Dr. Mark Albert Torres

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EDUCATION

UNIVERSITY OF SOUTHERN CALIFORNIA
Ph.D. in Geochemistry
August 2015 | Los Angeles, CA

PITZER COLLEGE
B.A. in Geology
(with honors)
May 2010 | Claremont,CA
minor: Environmental Studies

TEACHING

COURSES @ RICE
Biogeochemistry
(Spring 2018)

ADVISING

Trevor Cole (2017-)[a]
Juliana Spector (2017-)[a]
Daisy Arriaga (2013)[d]
Kevin DiBella (2013)[c]
Travis Dagdigian (2012)[b]
Natalie DeVries (2012)[c]
David Hercules (2012)[d]

[a] Ph.D. student
[b] undergraduate thesis student
[c] summer undergraduate student
[d] summer highschool student

ACADEMIC APPOINTMENTS

RICE UNIVERSITY | Assistant Professor (2017 -)
Department of Earth, Environmental, & Planetary Sciences
2300 Main Street, Houston, TX 77005

CALTECH | Texaco Postdoctoral Fellow (2015-2017)
Supervisors: Dr. Michael Lamb and Dr. Woodward Fisher

HONORS AND AWARDS

2015	Postdoctoral fellowship	California Alliance (AGEP)
2015	Postdoctoral fellowship	California Institute of Technology
2013	Graduate Fellowship	C-DEBI (NSF sponsored)
2013	Graduate Fellowship	USC (Research Enhancement)
2010	Graduate Fellowship	USC (College Doctoral)
2010	D.B. McIntyre-H. Stanton Hill Award	Pomona College

FUNDING

2015	Postdoctoral fellowship	California Institute of Technology
2013	Graduate Fellowship	C-DEBI (NSF sponsored)
2013	Graduate Fellowship	USC (Research Enhancement)
2013	Research Funding	Society for Sedimentary Geology (SEPM)
2013	Research Funding	International Association of Geochemistry

PROFESSIONAL ACTIVITY & OUTREACH

- Invited reviewer: Geochimica et Cosmochimica Acta, Chemical Geology, American Journal of Science, Science, and Nature Geoscience
- Invited lecturer: Stanford U., Brown U., Caltech, Pomona College, UCLA, and the 2014 Geobiology Summer Course
- Program coordinator/Student Mentor for USC Young Researchers Program (2010-2014). Program pairs high school students from under-represented communities with STEM graduate students

Publications

In Preparation

[IP1] M. A. Torres, G. Paris, Jess F. Adkins, and W. W. Fischer. A riverine perspective on Earth's early sulfur cycle. In Prep.

In Revision / Submitted / Accepted

[IR1] M.A. Torres, S. Dong, A.J. West, and K.H. Nealson. Microbial acceleration of olivine dissolution via siderophore production. In Revision.

[IR2] M.A. Torres, A.B. Limaye, V Ganti, M.P Lamb, A.J. West, and W.W. Fischer. Model predictions of long-lived storage of organic carbon in river deposits. ESurf Discussions.

Published

[P1] M. A. Torres, N. Moosdorf, J. Hartmann, Jess F. Adkins, and A. J. West. Glacial weathering, sulfide oxidation, and global carbon cycle feedbacks. Proceedings of the National Academy of Sciences, 2017.

[P2] M.A. Torres, J.J. Baronas, K.E. Clark, S.J Feakins, and A.J. West. Mixing as a driver of temporal variations in river hydrochemistry. Part 1: insights from conservative tracers in the Andes-Amazon. Water Resources Research, 2017.

[P3] J.J. Baronas, M.A. Torres, K.E. Clark, and A.J. West. Mixing as a driver of temporal variations in river hydrochemistry. Part 2: Major and trace element concentration dynamics in the Andes-Amazon. Water Resources Research, 2017.

[P4] M. A. Torres, A.J. West, K.E. Clark, G. Paris, J. Bouchez, C. Ponton, S.J. Feakins, Galy V., and J.F. Adkins. The acid and alkalinity budgets of weathering in the andes-amazon system: Insights into the erosional control of global biogeochemical cycles. Earth and Planetary Science Letters, 2016.

[P5] M.A. Torres, A.J. West, and K. E. Clark. Geomorphic regime modulates hydrologic control of chemical weathering in the Andes-Amazon. Geochimica et Cosmochimica Acta, 2015.

[P6] M.A. Torres, A.J. West, and G. Li. Sulphide oxidation and carbonate dissolution as a source of CO_2 over geological timescales. Nature, 2014.

[P7] K.E. Clark, M.A. Torres, A.J. West, R.G. Hilton, M. New, A.B. Horwath, J.B. Fisher, J.M. Rapp, A. Robles Caceres, and Y. Malhi. The hydrological regime of a forested tropical Andean catchment. Hydrology and Earth System Sciences, 2014.

[P8] M.A. Torres and R.R. Gaines. Paleoenvironmental and Paleoclimatic Interpretations of the Late Paleocene Goler Formation, Southern California, USA, Based On Paleosol Geochemistry. Journal of Sedimentary Research, 2013.

Selected Abstracts

[A1] P. Kemeny, M.A. Torres, S. Webb, M. Lamb, J.F. Adkins, and W.W. Fischer. Organic Sulfur Fluxes and Isotope Mass Balance in Rivers. In Goldschmidt Proceedings, 2017.

[A2] M. Dellinger, R. G. Hilton, A. J. West, M. Torres, K. W. Burton, K. E. Clark, and J. J. Baronas. Tracing oxidative weathering from the Andes to the lowland Amazon Basin using dissoved rhenium. In AGU Proceedings, 2016.

[A3] M. A. Torres, M. Dellinger, K. E. Clark, A. J. West, G. Paris, J. Bouchez, C. Ponton, S. J. Feakins, V. Galy, R. G. Hilton, and J. F. Adkins. Invited: Tectonic Control of the Acid and Alkalinity Budgets of Chemical Weathering. In AGU Proceedings, 2016.

[A4] M. A. Torres, A. B. S. Limaye, V. Ganti, A. J. West, W. W. Fischer, and M. P. Lamb. Floodplain dynamics control the age distribution of organic carbon in large rivers. In AGU Proceedings, 2016.

[A5] J.J. Baronas, M.A. Torres, A.J. West, D.E. Hammond, K.E. Clark, S. Opfergelt, and K.W. Burton. Combining Ge/Si, δ30Si, and δ74Ge to Unravel Controls on Weathering and Solute Production in Tropical Catchments. In Goldschmidt Proceedings, 2015.

[A6] M. A. Torres, A. J. West, and K. H. Nealson. Microbial Acceleration of Olivine Dissolution via Siderophore Production. In Procedia Earth and Planetary Science, 2014.

[A7] A.J. West, M.A. Torres, and K.H. Nealson. Understanding the potential for distributed carbon capture through (bio-) enhanced weathering. In AGU Proceedings, 2014.