.E., Chapman, M.R., Eglinton, G., Zhao, M., Rutledge, D., Read, G, Combined coccolith, foraminiferal and biomarker reconstruction of paleoceanographic conditions over the last 120 ka in the northern North Atlantic (59°N, 23°W), *Paleoceanography*, **14**, 336-349, 1999.

Schimmelmann, A., Zhao, M., Harvey, C.C., Lange, C.B., A large California flood and correlative global climatic events 400 years ago, *Quaternary Research*, **49**, 51-61, 1998.

Huang, C.Y., Wu, S.F., Zhao, M., Chen, M.T., Wang, C.H., Tu, X., Yuan, P.B., Surface ocean and monsoon climate variability in the South China Sea since the last glaciation, *Marine Micropalaeontology*, **32**, 71-94, 1997.

Harris, P.G., Zhao, M., Rosell-Mele, A., Tiedemann, R., Sarnthein, M., Maxwell, J.R., Chlorin accumulation rate as a proxy for Quaternary marine primary productivity, *Nature*, **383**, 63-65, 1996.