Majie Fan

(September 2016)
Assistant Professor
Department of Earth and Environmental Sciences
University of Texas at Arlington
Address: Geoscience Building, 500 Yates Street, Box 19049, Arlington, TX 76019
Phone: (001) (817) 272-9092; Fax: (001) (817) 272-2628; Email: mfan@uta.edu

APPOINTMENTS:

2011-present	**Assistant Professor**, Department of Earth and Environmental Sciences, University of Texas at Arlington
2010-2011	**Postdoctoral Researcher**, Department of Geology and Geophysics, University of Wyoming Advisors: Paul Heller, Barbara Carrapa
2009 fall	**Lecturer**, Department of Geosciences, University of Arizona
2009 summer	**Intern Geologist**, ExxonMobil Production Company, Houston, TX
2005-2009	**Research Specialist**, Environmental Isotope Laboratory, University of Arizona
2003-2005	**Research Assistant**, Department of Geosciences, University of Arizona

EDUCATION:

2009	**Ph.D.**, Geosciences, University of Arizona, Tucson, AZ
Advisors: Peter DeCelles, David Dettman	
2005	**M.S.**, Geosciences, University of Arizona, Tucson, AZ
2003	**M.S.**, Geology, Lanzhou University, Lanzhou, China
2000	**B.S.**, Geology, Lanzhou University, Lanzhou, China

PUBLICATIONS:

* indicates student and postdoc authors

In Review/Revision:

1. Al Salem, O.*, **Fan, M.**, and Xie, X., Provisionally accepted, Subsidence and burial histories of the Fort Worth Basin reflect prolonged Ouachita Orogeny during the Mississippian-Permian. *AAPG Bulletin*.
2. **Fan, M.**, Ayyash, S.*, Tripati, A.E., Passey, B.H., and Griffith, E, in revision, Terrestrial cooling in the western USA follows atmospheric pCO_2 during the Eocene–Oligocene transition.
3. **Fan, M.**, Feng, R., Geissman, J., and Poulsen, C.J., in review, Global cooling induced diachronous aridification in the Rocky Mountains during the latest Eocene-earliest Oligocene.
4. Jackson, J.D.*, **Fan, M.**, and Geissman, J.W., in review, Climate oscillations during the early Eocene Climatic Optimum documented by rock magnetic cyclostratigraphy of the lower (terrestrial) Eocene Wind River Formation, Wyoming, U.S.A.

5. **Fan, M.**, Constenius, K.N., and Dettman, D. L., in review, Prolonged high relief in the northern Cordilleran orogenic front during middle and late Eocene extension based on stable isotope paleoaltimetry.
6. Ma, Y.*, **Fan, M.**, Lu, Y., Liu, H., Hao, Y., Xie, Z., Liu, Z., Peng, L., and Du, X., in review, Climate-driven paleolimnological change controls lacustrine mudstone depositional process and organic matter accumulation: constraints from lithofacies and geochemical studies in the Zhanhua Depression, eastern China.

Published in Peer-Reviewed Journals:

1. Rowley, J.*, and **Fan, M.**, in press, Provenance of the Middle and Late Cenozoic eolian sandstone in the central Rocky Mountains: significance for paleoclimate, tectonics, and paleogeography. *Geosphere*.
2. Gao, M.*, **Fan, M.**, and Moucha, R., 2016, Southwestward weakening of Wyoming lithosphere during the Laramide orogeny. *Journal of Geophysical Research - Solid Earth*. DOI:10.1002/2016JB013130
3. Ma, Y.*, **Fan, M.**, Lu, Y., Guo, X., Hu H., Chen, L., Wang, C., and Liu, X., 2016, Geochemistry and sedimentology of the lower Silurian Longmaxi shale in southwestern China: implications for depositional controls on organic matter accumulation: *Marine and Petroleum Geology*, v.75, p. 291-309.
4. **Fan, M.**, Mankin, A.*, and Chamberlain, K., 2015, Provenance and chronology of the late Paleogene-early Neogene fluvial sedimentary rocks in the central Rocky Mountains: *Journal of Sedimentary Research*, v. 85, p.1416-1430.
5. **Fan, M.**, and Dettman, D.L., 2015, Hydrogen isotope measurement of bird feather keratin, one laboratory's response to evolving methodologies: *Isotopes in Environmental and Health Studies*, v.51, p.214-230.
6. **Fan, M.**, Hough, B.G.*, and Passey, B.H., 2014, Middle-late Cenozoic cooling and high topography in the central Rocky Mountains: constraints from clumped isotope geochemistry: *Earth and Planetary Science Letters*, v.408, p.35-47.
7. **Fan, M.**, Heller, P., Allen, S.D. *, and Hough, B.G. *, 2014, Middle Cenozoic uplift and concomitant drying in the central Rocky Mountains and adjacent Great Plains: *Geology*, v.42, p.540-550.
8. **Fan, M.**, and Carrapa, B., 2014, Late Cretaceous-early Eocene two-stage development of the Laramide deformation in Wyoming: *Tectonics*, v.3, p.509-529.
9. Hough, B. *, **Fan, M.**, and Passey, B.H., 2014, Clumped and oxygen isotope evidence for summer formation of soil carbonate in Wyoming and western Nebraska: *Earth and Planetary Science Letters*, v.391, p.110-120.
10. **Fan, M.**, 2014, The influence of reservoir stratigraphic heterogeneity on CO_2 sequestration capacity of depleted hydrocarbon reservoirs: a case study of the Lower Cretaceous Muddy Sandstone in the Powder River Basin, NE Wyoming: *Rocky Mountain Geology*, v. 49, p. 167-190.
11. Hyland, E.*, Sheldon, N.D., and **Fan, M.**, 2013, Terrestrial enviornment reconstructions indicate transient peak warming duing the Early Eocene Climatic Optimum: *GSA Bulletin*, v.125, p.1338-1348.
12. **Fan, M.**, DeCelles, P.G., Gehrels, G. E., Dettman, D.L., and Peyton, S. L., 2011, Sedimentology, detrital zircon geochronology, and stable isotope geochemistry of

the lower Eocene strata in the Wind River Basin, central Wyoming: *GSA Bulletin*, v.123, p.979-996.

13. **Fan, M.**, Quade, J., Dettman, D.L., and DeCelles, P.G., 2011, Widespread basement erosion in late Paleocene-early Eocene in the Laramide Rocky Mountains inferred from $^{87}Sr/^{86}Sr$ ratio of bivalve fossils: *GSA Bulletin,* v.123, p.2069-2082.
14. **Fan, M.**, and Dettman, D.L., 2009, Late Paleocene high Laramide ranges in northeast Wyoming: oxygen isotope study of ancient river water: *Earth and Planetary Science Letters*, v.286, p.110-121.
15. Xu, X., Fang, X., Song, C., **Fan, M.**, Shen, J., 2008, Grain-size records of Cenozoic lacustrine sediments from Linxia Basin: *Journal of Lake Sciences*, v.1, p.65-75 (in Chinese with English abstract).
16. DeCelles, P.G., Quade, J., Kapp, P., **Fan, M.**, Dettman, L.D., and Ding, L., 2007, High and dry in central Tibet during the late Oligocene: *Earth and Planetary Science Letters*, v.253, p.389-401.
17. **Fan, M.**, Dettman, D.L., Song, C., Fang, X., and Garizone, C.N., 2007, Climatic variation in the Linxia Basin, NE Tibetan Plateau, from 13.1 to 4.3 Ma: The stable isotope record: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v.247, p.313-328.
18. **Fan, M.**, Song, C., Dettman, D.L., Fang, X., and Xu, X., 2006, Intensification of the Asian winter monsoon after 7.4 Ma: grain-size evidence from the Linxia Basin, northeastern Tibetan Plateau, 13.1 Ma to 4.3 Ma: *Earth and Planetary Science Letters*, v.248, p.186-197.
19. Fang, X., Garzione, C.N., Van der Voo, R., Li, J., and **Fan, M.**, 2003, Flexural subsidence by 29 Ma on the NE edge of Tibet from the magnetostratigraphy of Linxia Basin, China: *Earth and Planetary Science Letters*, v.210, p.545-560.
20. **Fan, M**., and Song, C., 2003, Sedimentary environment analysis and the tectonic implications of the Linxia Basin in the northeast margin of the Tibetan Plateau: *Journal of Lanzhou University (Natural Science)*, v.3, p. 88-93 (in Chinese with English abstract).
21. Song, C., Fang, X., Li, J., Gao, J., Sun, D., **Fan, M.**, Yan, M., 2003, Pliocene sedimentary environment of the Guide Basin on the northeast margin of the Qinghai-Tibetan Plateau and its significance: *Quaternary Sciences*, v.23, p.93-102 (in Chinese with English abstract).
22. Song, C., Fang, X., Li, J., Gao, J., Zhao, Z., and **Fan, M.**, 2001, Tectonic uplift and sedimentary evolution of the Jiuxi Basin in the northern margin of the Tibetan Plateau since 13 Ma BP: *Science in China, Series D, Earth Sciences*, v.44, p. 192-202.
23. Song, C., Fang, X., Gao, P., Sun, D., **Fan, M.**, 2001, Cenozoic tectonic uplift and sedimentary evolution of the Guide Basin in the northeast margin of the Tibetan Plateau: Acta Sedimentologica Sinica, v.19, p. 498-506 (in Chinese with English abstract).

Abstracts:

1. **Fan, M.**, Constenius, K.N., and Dettman, D.L., 2016 (***invited***), Prolonged high relief in the northern Cordilleran orogenic front during middle and late Eocene extension

based on stable isotope paleoaltimetry: AGU Fall Meeting (San Francisco, CA).

2. **Fan, M.**, Feng, R., Geissman, J., and Poulsen, C.J., 2016, Global cooling induced diachronous aridification in the Rocky Mountains during the latest Eocene-earliest Oligocene: GSA Abstracts with Programs.
3. **Fan, M.**, 2016 (***invited***), Depositional ages, sediment provenance, and paleogeography in the central Great Plains and adjacent Rocky Mountains during late Paleogene: GSA Abstracts with Programs.
4. West, J. *, and **Fan, M.**, 2016, Cenozoic landscape evolution of the central Rocky Mountains: Interplay of Tectonics, Climate, and Surface Processes: GSA Abstracts with Programs.
5. Ma, Y.*, **Fan, M.**, Lu, Y., Liu, H., Hao, Y., Xie, Z., Liu, Z., Peng, L., and Du, X., 2016, Climate-driven paleolimnological change controls lacustrine mudstone depositional process and organic matter accumulation: constraints from lithofacies and geochemical studies in the Zhanhua Depression, eastern China: GSA Abstracts with Programs
6. Zhu, L.*, **Fan, M.**, Aslan, A., Tripati, A.E., Kirby, E.C., 2016, Evidence from three isotopic proxies for the establishment of high relief before Neogene in the upper stream drainage of the Colorado River: GSA Abstracts with Programs
7. Gao, M.*, and **Fan, M.**, 2016, Paleocene-early Eocene sedimentation and depositional environment in the Washakie Basin, Southwestern Wyoming, USA: implications for tectonic evolution during the overlapped Sevier and Laramide Orogenies: AAPG Annual Convention & Exhibition.
8. Kirkwood, D.*, and **Fan, M.**, 2016, Stable isotope compositions of early Eocene carbonates associated with fluvial sedimentation in central Wyoming: GSA South-Central Section 50th Annual Meeting (Baton Rouge, LS).
9. Godfrey, C.*, and **Fan, M.**, 2016, Stable isotope composition of Oligocene-Pliocene pedogenic and groundwater carbonates in the Texas coastal plain: implications for diagenesis and paleoclimate: GSA South-Central Section 50th Annual Meeting (Baton Rouge, LS).
10. Ma, Y.*, **Fan, M.**, and Lu, Y., 2015, Geochemistry and sedimentology of the lower Silurian Longmaxi Shale in southwestern China: implications for depositional controls on organic matter accumulation: GSA Abstracts with Programs.
11. Gao, M.*, and **Fan, M.**, 2015, Influence of Mantle Processes on the Formation of Petroleum-Bearing Basins in the Central Rocky Mountains, Western USA: AAPG Annual Convention & Exhibition.
12. Al Salem, O.*, **Fan, M.**, and Xie, X., 2015, The Late Paleozoic Subsidence Evolution of the Fort Worth Basin in North Central Texas, USA: AAPG Annual Convention & Exhibition.
13. Ayyash, S.A.*, **Fan, M.**, Passey, B.H., and Griffith, E.M., 2014,Late Eocene-Early Oligocene paleoclimate and paleoenvironment records from the White River formation in eastern Wyoming: GSA Abstracts with Programs.
14. **Fan, M.**, Hough, B.G.*, and Passey, B.H., 2014, Middle to late Cenozoic high topography and climate cooling in the central Rocky Mountains: constraints from clumped isotope geothermometry: GSA Abstracts with Programs.
15. Jackson, J.D. *, **Fan, M.**, and Geissman, J., 2014, Climate oscillations during the

early Eocene climatic optimum: constraints from rock magnetic cyclostratigraphy of the lower Eocene Wind River Formation, Wyoming: GSA Abstracts with Programs.

16. **Fan, M.**, 2014 (***invited***), Cenozoic topographic evolution of the central Rocky Mountains constrained from stable isotope geochemistry: GSA Abstracts with Programs.
17. Zamora, J.R.*, **Fan, M.**, Griffin, R., and Stern, R., 2014, Provenance of Pennsylvanian deltaic sandstone in the Fort Worth Basin: constraints from detrital zircon U-Pb geochronology: GSA South-Central Section 48th Annual Meeting (Fayetteville, AR).
18. **Fan, M.**, Hough, B.G.*, and Passey, B.H., 2013, Late Miocene paleoclimate and high topography in the central Rocky Mountains: constraints from integrated carbonate clumped and oxygen isotope and volcanic glass hydrogen isotope studies: GSA Abstracts with Programs.
19. Rowley, J.*, and **Fan, M.**, 2013, Timing, provenance, and paleoclimate implications of the late Cenozoic eolian deposition in the Central Rocky Mountains: GSA Abstracts with Programs.
20. Wang, S.*, Heller, P., Jones, N., **Fan, M.**, 2013, Flexural modeling of Laramide Basins in Wyoming: a test of paleoaltimetric and rigidity estimates: GSA Abstracts with Programs.
21. Al Salem, O.*, and **Fan, M.**, 2013, The subsidence evolution of the Paleozoic Forth Worth Basin in north-central Texas, USA: GSA South-Central Section 47th Annual Meeting (Austin, TX).
22. Hough B.G.*, and **Fan, M.**, 2012, Variability of the isotopic lapse rate across the mountain ranges in Wyoming: AGU Fall Meeting (San Francisco, CA).
23. **Fan, M.**, 2012 (***invited***), Sedimentary record of two-stage development of the Laramide deformation in Wyoming: MYRES (Meeting of Young Research in Earth Sciences) V-the Sedimentary Record of Landscape Dynamics (Salt Lake City, UT).
24. Allen, S.D.*, **Fan, M.**, and Hough B.G. *, 2012, Evaluating the influence of complete clay removal on the dD values of volcanic glass and its application to the late Cenozoic paleotopography in the central Rocky Mountains: GSA Rocky Mountain Section Meeting (Albuquerque, NM).
25. **Fan, M.**, and Hough*, B.G., 2011, Constraints on late Cenozoic elevation and climate in the central Rockies from integrated carbonate clumped and oxygen isotopes and volcanic glass hydrogen isotope studies: AGU Fall Meeting (San Francisco, CA).
26. Hyland, E.*, **Fan, M.**, and Sheldon, N.D., 2011, Paleoenvironmental reconstruction of the Early Eocene Wind River Formation in the Wind River Basin, Wyoming: AGU Fall Meeting (San Francisco, CA).
27. **Fan, M.**, and DeCelles, P.G., 2010, Late Paleocene-early Eocene accelerated Laramide deformation, exhumation, and elevation gain in Wyoming: GSA Abstracts with Programs, v.42, p.186.
28. Constenius, K.N., Dawson, M.R., **Fan, M.**, and Pierce, H.G., 2010, Paleogene faunas from the Kishenehn Formation in and around Glacier National Park: GSA Abstracts with Programs, v.42, p. 661.
29. Becker, T.P., McGroder M.F., Rudolph, K., Hauge T.A., and **Fan, M.**, 2010,

Paleogene influence of the Moxa arch on the architecture of the composite Darby-Hogsback-Prospect (DHP) thrust sheet near LaBarge, WY, U.S.A.: AAPG Annual Convention and Exhibition Abstracts, New Orleans, Louisiana, v.19, p.23.

30. Dettman, D.L., and **Fan, M.**, 2009, Isotope hydrology of the western Williston Basin, latest Maastrichtian: 9th North American Paleontological Convention, v.9, p.140.
31. **Fan, M.**, Quade, J., DeCelles, P.G., and Dettman, D.L., 2009, Widespread basement erosion in late Paleocene-early Eocene in the Laramide Rocky Mountains inferred from 87Sr/86Sr ratio of bivalve fossils: GSA Abstracts with Programs, v. 41, p.429.
32. **Fan, M.**, DeCelles, P.G., Gehrels, G. E., Dettman, D.L., and Peyton, S. L., 2008, Sedimentology, detrital zircon geochronology, and stable isotope paleoaltimetry of the early Eocene Wind River Basin: AGU Fall Meeting (San Francisco, CA). Abstract T53B-1936.
33. **Fan, M.**, and Dettman, D. L., 2006, Late Cretaceous-early Eocene isotope paleohydrology and paleoelevation of the Laramide Rocky Mountains using oxygen isotope ratios of geographically widespread freshwater bivalves: AGU Fall Meeting (San Francisco, CA). Abstract T32C-0528.
34. Quade, J., Saylor, J., **Fan, M.**, Dettman, D., DeCelles, P., and Kapp, P., 2006, Calibration and application of the Tibetan paleoaltimeter: AGU Fall Meeting (San Francisco, CA). Abstract T31E-02.
35. DeCelles, P.G., Kapp, P., Quade, J., **Fan, M.**, and Ding, L., 2005, High and dry: central Tibetan Plateau during the mid-Tertiary: AGU Fall Meeting (San Francisco, CA). Abstract T32C-03.
36. **Fan, M.**, Song, C., and Dettman, D. L., 2005, A late Miocene-early Pliocene record of atmospheric circulation change from the Linxia Basin, NW China: GSA Abstracts with Programs, v.37, p.363.
37. DeCelles, P.G., Kapp, P., Leier, A., Quade, J., and **Fan, M.**, 2004, Cretaceous-Tertiary basin evolution in the Lhasa terrane of southern Tibet: Responses to terrane collision, arc-trench tectonics, and progressive underthrusting of Greater India: GSA Abstracts with Programs, v.36, p.50.
38. Garzione, C.N., Song, C., Fang, X., Dettman, D.L., and **Fan, M.**, 2001, Oligocene-Pleistocene sedimentation in Linxia Basin on the northeastern edge of the Tibetan Plateau, Gansu Province, China: GSA Abstracts with Programs, v.33, p.356.
39. Dettman, D.L., Fang, X., Song, C., Garzione, C.N., Li, J., and **Fan, M.**, 2001, Using isotope paleohydrology to constrain the uplift of the Tibetan Plateau: the view from the northeast: GSA Abstracts with Programs, v. 33, p.259.

RESEARCH GRANTS:

1. NSF-Tectonics EAR-1454802: CAREER: Middle and late Cenozoic surface uplift and climate change along the strike of the Rocky Mountains: refining the evolution of an intracontinental mountain belt, $485,627. Sole PI. 06/01/15-05/30/20.
2. ACS-PRF-DNI # 54673-DNI8: Influence of mantle processes on the formation of petroleum-bearing basins in the central Rocky Mountains, western U.S.A., $110,000. Sole PI. 09/01/14-08/31/16.
3. UTA Research Enhancement Program grant: Evaluating two tectonic models

forming the high central Rockies by paleoelevation reconstruction, $10,000. Sole PI. 05/31/2013-08/30/2014.

4. NSF-Tectonics EAR-1119005: *Reconstructing the late Cenozoic history of surface uplift and climate change in the central Rockies*, $304,179. PI: Paul Heller (University of Wyoming), CO-PI: M. Fan. $223,530 was subcontracted to UTA. 05/31/2011-05/30/14.

AWARDS:

2015 NSF CAREER Award

INVITED SEMINAR TALKS:

1. 06/2016 China University of Geosciences at Wuhan
   Title: Stable and clumped isotope record of surface uplift and climate changes in the central Rocky Mountains
2. 02/2016 Texas Geologic Society
   Title: The Chinese Loess Plateau: its people, culture, and geology
3. 09/2015 University of Houston
   Title: Stable and clumped isotope record of surface uplift and climate changes in the central Rocky Mountains
4. 02/2015 Texas A&M University
   Title: Stable and clumped isotope record of surface uplift and climate changes in the central Rocky Mountains
5. 02/2015 University of Tulsa
   Title: Paleozoic evolution of the Forth Worth Basin in north-central Texas: constraints from basin subsidence and sediment provenance
6. 11/2014 University of Northern Texas
   Title: Stable and clumped isotope record of surface uplift and climate changes in the central Rocky Mountains
7. 11/2014 Southern Methodist University
   Title: Stable and clumped isotope record of surface uplift and climate changes in the central Rocky Mountains
8. 07/2013 Institute of Tibetan Plateau Research, Chinese Academy of Science, China
   Title: How did the high central Rockies Form? A tale of multi-stage uplift from sedimentary record
9. 07/2013 Lanzhou University, China
   Title: How did the high central Rockies Form? A tale of multi-stage uplift from sedimentary record
10. 11/2012 University of Oklahoma
    Title: Title: How did the high central Rockies Form? A tale of multi-stage uplift from sedimentary record
11. 01/2012 University of Texas at Dallas
    Title: How did the high central Rockies Form? A tale of multi-stage uplift from sedimentary record
12. 03/2011 University of Texas at Arlington

Title: Multiple stages of Laramide uplift: constraints from sediment provenance, paleoaltimetry, and well-log data

13. 03/2011 Northern Illinois University
    Title: Stable isotope records of Cenozoic topography and climate in the Laramide Rocky Mountains
14. 02/2011 University of Alabama
    Title: New research perspectives of sedimentary record in Laramide Rocky Mountains
15. 10/2010 Georgia State University
    Title: New research perspectives of sedimentary record in Laramide Rocky Mountains
16. 04/2010 Missouri University of Science and Technology
    Title: Sedimentary Record of Laramide Tectonics
17. 03/2010 University of Kentucky
    Title: Sedimentary Record of Laramide Tectonics

PROFESSIONAL SERVICES:

Department, College, and University Services:

1. 2016-2017, Organize department weekly tech session
2. 2016, Member of search committee for faculty in environmental health
3. 2015, Department representative when interviewing Dean for College of Science
4. 2015, Member of UTA CAREER proposal discussion panel
5. 2014, 2016, Volunteer judge at Annual Celebration of Excellence by Students (ACES) symposium, UTA
6. 2014-Discuss the art of networking with students in science week, College of Science
7. 2014-current, GSA campus representative
8. 2013-current, Manage UTA Light Stable Isotope Laboratory
9. 2013-2014, Review department UTA-REP proposals
10. 2012-current, Attain 21 Petromod 1D and 2D licenses (A total value of $2,649,600) from Schlumberger for teaching and research
11. 2011-2012, Member of search committee for department chair
12. 2011-2012, Member of search committee for junior faculty in the broad field of geosciences
13. 2011-2012: Member of committee in discussing potential joint PhD in Geosciences with the Department of Geosciences at UTD

Community Services:

1. 2015, UTA Geocamp leader. The camp outreached 15 underrepresented high school students from Arlington Independent School District
2. 2014; 2016, volunteer judge at Fort Worth Regional Science and Engineering Fair

Scientific Community Services:

1. 2016, Scientific committee member of Climate and Biotic Events of the Paleocene (CBEP) in 2017
2. 2015, NSF-tectonics panelist
3. Abstract reviewer for 2015 AAPG annual meeting.
4. Proposal reviewer for: National Science Foundation-Tectonics (5), Instrumentation and Facilities (1), CAREER (1), Postdoc-Fellowship (1), Geomorphology and Land-use Dynamics (2), P2C2 (1); American Chemical Society-Petroleum Research Fund (3); Louisiana Board of Regents' Pilot Funding for New Research Program (1).
5. Manuscript reviewer for: Geology (4); Earth and Planetary Science Letters (4); American Journal of Science (1); Journal of Asian Earth Science (1); Gondwana Research (1); Geochimica et Comochimica Acta (1); Sedimentology (1); Sedimentary Geology (1); Tectonics (1); Aeolian Research (1); Terra Nova (1); Palaeogeography, Palaeoclimatology, Palaeoecology (3); Science China-Earth Sciences (1); International Geology Review (1); Journal of Sedimentary Research (1); Nature Scientific Report (1); Global and Planetary Change (1).

Meeting Convener:

1. 2016, GSA National Meeting (Denver, CO) Session Co-convener, *From mantle to landscape: Cenozoic evolution of the Rocky Mountains.*
2. 2014, GSA National Meeting (Vancouver, CA) Session Co-convener, *Stable and clumped isotope record of topography, climate, and environments: challenges and recent advances.*
3. 2011, AGU Fall Meeting (San Francisco) Session Co-convener, *Tectonics, erosion and paleoclimate: insights from geochemistry, paleobiology, geochronology, and modeling.*

COURSES TAUGHT:

Year	Semester	Course No./Title	Hrs	Enrollment
16	Fall	Tectonics and Isotopes (GEOL 4305/5335)	3	9
15(cotaught)	Fall	Stable Isotope Geochemistry (GEOL 4350/5332)	3	14
13	Fall	Stable Isotope Geochemistry (GEOL 4350/5332)	3	8
12,14-16	Fall	Basin Analysis (GEOL 4346/5371)	3	19-25
12,13	Fall	Sedimentary System (GEOL5370)	3	13-15
12-15	Spring	Sedimentology and Stratigraphy (GEOL 3442)	4	35-45
11	Fall	Sequence Stratigraphy (GEOL 4307,5369)	3	12

ADVISEES:

Principle Advisor:

- Current postdoctoral scholar:

1. Lin Li (August 2016-DeCember 2017 (expected)). Project title: *Cenozoic topography and basin evolution in the eastern Qiangang terrane*.

- Current Ph.D. students:

1. Min Gao (August 2012-May 2017 (expected)). Dissertation title: *Tectonic processes*

of Laramide deformation: constraints from basin subsidence modeling and sedimentary record.

2. Ohood B Al Salem (August 2014-May 2018 (expected)). Dissertation title: *Basin subsidence and depositional process recorded in the Middle and Upper Pennsylvanian sandstone in the Fort Worth Basin, north-central Texas*.
3. Lu Zhu (August 2015-May 2019 (expected)). Dissertation title: *Calibration of isotope paleoaltimeters and middle to late Cenozoic depositional history along the strike of the Rocky Mountains*.
4. Yiquan Ma (co-advise), visiting PhD student from China University of Geoscience at Wuhan. Dissertation project: *Lacustrine shale stratigraphy and early Eocene climate recorded in the Jiyang depression in east China*.

- Current M.S. students:

1. Jenna West (August 2014-DeCember 2016 (expected)). Thesis title: *Cenozoic landscape evolution of the central Rockies: insights from numerical modeling*.
2. Conan Godfrey (August 2014-DeCember 2016 (expected)). Thesis title: *Stable isotope record of Cenozoic climate in Texas gulf coast plain*.
3. Daniel Kirkwood (January 2015-May 2017 (expected)). Thesis title: *Stable isotope record of climate oscillation during the Early Eocene Climate Optimum in Wyoming*.
4. Mark Hammond (August 2016-May 2018 (expected)). Thesis title: *Stable isotope record of Neogene climate and paleoelevation in southern Alaska*.

- Current undergraduate students:

1. Tiffany Snow (June 2015-current): process samples for organic and carbonate carbon isotope analysis.
2. Jackie Garcia (February 2015-current): process samples for organic and carbonate carbon isotope analysis, conduct field assistance in Wyoming.

- Current high-school student:

1. Britney A. Santana (August 2016): process samples for carbonate carbon and oxygen isotope analysis, and process climate data.

- Former graduate students:

1. Sara Ayyash, M.S., August 2013-December 2015. Thesis title: No major changes on *paleoclimate and paleoenvironment across the Eocene-early Oligocene transition in the central Rocky Mountains.*
2. Juan Zamora, thesis track in August 2013-December 2014. Transferred to non-thesis track.
3. Ohood B Al Salem, M.S., August 2012-August 2014. Thesis title: *Late Paleozoic subsidence evolution of the Forth Worth Basin in north-central Texas*.
4. Jillian Rowley, M.S., August 2011-December 2013. Thesis title: *Timing, provenance, and paleoclimate implications of the Cenozoic eolian deposition in the Central Rocky Mountains*.
5. Alex Mankin, M.S., August 2011-May 2014. Thesis title: *Provenance and tectonic*

implications of the middle-late Cenozoic fluvial deposition in the Central Rocky Mountains.

- Former postdoctoral and visiting scholars:

1. Xiangquan Li (December 2012-January 2014). Project title: *Tectonic evolution of the East China Sea Basin and detrital zircon record of the Junggar Basin*.
2. Brian Hough (July 2011-Februray 2013). Project title: *Calibration of soil carbonate clumped isotope geothermometer and evaluation of influence of climate change on river water stable isotope ratios in Wyoming and Nebraska*.

- Former undergraduate students:

1. Elizabeth Brown (November 2015-May 2016): conducted honors thesis research. Title: *detrital zircon study of the middle and late Cenozoic fluvial sedimentary rocks in south Texas*.
2. Julio Zelaya (January-April 2016): separated minerals from sedimentary rocks.
3. Mohamad Khan (June-December 2015): processed samples for organic and carbonate carbon isotope analysis.
4. Aaron Stein (January-May 2015): processed samples for organic and carbonate carbon isotope analysis.
5. Patricia Garay (June-July 2014; January-May 2015): assisted fieldwork in Wyoming; processed samples for organic and carbonate carbon isotope analysis.
6. Budd Dillard (September-December 2014): processed samples for organic carbon isotope analysis.
7. William Hoffman (August-December 2014): characterized a transition from fluvial to eolian depositional environment using sediment grain size distribution and magnetic properties.
8. Daniel Kirkwood (January-August 2013): made thin sections and identified mineral compositions of sandstone.
9. Sarah Allen (May 2011-May 2012): assisted fieldwork in Wyoming, and constrained the late Cenozoic topographic relief between the central Rockies and western Great Plains using volcanic glass hydrogen isotope composition.

Committee Member:

- Former students:

Jacob Jackson (Ph.D. at UT Dallas, 2016); Matthew Ray (M.S., 2016, non-thesis); Cullen Boyd (M.S., 2016, non-thesis); Taylor Hughlett (Ph.D., 2016); Richard Goldberg (M.S., 2016); Tristan O'Shea (M.S., 2015, non-thesis); Alexander Miller (M.S., 2015); Paul Higgins (M.S., 2015); Jennifer Beyer (M.S., 2015); Samantha Carter (M.S., 2015); Okwuosa Chukwuma (M.S., 2015); Marshall Davis (M.S., 2014); Melanie Ybarra (M.S., 2014); Robert Rogers (Ph.D., 2014); Paul Monahan (M.S., 2013); Krystin Mcafee (M.S., 2012); Ugochukwu Ononogbu (M.S., 2012); Simon Obame Bivegue (M.S., 2012)

- Current students:

Mike Sweatt (Ph.D.); Puloma Chakrabarty (Ph.D.); Chris Borjas (Ph.D.); Rene St. Julien (Ph.D.); Jonathon Bogacz (M.S.); Samantha Carter (Ph.D.)

Student Honor and Awards

1. Conan Godfrey, 2015, Scholarship ($2000) from the Fort Worth Geological Society.
2. Ohood B Al Salem, 2015, research grant ($2500) from the GCSSEPM Foundation
3. Min Gao, 2014, research grant ($900) from GSA
4. Ohood B Al Salem, 2014, research grant ($2000) from the GCAGS (Gulf Coast Association of Geological Societies)
5. Juan Zamora, 2014, Travel grant ($500) from the GSA On To The Future Program
6. Jillian Rowley, 2013, Scholarship to the ExxonMobil/GSA Bighorn Basin Field School
7. Jillian Rowley, 2012, research grant ($1000) from the East Texas Geological Society
8. Jillian Rowley, 2012, research grant ($1000) from the Dallas Geological Society
9. Jillian Rowley, 2012, research grant ($1500) from the Gas Society of East Texas
10. Sarah Allen, 2012, travel grant ($100) from the GSA Rocky Mountain section

ACADEMIC MEMBERSHIP:

1. Member of the Geologic Society of America
2. Member of the American Geophysical Union
3. Member of the American Association of Petroleum Geologists