CURRICULUM VITAE

YONGSONG HUANG

Professor, Department of Geological Sciences, Brown University, Providence, RI02912, USA

EDUCATION

Ph.D. (5/1997)	Organic Geochemistry	School of Chemistry, University of Bristol, UK
Ph.D. (10/1990)	Petroleum Geochemistry	Institute of Geochemistry, Chinese Academy of Sciences
M.S. (6/1987)	Analytical Chemistry	Department of Chemistry, Sichuan University
B.Sc. (6/1984)	Geochemistry	Department of Earth & Planetary Science, University of Science and Technology of China

PROFESSIONAL APPOINTMENTS

7/1/2012-	Professor, Department of Geological Sciences, Brown University
1/1/2006-	Associate Professor, Department of Geological Sciences, Brown University
1/1/2000	Assistant Professor, Department of Geological Sciences, Brown University
4-6/1999 & 10-11/1997	Guest Investigator, Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution (Collaborator: Dr. T. I. Eglinton)
5/1997-12/1999	Research Associate, Biogeochemistry Group, Department of Geosciences, Pennsylvania State University (Advisor: Prof. K.H. Freeman)
10/1993-11/1993	Visiting scientist, Biogeochemistry Laboratories, Indiana University, Bloomington, USA (Advisor: Prof. John M. Hayes)
10/1991-5/1997	Research Assistant, School of Chemistry, University of Bristol (Advisor: Prof. Geoffrey Eglinton, FRS)
7/1990-9/1991	Research Scientist, Institute of Geochemistry, Chinese Academy of Sciences

RESEARCH AND SCHOLARSHIP

I. GOOGLE CITATION REPORT (UPDATED ON JAN. 5, 2023)

Citation indices	All	Since 2017
Citations	16807	6568
h-index	70	43
i10-index	184	146

Total Number of citations in 2022 = 1362

II. Refereed Publications (*First author is/was graduate advisee, or #postdoc advisee)

1. Julie Loisel, Kristen Sarna, Zhengyu Xia, Yongsong Huang and Zicheng Yu, 2022. Concordant changes in late Holocene hydroclimate across southern Patagonia modulated by westerly winds and the El Niño–Southern Oscillation. Geology, https://doi.org/10.1130/G50680.1
2. Mitsunaga, B.A., Novak, J., Zhao, X., Dillon, J.A., Huang, Y. and Herbert, T.D., 2022. Alkenone δ2H values–a viable seawater isotope proxy? New core-top δ2HC37: 3 and δ2HC37: 2 data suggest inter-alkenone and alkenone-water hydrogen isotope fractionation are independent of temperature and salinity. *Geochimica et Cosmochimica Acta*, *339*, pp.139-156.
3. *Liao, S., Wang, K.J. and Huang, Y., 2022. Unusually high production of C37: 4 alkenone by an Arctic Gephyrocapsa huxleyi strain grown under nutrient-replete conditions. *Organic Geochemistry*, p.104539.
4. *Liao, S. and Huang, Y., 2022. Group 2i Isochrysidales flourishes at exceedingly low growth temperatures (0 to 6° C). *Organic Geochemistry*, *174*, p.104512.
5. #Guo, F., Gao, M., Dong, J., Sun, J., Hou, G., Liu, S., Du, X., Yang, S., Liu, J. and Huang, Y., 2022. The first high resolution PAH record of industrialization over the past 200 years in Liaodong Bay, northeastern China. *Water Research*, *224*, p.119103.
6. Wang, L., Yao, Y., Huang, Y., Cai, Y. and Cheng, H., 2022. Group 1 phylogeny and alkenone distributions in a freshwater volcanic lake of northeastern China: Implications for paleotemperature reconstructions. *Organic Geochemistry*, *172*, p.104483.
7. #Zhao, J., Tsai, V.C. and Huang, Y., 2022. A nonlinear model for resolving the temperature bias of branched glycerol dialkyl glycerol tetraether (brGDGT) temperature proxies. *Geochimica et Cosmochimica Acta*, *327*, pp.158-169.
8. Vachula, R.S., Karp, A.T., Denis, E.H., Balascio, N.L., Canuel, E.A. and Huang, Y., 2022. Spatially calibrating polycyclic aromatic hydrocarbons (PAHs) as proxies of area burned by vegetation fires: Insights from comparisons of historical data and sedimentary PAH fluxes. *Palaeogeography, Palaeoclimatology, Palaeoecology*, *596*, p.110995.
9. *Novak, J., McGrath, S.M., Wang, K.J., Liao, S., Clemens, S.C., Kuhnt, W. and Huang, Y., 2022. U38MEK′ Expands the linear dynamic range of the alkenone sea surface temperature proxy. Geochimica et Cosmochimica Acta. https://doi.org/10.1016/j.gca.2022.04.021
10. Yamamoto, M., Clemens, S.C., Seki, O., Tsuchiya, Y., Huang, Y., O'ishi, R. and Abe-Ouchi, A., 2022. Increased interglacial atmospheric CO2 levels followed the mid-Pleistocene Transition. Nature Geoscience, 15(4), pp.307-313.
11. *Liao, S. and Huang, Y., 2022. Preferential formation of mono-dimethyl disulfide adducts for determining double bond positions of poly-unsaturated fatty acids. Journal of the American Oil Chemists' Society, 99(4), pp.279-288.
12. P. M. Raposeiro et al. , Climate change facilitated the early colonization of the Azores Archipelago during medieval times . Proc. Natl. Acad. Sci. U.S.A. 118 , e2108236118 (2021).

13. Pedro M. Raposeiro*, Armand Hernández, Sergi Pla-Rabes, Vítor Gonçalves, Roberto Bao, Alberto Sáez, Timothy Shanahan, Mario Benavente, Erik J. de Boer, Nora Richter, Verónica Gordon, Helena Marques, Pedro M. Sousa, Martín Souto, Miguel G. Matias, Nicole Aguiar, Cátia Pereira, Catarina Ritter, María Jesús Rubio, Marina SalcedoShow lessDavid Vázquez-Loureiro, Olga Margalef, Linda A. Amaral-Zettler, Ana Cristina Costa, Yongsong Huang, Jacqueline F.N. van Leeuwen, Pere Masqué, Ricardo Prego, Ana Carolina Ruiz-Fernández, Joan Albert Sanchez-Cabeza, Ricardo Trigo, Santiago Giralt, 2022. "Reply to Elias et al.: Multiproxy evidence of widespread landscape disturbance in multiple Azorean lakes before the Portuguese arrival." Proceedings of the National Academy of Sciences 119.4 (2022): e2120107119.
14. #Yao, Y., Zhao, J., Vachula, R.S., Liao, S., Li, G., Pearson, E.J. and Huang, Y., 2022. Phylogeny, alkenone profiles and ecology of Isochrysidales subclades in saline lakes: Implications for paleosalinity and paleotemperature reconstructions. Geochimica et Cosmochimica Acta, 317, pp.472-487.
15. #Yuan Yao, Yongsong Huang, Jiaju Zhao, Li Wang, Hai Cheng, (2021) Lipid biomarkers in Lake Wudalianchi record abrupt environmental changes from the volcanic eruption in 1776, Organic Geochemistry, https://doi.org/10.1016/j.orggeochem.2021.104349.
16. *Liao, S, Huang, Y. (2021) Preferential formation of mono-dimethyl disulfide adducts for determining double bond positions of poly-unsaturated fatty acids. J Am Oil Chem Soc. 2021; 1– 10. https://doi.org/10.1002/aocs.12561.
17. *Liao, S, Sherman, G, Huang, Y. (2021) Elucidation of double-bond positions of polyunsaturated alkenes through gas chromatography/mass spectrometry analysis of mono-dimethyl disulfide derivatives. Rapid Commun Mass Spectrom. 36(3):e9228. doi:10.1002/rcm.9228.
18. #Yuan Yao, Jiaju Zhao, Richard S. Vachula, Sian Liao, Gaoyuan Li, Emma J. Pearson, Yongsong Huang, (2021) Phylogeny, alkenone profiles and ecology of Isochrysidales subclades in saline lakes: Implications for paleosalinity and paleotemperature reconstructions, Geochimica et Cosmochimica Acta 317, https://doi.org/10.1016/j.gca.2021.11.001.
19. *Sian Liao, Karen J. Wang, Yongsong Huang, (2021) Extended chain length alkenoates differentiate three Isochrysidales groups, Organic Geochemistry 161, https://doi.org/10.1016/j.orggeochem.2021.104303.
20. Pedro M. Raposeiro, Armand Hernández, Sergi Pla-Rabes, Vítor Gonçalves, Roberto Bao, Alberto Sáez, Timothy Shanahan, Mario Benavente, Erik J. de Boer, Nora Richter, Verónica Gordon, Helena Marques, Pedro M. Sousa, Martín Souto, Miguel G. Matias, Nicole Aguiar, Cátia Pereira, Catarina Ritter, María Jesús Rubio, Marina Salcedo, David Vázquez-Loureiro, Olga Margalef, Linda A. Amaral-Zettler, Ana Cristina Costa, Yongsong Huang, Jacqueline F. N. van Leeuwen, Pere Masqué, Ricardo Prego, Ana Carolina Ruiz-Fernández, Joan-Albert Sanchez-Cabeza, Ricardo Trigo, Santiago Giralt (2021) Climate change facilitated the early colonization of the Azores Archipelago during medieval times. Proceedings of the National Academy of Sciences Oct 2021, 118 (41) e2108236118; DOI: 10.1073/pnas.2108236118
21. *W.C. Daniels, J.M. Russell, C. Morrill, W.M. Longo, A.E. Giblin, P. Holland-Stergar, J.M. Welker, X. Wen, A. Hu, Y. Huang, (2021) Lacustrine leaf wax hydrogen isotopes indicate

strong regional climate feedbacks in Beringia since the last ice age, Quaternary Science Reviews 269, https://doi.org/10.1016/j.quascirev.2021.107130.
22. *Nora Richter, James M Russell, Johanna Garfinkel, Yongsong Huang (2021) Winter–spring warming in the North Atlantic during the last 2000 years: evidence from southwest Iceland. Climat of the Past 17, 1363-1383.
23. Yongsong Huang, Yinsui Zheng, Patrick Heng, Liviu Giosan, Marco J.L. Coolen, (2021) Black Sea paleosalinity evolution since the last deglaciation reconstructed from alkenone-inferred Isochrysidales diversity, Earth and Planetary Science Letters 564, https://doi.org/10.1016/j.epsl.2021.116881.
24. Jie Liang, Rachel L. Lupien, Haichao Xie, Richard S. Vachula, Mark A. Stevenson, Bo-Ping Han, Qiuqi Lin, Yue He, Mingda Wang, Peng Liang, Yongsong Huang, Suzanne McGowan, Juzhi Hou, James M. Russell, (2021) Lake ecosystem on the Qinghai–Tibetan Plateau severely altered by climatic warming and human activity, Palaeogeography, Palaeoclimatology, Palaeoecology 576, https://doi.org/10.1016/j.palaeo.2021.110509.
25. #Yuan Yao, Yongsong Huang, Jiaju Zhao, Li Wang, Youhua Ran, Weiguo Liu, Hai Cheng; (2021) Permafrost thaw induced abrupt changes in hydrology and carbon cycling in Lake Wudalianchi, northeastern China. Geology 49 (9): 1117–1121. doi: https://doi.org/10.1130/G48891.1
26. *Sian Liao, Karen J. Wang, Yazhen Xue, Jingfeng Huo, Ewerton Santos, Jianbo Wang, Carsten J. Schubert, Yongsong Huang, (2021) Novel methyl-branched alkenones with up to five double bonds in saline lakes, Organic Geochemistry 156, https://doi.org/10.1016/j.orggeochem.2021.104243.
27. *Sian Liao, James T. Dillon, Cancan Huang, Ewerton Santos, Yongsong Huang, (2021) Silver (I)-dimercaptotriazine functionalized silica: A highly selective liquid chromatography stationary phase targeting unsaturated molecules, Journal of Chromatography A 1645, https://doi.org/10.1016/j.chroma.2021.462122.
28. *Chen, X, Liu, X, Jia, H, Jin, J, Kong, W, Huang, Y. (2021) Inverse hydrogen isotope fractionation indicates heterotrophic microbial production of long-chain n-alkyl lipids in desolate Antarctic ponds. Geobiology. 19: 394– 404. https://doi.org/10.1111/gbi.12441
29. *McGrath, S. M., Clemens, S. C., Huang, Y., & Yamamoto, M. (2021). Greenhouse gas and ice volume drive Pleistocene Indian Summer Monsoon precipitation isotope variability. Geophysical Research Letters, 48, e2020GL092249. https://doi.org/10.1029/2020GL092249
30. *Richter, N., Russell, J.M., Garfinkel, J., Yongsong Huang (2021) Impacts of Norse settlement on terrestrial and aquatic ecosystems in Southwest Iceland. J Paleolimnol 65, 255–269 (2021). https://doi.org/10.1007/s10933-020-00169-3
31. *Wang, K.J., Huang, Y., Majaneva, M. et al. (2021) Group 2i Isochrysidales produce characteristic alkenones reflecting sea ice distribution. Nat Commun 12, 15 (2021). https://doi.org/10.1038/s41467-020-20187-z.
32. #Yao, Y., Lan, J., Zhao, J., Vachula, R. S., Xu, H., Cai, Y., Chen H., Huang, Y. (2020). Abrupt freshening since the early Little Ice Age in Lake Sayram of arid central Asia inferred from an alkenone isomer proxy. *Geophysical Research Letters*, 47, e2020GL089257. https://doi.org/10.1029/2020GL089257
33. Dunlea, A. G., Giosan, L., and Huang, Y. (2020) Pliocene expansion of C4 vegetation in the Core Monsoon Zone on the Indian Peninsula, Clim. Past, 16, 2533–2546, https://doi.org/10.5194/cp-16-2533-2020.

34. #Zhao J, **Huang Y**, Yao Y, An Z, Zhu Z, Lu H, Wang Z (2020) Calibrating branched GDGTs in bones to temperature and precipitation: Application to Alaska chronological sequences. Quaternary Science Reviews 240, https://doi.org/10.1016/j.quascirev.2020.106371
35. *Liao S, Yao Y, Wang L, Wang KJ, Amaral-Zettler, Longo WM, **Huang Y** (2020) C_{41} methyl and C_{42} ethyl alkenones are biomarkers for Group II isochrysidales. Organic Geochemistry, https://doi.org/10.1016/j.orggeochem.2020.104081.
36. *Longo WM, **Huang Y**, Russell JM, Morrill C, Daniels WC, Giblin AE, Crowther J (2020) Insolation and greenhouse gases triggered Holocene cold season warming in Arctic Alaska. Quaternary Science Reviews 242, https://doi.org/10.1016/j.quascirev.2020.106438.
37. #Yao Y, Zhao J, Vachula RS, Werne JP, Wu J, Song X, **Huang Y** (2020) Correlation between the ratio of 5-methyl hexamethylated to pentamethylated branched GDGTs (HP5) and water depth reflects redox variations in stratified lakes, Organic Geochemistry 147, https://doi.org/10.1016/j.orggeochem.2020.104076
38. #Zhao J, **Huang Y**, Yao Y, An Z., Zhu Y., Lu H, Wang Z (2020) Calibrating branched GDGTs in bones to temperature and precipitation: application to Alaska chronological sequences. Quaternary Science Reviews 240, https://doi.org/10.1016/j.quascirev.2020.106371
39. *Vachula, RS, **Huang Y**, Russell JM, Abbott MB, Finkenbinder MS, O'Donnell JA (2020) Sedimentary biomarkers reaffirm human impacts on northern Beringan ecosystems during the last glacial period. Boreas, **https://doi.org/10.1111/bor.12449**
40. Xia, Z., Zheng, Y., Stelling, JM, Loisel J., **Huang, Y**., Yu, Z. (2020) Environmental controls on the carbon and water (H and O) isotopes in peatland sphagnum mosses. Geochim. et Cosmochim. Acta 277, 265-284. https://doi.org/10.1016/j.gca.2020.03.034
41. Michel Rubens dos Reis Souza, Ewerton Santos, Jaiane Santos Suzarte, Laiane Oliveira do Carmo, Laiane Santos Soares, Lukas Gomes Gadelha Vieira Santos, Antônio Rodrigues Vilela Júnior, Laiza Canielas Krause, Morgana Frena, Flaviana Cardoso Damasceno, Yongsong Huang, Marcelo da Rosa Alexandre, (2020) The impact of anthropogenic activity at the tropical Sergipe-Poxim estuarine system, Northeast Brazil: Fecal indicators, Marine Pollution Bulletin 154, https://doi.org/10.1016/j.marpolbul.2020.111067.
42. Neupane, PC, Gani, MR, Gani, ND, Huang, Y. (2020) Neogene vegetation shift in the Nepalese Siwalik, Himalayas: A compound-specific isotopic study of lipid biomarkers. Depositional Rec., 6: 192– 202. https://doi.org/10.1002/dep2.91
43. *Pereboom, EMB, Vachula, RS, **Huang Y.,** Russell, J. (2020) The morphology of experimentally produced charcoal distinguishes fuel types in the Arctic tundra. The Holocene, https://doi.org/10.1177/0959683620908629
44. Functionalized chromatographic materials and methods of making and using therefor: Y Huang, JC Aponte, R Tarozo, J Dillon, US Patent 10,843,165 (2020)
45. #Yuan Yao, Jiaju Zhao, William M Longo, Gaoyuan Li, Xian Wang, Richard S Vachula, Karen J Wang, **Yongsong Huang** (2019) New insights into environmental controls on the occurrence and abundance of Group I alkenones and their paleoclimate applications: Evidence from volcanic lakes of northeastern China. Earth and Planetary Science Letters 527, https://doi.org/10.1016/j.epsl.2019.115792.
46. *Chen X, Liu X., Wei Y, **Huang Y.** (2019) Production of long-chain n-alkyl lipids by heterotrophic microbes: New evidence from Antarctic lakes. Organic Geochemistry 138, 1-14. https://doi.org/10.1016/j.orggeochem.2019.103909.

47. *Vachula RS, Russell JM, **Huang Y** (2019) Climate exceeded human management as the dominant control of fire at the regional scale in California's Sierra Nevada. Environmental Research Letters 14 (10), https://doi.org/10/1088/1748-9326/ab4669.
48. *Wang KJ, O'Donnell JA, Longo WM, Amaral-Zettler L, Li G., **Huang Y** (2019) Group I alkenones and Isochrysidales in the world's largest maar lakes and their potential paleoclimate applications. Organic Geochemistry 138, https://doi.org/10.1016/j.orggeochem.2019.103924.
49. #Wang, L, Longo WM, Dillon JT, Zhao J, Zheng Y, Moros M, **Huang Y.** (2019) An efficient approach to eliminate steryl ethers and micellaneous esters/ketones for gas chromatographic analysis of alkenones and alkenoates. J. Chromatography A, 1596, 175-182.
50. *Theroux S., **Yongsong Huang**, Jaime L Toney, Robert Andersen, Paul Nyren, Rick Bohn, Jeffrey Salacup, Leslie Murphy, Linda Amaral-Zettler (2019) Successional blooms of alkenone-producing haptophytes in Lake George, North Dakota: Implications for continental paleoclimate reconstructions. Limnology and Oceanography **https://doi.org/10.1002/lno.11311**.
51. #Yao, Yuan and Zhao, Jiaju and Bauersachs, Thorsten and Huang, **Yongsong Huang** (2019) Effect of water depth on the TEX86 proxy in volcanic lakes of northeastern China. Org. Geochem. 10.1016/j.orggeochem.2019.01.014
52. *Richter N., Longo W.M., George S., Shipunova A., **Huang Y**., Amaral-Zettler L. (2019) Phylogenetic diversity in freshwater-dwelling isochrysidales haptophytes with implications for alkenone production. Geobiology, DOI: 10.1111/gbi.12330
53. *Vachula, Richard S. and **Huang, Yongsong** and Longo, William M. and Dee, Sylvia G. and Daniels, William C. and Russell, James M. (2019) Evidence of Ice Age humans in eastern Beringia suggests early migration to North America. Quaternary Science Reviews, 205, 35-44.
54. Kaiser, Jérôme and Wang, Karen J. and Rott, Derek and Li, Gaoyuan and Zheng, Yinsui and Amaral-Zettler, Linda and Arz, Helge W. and **Huang, Yongsong** (2019) Changes in long chain alkenone distributions and Isochrysidales groups along the Baltic Sea salinity gradient. Org. Geochem. 127, 92-103.
55. *Zheng, Yinsui and Heng, Patrick and Conte, Maureen H. and Vachula, Richard S. and **Huang, Yongsong** (2019) Systematic chemotaxonomic profiling and novel paleotemperature indices based on alkenones and alkenoates: potential for disentangling mixed species input. Org. Geochem. https://doi.org/10.1016/j.orggeochem.2018.12.008
56. *Zhao J., Thomas EK, Yao Y., DeAraujo J., **Huang Y.** (2018) Major increase in winter and spring precipitation during the Little Ice Age in the westerly dominated northern Qinghai-Tibtan Plateau. Quaternary Science Reviews 199, 30-40.
57. *Richard S Vachula, James M Russell, **Yongsong Huang**, Nora Richter (2018) Assessing the spatial fidelity of sedimentary charcoal size fractions as fire history proxies with a high-resolution sediment record and historical data. Palaeogeography, Palaeoclimatology, Palaeoecology 508, 166-175.
58. *Richard S Vachula, Ewerton Santos, Marcelo R Alexandre, **Yongsong Huang** (2018) Comparison of black carbon chemical oxidation and macroscopic charcoal counts for quantification of fire by-products in sediments. Organic Geochemistry 125, 50-54.
59. *William C Daniels, **Yongsong Huang**, James M Russell, Anne E Giblin (2018) Effect of continuous light on leaf wax isotope ratios in Betula nana and Eriophorum vaginatum: Implications for Arctic paleoclimate reconstructions. Organic Geochemistry 125, 70-81.

60. *James T. Dillon, Sam Lash, Jiaju Zhao, Kevin P. Smith, Peter van Dommelen, Andrew K. Scherer, **Yongsong Huang** (2018) Bacterial tetraether lipids in ancient bones record past climate conditions at the time of disposal. J. Archaeological Science 96, 45-56.
61. *William M Longo, **Yongsong Huang**, Yuan Yao, Jiaju Zhao, Anne E Giblin, Xian Wang, Roland Zech, Torsten Haberzettl, Ludwig Jardillier, Jaime Toney, Zhonghui Liu, Sergey Krivonogov, Marina Kolpakova, Guoqiang Chu, William J D'Andrea, Naomi Harada, Kana Nagashima, Miyako Sato, Hitoshi Yonenobu, Kazuyoshi Yamada, Katsuya Gotanda, Yoshitsugu Shinozuka (2018) Widespread occurrence of distinct alkenones from Group I haptophytes in freshwater lakes: Implications for paleotemperature and paleoenvironmental reconstructions. Earth and Planetary Science Letters 492, 239-250.
62. *Li G., Torozo R., Longo W.M., Wang K.J., **Huang Y**. (2018) Microbial production of long-chain n-alkanes: implications for interpreting sedimentary leaf wax signals. Organic Geochemistry 115, 24-31.
63. *Zhao J., An C-B., **Huang Y**., Morrill C., Chen F.-H. (2017) Contrasting early Holocene temperature variations between monsoonal East Asia and westerly dominated Central Asia. Quaternary Science Reviews 178, 14-23.
64. *Daniels W.C., Russell J.M., Giblin A.E., Welker J.M., Klein E.S., **Huang Y.** (2017) Hydrogen isotope fractionation in leaf waxes in the Alaskan Arctic tundra. Geochimica et Cosmochimica Acta 213, 216-236.
65. *Gao L., **Huang Y.,** Shuman B., Oswald W.W., Foser D. (2017) A high-resolution hydrogen isotope record of behenic acid for the past 16 kyr in the northeastern United States. Quaternary International 449, 1-11.
66. *Richter N., Dillon J.T., Rott D.M., Lomazzo M.A., Seto C.T., **Huang Y.** (2017) Optimizing the yield of transient mono-dimethyl disulfide adducts for elucidating double bond positions of long chain alkenones. Organic Geochemistry https://doi.org/10.1016/j.orggeochem.2017.02.003
67. *Zheng, Y., Tarozo, R., **Huang, Y**., 2017. Optimizing chromatographic resolution for simultaneous quantification of long chain alkenones, alkenoates and their double bond positional isomers. Org. Geochem. 111, 136–143.
68. Hepp J., Zech R., Rozanski K., Tuthorn M., Glaser B., Greule M., Keppler F., **Huang Y**., Zech W., Zach M. (2017) Late Quaternary relative humidity changes from Mt. Kilimanjaro, based on a coupled 2H – 18O biomarker paleohygrometer approach. Quaternary International, http://dx.doi.org/10.1016/j.quaint.2017.03.059
69. *Thomas E.K., Clemens S.C., Sun Y., **Huang, Y**., Prell W., Chen G., Liu Z., Loomis S. (2017) Midlatitude land surface temperature impacts the timing and structure of glacial maxima. *Geophysical Research Letters* 44, 984-992.
70. *Thomas EK, Clemens SC, Sun Y, Prell WL, **Huang Y**, Gao L, Loomis S, Chen G and Liu Z (2016) Heterodynes dominate precipitation isotopes in the East Asian monsoon region, reflecting interaction of multiple climate factors. Earth and Planetary Science Letters 455, 196-206.
71. *Zheng Y., Dillon J. T., Zhang Y., **Huang Y.** (2016) Discovery of alkenones with variable methylene-interrupted double bonds: implications for the biosynthetic pathway. Journal of Phycology, **DOI:** 10.1111/jpy.12461.
72. *Hou J., **Huang Y**., Zhao J., Liu Z., Colman S., An Z. (2016) Large Holocene summer temperature oscillations and impact on the peopling of the northeastern Tibetan Plateau. *Geophysical Research Letters*, DOI: 10.1002/2015GL067317.

73. *Longo W.M., Theroux S., Giblin A.E. , Zheng Y., Dillon J.T., **Huang Y.** (2016) Temperature calibration and phylogenetically distinct distributions for freshwater alkenones: Evidence from northern Alaskan lakes. Geochim. Cosmochim. Acta 180, 177-196.
74. *Zheng Y., **Huang Y**., Andersen R.A., Amaral-Zettler L.A. (2016) Excluding the di-unsaturated alkenone in the UK37 index strengthens temperature correlation for the common lacustrine and brackish-water haptophytes. *Geochimica et Cosmochimica Acta*, 175, 36-46. http://dx.doi.org/10.1016/j.gca.2015.11.024.
75. *Elizabeth K Thomas, Jason P Briner, John J Ryan-Henry, **Yongsong Huang** (2016) A major increase in winter snowfall during the middle Holocene on western Greenland caused by reduced sea ice in Baffin Bay and the Labrador Sea. Geophysical Research Letters **DOI:** 10.1002/2016GL068513.
76. *Thomas E.K., **Huang Y**., Clemens S.C., Colman S.M., Morrill C., Wegenew P., Zhao J. (2016) Changes in dominant moisture sources and the consequences for hydroclimate on the northeastern Tibetan Plateau during the past 32 kyr. *Quaternary Science Reviews* 131, 157-167. Doi: 10.1016/j.quascirev.2015.11.003.
77. *Dillon J.T., Longo W.M., Zhang Y., Torozo R. **Huang Y.** (2016) Identification of novel alkenone doublebond positional isomers in a lacustrine haptophyte. Rapid Commun. Mass Spectrom. 29, 1-7. Doi: 10.1002/rcm/7414.
78. **Huang Y.,** Aponte JC, Zhao J., Tarozo R., Hallmann C. (2015) Hydrogen and carbon isotopic ratios of polycyclic aromatic compounds in two CM2 carbonaceous chondrites and implications for prebiotic organic synthesis. Earth and Planetary Science Letters 426, 101-108.
79. Wang P. Li L., Li Q., Li, J., Wang H., Dong L., **Huang Y.** (2015) A hydroclimate regime shift around 270 ka in the western tropical Pacific inferred from a late Quaternary n-alkane chain-length record. Palaeogeography, Palaeoclimatology, Palaeoecology 427, 79-88.
80. *Dillon J.T., **Huang, Y.** (2014) TEXPRESS v1.0: A MATLAB toolbox for efficient processing of GDGT LC-MS data. Organic Geochemistry, doi:10.1016/j.orggeochem.2014.11.009.
81. *Gao L., Edwards E.J., Zeng Y., **Huang Y.** (2014) Major evolutionary trends in hydrogen isotope fractionation of vascular plant leaf waxes. PLOS one, DOI: 10.1371/journal.pone.0112610.
82. *Gao L., Guimond J., Thomas, E., **Huang Y.** (2014) Major trends in leaf wax abundance, δ^2H and $\delta^{13}C$ along leaf venation in five species of C3 plants: physiological and geochemical implications. Organic Geochemistry doi:10.1016/j.orggeochem.2014.11.005.
83. *Zhao J., An C., Longo W.M., Dillon JT, Zhao Y., Shi C., Chen Y., **Huang Y.** (2014) Occurrence of extended chain length C_{41} and C_{42} alkenones in hypersaline lakes. Organic Geochemistry 75, 48-63.
84. *Thomas EK, Clemens SC, Prell WL, Herbert TD, **Huang Y.,** Liu Z., Sinninghe Damsté JS, Sun Y., Wen X. (2014) Temperature and leaf wax d2H records demonstrate seasonal and regional controls on Asian monsoon proxies. Geology, doi:10.1130/G36289.1.
85. Liu X., Colman SM, Brown ET, An Z., Zhou W., Jull AJT, **Huang Y**., Cheng P., Liu W., Xu H. (2014) A climate threshold at the eastern edge of the Tibetan Plateau. Geophysical Research Letters, DOI: 10.1002/2014GL060833.

86. Cisneros-Dozal L M., **Huang Y**., Heikoop J., Fawcett P., Fessenden J., Anderson S., Meyers P., Larson T., Perkins G., Toney J., Werne J., Goff. F., WoldeGabriel G., Allen C., Berke M. (2014) Assessing the strength of the monsoon during the late Pleistocene in southwestern United States. *Quaternary Science Reviews* 103, 81-90.

87. #Aponte JC, Tarozo R., Alexandre MR, Alexander C, O'D, Hallmann C, Summons ER, **Huang Y.** (2014) Chirality of meteoritic free and IOM-derived monocarboxylic acids and implications for prebiotic organic synthesis. *Geochimica et Cosmochimica Acta*, 131, 1-12.

88. *Thomas E., **Huang Y**., Morrill C., Zhao J., Wegener P., Clemens S., Colman S. and Gao L. (2014) Abundant C4 plants on the Tibetan Plateau during the late glacial and early Holocene. *Quternary Science Reviews*, 87, 24-33.

89. Russell, JM, Vogel H., Konecky BL, Bijaksana S., **Huang Y**., Melles M., Wattrus N., Costa K., King J. (2014) Glacial forcing of central Indonesian hydroclimate since 60,000 years BP. Proceedings of the National Academy of Sciences of the United States, doi: 10.1073/pnas. 1402373111.

90. *Gao L., Zheng M., Fraser M., **Huang Y.** (2013) Comparable hydrogen isotopic fractionation of plant leaf wax n-alkanoic acids in arid and humid subtropical ecosystems. *Geochemistry, Geophysics, Geosystems*, DOI: 10.1002/2013GC005015.

91. Konecky B. Russell J., **Huang Y.,** Vuille M., Cohen L., Street-Perrott F.A. (2013) Impact of monsoons, temperature, and CO_2 on the rainfall and ecosystems of Mt. Kenya during the Common Era. *Palaeogeography, Palaeoclimatology, Palaeoecology*, doi: 10.1016/j.palaeo.2013.12.037.

92. Schouten, S., E. C. Hopmans, A. Rosell-Melé, A. Pearson, P. Adam, T. Bauersachs, E. Bard, S. M. Bernasconi, T. S. Bianchi, J. J. Brocks, L. T. Carlson, I. S. Castañeda, S. Derenne, A. D. Selver, K. Dutta, T. Eglinton, C. Fosse, V. Galy, K. Grice, K.-U. Hinrichs, **Y. Huang**, A. Huguet, C. Huguet, S. Hurley, A. Ingalls, G. Jia, B. Keely, C. Knappy, M. Kondo, S. Krishnan, S. Lincoln, J. Lipp, K. Mangelsdorf, A. Martínez-García, G. Ménot, A. Mets, G. Mollenhauer, N. Ohkouchi, J. Ossebaar, M. Pagani, R. D. Pancost, E. J. Pearson, F. Peterse, G.-J. Reichart, P. Schaeffer, G. Schmitt, L. Schwark, S. R. Shah, R. W. Smith, R. H. Smittenberg, R. E. Summons, Y. Takano, H. M. Talbot, K. W. R. Taylor, R. Tarozo, M. Uchida, B. E. van Dongen, B. A. S. Van Mooy, J. Wang, C. Warren, J. W. H. Weijers, J. P. Werne, M. Woltering, S. Xie, M. Yamamoto, H. Yang, C. L. Zhang, Y. Zhang, M. Zhao, and J. S. S. Damsté. (2013) An interlaboratory study of TEX86 and BIT analysis of sediments, extracts and standard mixtures. Geochemistry, Geophysics, Geosystems: DOI: 10.1002/2013GC004904.

93. *Longo WM, Dillon JT, Tarozo R., Salacup JM, **Huang Y**. (2013) Unpresedented separation of long chain alkenones by gas chromatography with a poly(trifluoropropylmethylpolysiloxan) stationay phase. *Organic Geochemistry* 65, 94-102.

94. *Dillon J.T., Aponte J.C., Tarozo R. and **Huang Y.** (2013) Purification of omega-3 polyunsaturated fatty acids from fish oil using silver-thiolate chromatographic material and high performance liquid chromatography. *Journal of Chromatography A*, http://dx.doi.org/10.1016/j.chroma.2013.08.064.

95. #Zech R., Zech M., Markovic S., Hambach U. and **Huang Y.** (2013) Humid glacials, arid interglacials? Critical thoughts on pedogenesis and paleoclimate based on multi-proxy analyses of the loess–paleosol sequence Crvenka, Northern Serbia. *Palaeogeography, Palaeoclimatology, Palaeoecology* 387, 165–175.

96. *Theroux S., Toney J., Amaral-Zettler L.A., **Huang Y.** (2013) Production and temperature sensitivity of long chain alkenones in culture of *Pseudoisochrysis paradoxa,* nomen nudum. Organic Geochemistry 62, 68-73, DOI: 10.1016/j.orggeochem.2013.07.006.

97. #Aponte JC, Dillon, JT, **Huang Y**. (2013) The unique liquid chromatographic properties of Group 11 transition metals. *Journal of Separation Science*, doi: 10.1002/jssc.201300457.

98. Terwilliger V.J., Eshetu Z., Disner J-R., Jacob J., Adderley W.P., **Huang Y**., Alexandre M., Fogel M. (2013) Environmental changes and the rise and fall of civilizations in the northern Horn of Africa: An approach combining D analyses of land-plant derived fatty acids with multiple proxies in soil. *Geochem. Cosmochim Acta* 111, 140-161.

99. Charman D.J., D. W. Beilman, M. Blaauw, R. K. Booth, S. Brewer, F. M. Chambers, J. A. Christen, A. Gallego-Sala, S. P. Harrison, P. D. M. Hughes, S. T. Jackson, A. Korhola, D. Mauquoy, F. J. G. Mitchell, I. C. Prentice, M. van der Linden, F. De Vleeschouwer, Z. C. Yu, J. Alm, I. E. Bauer, Y. M. C. Corish, M. Garneau, V. Hohl, **Y. Huang**, E. Karofeld, G. Le Roux, J. Loisel, R. Moschen, J. E. Nichols, T. M. Nieminen, G. M. MacDonald, N. R. Phadtare, N. Rausch, U. Sillasoo, G. T. Swindles, E.-S. Tuittila, L. Ukonmaanaho, M. Valiranta, S. van Bellen, B. van Geel, D. H. Vitt, and Y. Zhao (2013) Climate-related changes in peatland carbon accumulation during the last millennium. *Biogeosciences* 10, 1-16. Doi:10.5194/bg-10-1-2013.

100. Nelson D.M., Henderson A.K., **Huang Y**., Hu F (2013) Influence of terrestrial vegetation on leaf wax D of Holocene lake sediments. *Organic Geochemistry* 56, 106-110. http://dx.doi.org/10.1016/j.orggeochem.2012.12.010.

101. *Gao L. and **Huang Y.** (2012) Inverse gradients in leaf wax D and ^{13}C values along the grass blades of Micanthus sinensis: implications for leaf wax reproduction and plant physiology. *Oecologia,* DOI: 10.1007/s00442-012-2506-6.

102. *Gao L, Tsai Y-J, **Huang Y.** (2012) Assessing the rate and timing of leaf wax regeneration in *Fraxinus Americana* using stable hydrogen isotope labeling. *Rapid Communications in Mass Spectrometry* 2012, 26, 2241-2250, DOI: 10.1002/rcm.6348.

103. *Theroux S., **Huang Y**., Amaral-Zettler L. (2012) Comparative molecular microbial ecology of the spring haptophyte bloom in a Greenland arctic oligosaline lake. *Front. Microbio.* **3**: 415, doi: 10.3389/fmicb.2012.00415.

104. Konecky B.L., Russell J.M., Rodysill J.R., Vuille M., Bijaksana S., **Huang Y.** (2013) Intensification of southwestern Indonesian rainfall over the past millennium. *Geophysical Research Letters*, doi:10.1029/2012GL054331.

105. #Zech R., Gao L., Tarozo R. and **Huang Y**. (2012) Branched glycerol dialkyl glycerol tetraethers in Pleistocene loess-paleosol sequences: three case studies. *Organic Geochemistry*, http://dx.doi.org/10.1016/j.orggeochem.2012.09.005.

106. An Z., Colman S.M., Zhou W., Li X., Brown E.T., Jull A.J. T., Cai Y., **Huang Y.,** Lu X., Chang H., Song Y., Sun Y., Xu H., Liu W., Jin Z., Liu X., Cheng P., Liu Y., Ai L., Li X., Liu X., Yan :., Shi Z., Wang X., Wu F., Qiang X., Dong J., Lu F. and Xu X. (2012) Interplay between the Westerlies and Asian monsoon recorded in Lake Qinghai sediments since 32 Ka. *Nature Scientific Reports* 2: 619, DOI: 10.1038/srep00619.

107. Tierney J.E., Oppo D.W., LeGrande A.N., **Huang Y**., Rosenthal Y. and Linsley B.K. (2012) The influence of Indian Ocean atmospheric circulation on warm pool hydroclimate during the Holocene Epoch. *J. Geophysical Research – Atmosphere*, 117, D19108, doi:10.1029/2012JD018060.

108. Von Gunten L., D'Andrea W. J., Bradley R.S., **Huang Y.** (2012) Proxy-to-proxy calibration: increasing the temporal resolution of quantitative climate reconstructions. *Nature Scientific Reports,* DOI: 10.1038/srep00609.

109. *Dillon JT, Aponte JC, Tsai Y-J, **Huang Y.** (2012) Thin Layer Chromatography in the Separation of Unsaturated Organic Compounds Using Silver-Thiolate Chromatographic Material. *Journal of Chromatography A*, 10.1016/j.chroma.2012.06.042.

110. *Dillon JT, Aponte JC, Tarozo R, **Huang Y.** (2012) Efficient liquid chromatographic analysis of mono-, di-, and triglycerols using silver thiolate stationary phase. *Journal of Chromatography A*, http://dx.doi.org/10.1016/j.chroma.2012.03.083.

111. #Aponte JC, Dillon JT, Tarozo R, **Huang Y.** (2012) Separation of unsaturated organic compounds using silver–thiolate chromatographic material. *Journal of Chromatography A*, http://dx.doi.org/10.1016/j.chroma.2012.03.082.

112. *Thomas EK, McGrane S, Briner JP, **Huang Y.** (2012) Leaf wax δD and varve-thickness climate proxies from proglacial lake sediments, Baffin Island, Arctic Canada. J. Paleolimnology, 193-207, DOI: 10.1007/s10933-012-9584-7.

113. *Nichols J. and **Huang Y.** (2012) Hydroclimate of the northeastern United States is highly sensitive to solar forcing. *Geophysical Research Letters,* doi:10.1029/2011GL050720.

114. *Denis EH, Toney JL, Tarozo, R, Anderson RS, Roach LD, **Huang Y.** (2012) Polycyclic aromatic hydrocarbons (PAHs) in lake sediments record historic fire events: Validation using HPLC-fluorescence detection. *Organic Geochemistry* 45, 7-17. (undergrad first author).

115. *Gao, L. , J. Nie , S. Clemens, W. Liu , J. Sun , R. Zech, and **Y. Huang** (2012) The importance of solar insolation on the temperature variations on Chinese Loess Plateau for the past 110 kyrs. *Palaeogeography, Palaeoclimatology, Palaeoecology*, doi.org/10.1016/j.palaeo.2011.12.021.

116. * Gao L., Burnier A., **Huang Y**. (2012) Quantifying instantaneous regeneration rate of plant leaf waxes using stable hydrogen isotope labeling. *Rapid Communications in Mass Spectrometry* 26, 115-122. DOI: 10.1002/rcm.5313.

117. * Toney JL, Theroux S, Andersen RA, Coleman A, Amaral-Zettler L, **Huang Y.** (2011) Culturing of the first 37:4 predominant lacustrine haptophyte: geochemical, biochemical, and genetic implications, *Geochem. Cosmochim Acta* **78**, 51-64, doi:10.1016/j.gca.2011.11.024.

118. * Hou J., **Huang Y**., Shuman B.N., Oswald, W.W., Foster D.R. (2011) Abrupt Cooling Repeatedly Punctuated Early Holocene Climate in Eastern North America. *Holocene*, doi: 10.1177/0959683611427329.

119. Konecky B, Russell JM, Johnson TC, Brown ET, Berke M, Werne JP, **Huang Y.** (2011) Northward displacement of the southern Hadley circulation during the Pleistocene African Mega-drought. *Earth and Planetary Science Letters* 312, 318-326. Doi: 10.1016/j.epsl.2011.10.020.

120. * D'Andrea W. J., **Y. Huang**, S. C. Fritz, N. J. Anderson (2011) Abrupt Holocene climate change as an important factor for human migration in West Greenland, *Proceedings of National Academy of Sciences*, doi/10.1073/pnas.1101708108.

121. * Toney J.L., Leavitt P.R., **Huang Y.** (2011) Alkenones are common in prairie lakes of Canada. *Organic Geochemistry*, doi:10.1016/j.orggeochem.2011.06.014.

122. Herd CDK, Blinova A, Simkus DN, **Huang Y**, Tarozo R, Alexander CMO'D., Gyngard F, Nittler LR, Cody GD, Fogel M, Kebukawa Y, Kilcoyne ALD, Hilts RW, Slater GF, Glavin DP, Dworkin JP, Callahan MP, Elsila JE, De Gregorio BT, Stroud RM (2011) Origin and Evolution of Prebiotic Organic Matter as Inferred from the Tagish Lake Meteorite. *Science* 332, 1304, DOI: 10.1126/science.1203290.

123. #Zech R., **Huang Y.,** Zech M., Tarozo R. and Zech W. (2011) High carbon sequestration in Siberian permafrost loess-paleosols during glacial. *Climate of the Past* 7. 501-509. doi:10.5194/cp-7-501-2011.

124. *Gao L., J. Hou, J. Toney, D. Mcdonold, **Y. Huang** (2011) Mathematical modeling of the aquatic macrophyte inputs of mid-chain *n*-alkyl lipids to lake sediments: Implications for interpreting compound specific hydrogen isotopic records. *Geochimica et Cosmochimica Acta*, doi:10.1016/j.gca.2011.04.008.

125. Tierney J.E., Russell J.M., Sinninghe Damsté, **Y. Huang**, D. Verschuren (2011) Late quaternary behavior of the East African monsoon and the importance of the Congo Air Boundary. *Quaternary Science Reviews* **30**, 798-807.

126. #Aponte J. C., M. R. Alexandre, Y. Wang, A. J. Brearley, C. M. O'D. Alexander and **Y. Huang** (2011) Effects of secondary alteration on the composition of free and IOM-derived monocarboxylic acids in carbonaceous chondrites. *Geochimica et Cosmochimica Acta* 75, 2309-2323, doi:10.1016/j.gca.2011.01.040.

127. Fawcett P.J., J. P. Werne, R. S. Anderson, J. M. Heikoop, E. T. Brown, M. A. Berke, S. Smith, F. Goff, L. Hurley, L. M. Cisneros-Dozal5, S. Schouten, J. S. S.Damsté, **Y. Huang**, J. Toney, J. Fessenden, G. W. Gabriel, V. Atudorei, J. W. Geissman, C. D. Allen (2011) Extended megadroughts in the southwestern United States during Pleistocene interglacials. *Nature* 470, 518-521, doi:10.1038/nature09839.

128. * Theroux S., D'Andrea W., Toney J., Amaral-Zettler L., **Huang Y.** (2010) Phylogenetic diversity and evolutionary relatedness of alkenone producing haptophyte algae in lakes: Implications for continental paleotemperature reconstructions. *Earth and Planatary Science Letters*, doi:10.1016/j.epsl.2010.10.009.

129. Henderson A. K.; D. M. Nelson, F. S. Hu, **Y. Huang**, B. N. Shuman and J. W. Williams (2010) Holocene precipitation seasonality captured by a dual hydrogen and oxygen isotope approach at Steel Lake, Minnesota. *Earth and Planatary Science Letters*, doi:10.1016/j.epsl.2010.09.024.

130. * Hou J., **Huang Y**., Brodsky C., Alexandre M.R., McNichol A.P., King J.W., Hu F.S. and Shen J. (2010) Radiocarbon dating of individual lignin phenols: a new approach for establishing chronology of late Quaternary lake sediments. *Analytical Chemistry*, 10.1021/ac100494m.

131. Terwilliger V.J., Eshetu Z., **Huang Y,** Alexandre M., , Umer M., Gebru T. (2010) Local variation in climate and land use during the time of the major kingdoms of the Tigray Plateau in Ethiopia and Eritrea. *Catena*, doi:10.1016/j.catena.2010.08.003.

132. Edwards E. J., C. P. Osborne, C. A.E. Strömberg, S. A. Smith and C4 Grasses Consortium (22 authors including **Y. Huang**) (2010) The Evolutionary Origins of C4 Grasslands. Science **328**, 587 – 591, DOI: 10.1126/science.1177216.

133. Tierney J. E., Russell J. M., **Huang Y.**, (2010) A molecular perspective on Late Quaternary climate and vegetation change in the Lake Tanganyika basin, East Africa. *Quaternary Science Reviews* doi:10.1016/j.quascirev.2009.11.030.

134. * Toney, J.L., **Huang, Y.,** Fritz, S.C., Baker, P.A., Grimm, E., Nyren, P., (2010) Climatic and environmental controls on the occurrence and distributions of long chain alkenones in lakes of the interior United States, Geochimica et Cosmochimica Acta, doi: 10.1016/j.gca.2009.11.021.

135. * Nichols J., Booth R.K., Jackson S.T., Pendall E.G. and **Huang Y.** (2010) Differential hydrogen isotopic ratios of *Sphagnum* and vascular plant biomarkers in ombrotrophic peatlands as a quantitative proxy for precipitation—evaporation balance. *Geochim. Cosmochim. Acta*, doi:10.1016/j.gca.2009.11.012.

136. * Nichols J.E., Walcott M., Bradley R., Pilcher J. and **Huang Y.** (2009) Quantitative assessment of precipitation seasonality and summer surface wetness using ombrotrophic sediments from an Arctic Norwegian peatland. *Quaternary Research*, doi:10.1016/j.yqres.2009.07.007.

137. Gebru T., Eshetu Z., **Huang Y.,** woldemariam T., Strong N., Umer M., DiBlasi M., terwilliger V.J. (2009) Holocene paleovegetation of the Tigray Plateau in northern Ethiopia from charcoal and stable organic carbon isotopic analyses of gully sediments. Palaeogeography, Palaeoclimatology, Palaeoecology, 282, 67-80.

138. Russell J.M., McCoy S.J., Verschuren D., Bessems I., **Huang Y**. (2009) Human impacts, climate change and aquatic ecosystem response during the past 2000 yr at Lake Wandakara, Uganda. Quaternary Research, doi:10.1016/j.yqres.2009.06.008

139. * Hou J., D'Andrea W. and **Huang Y.** (2008) Can Sedimentary Leaf Waxes record D/H ratios of Continental Precipitation? Field, Model and Experimental Assessments. *Geochim. Cosmochim. Acta* 72, 3503-3517.

140. Tierney J. E., Russell J. M., **Huang Y.**, J. S. Sinninghe Damsté, E. C. Hopmans, A. S. Cohen (2008) Northern Hemisphere controls on tropical Southeast African climate during the last 60,000 years. *Science* 322, 252-255, DOI: 10.1126/science.1160485.

141. # Liu W. and **Huang Y.** (2008) Reconstructing *in-situ* vegetation dynamics using carbon isotopic composition of plant-derived macromolecules in the central Chinese Loess Plateau. *Chemical Geology*, 249, 348-356.

142. # Liu Z. and **Huang Y.** (2008) Hydrogen isotope ratios of plant leaf lipids are unaffected by a twofold pCO_2 change in growth chambers. *Organic Geochemistry*, 39, 478-482, doi: 10.1016/j.orggeochem.2008.01.020.

143. # Liu Z., Henderson A., and **Huang Y**. (2008) Regional Moisture Source Changes Inferred from Late Holocene Stable Isotope Records. *Advances in Atmospheric Sciences* 25, 1-8.

144. Pizzarello S., **Huang Y**., Alexandre M.R. (2008) Molecular asymmetry in extraterrestrial chemistry: Novel insights from a pristine meteorite. *PNAS*, 105, 3700-3704, 10.1073/pnas.0709909105.

145. * Nichols J.E. and **Huang Y.** (2007) C_{23} to C_{31} *n*-alkan-2-ones are biomarkers for genus *Sphagnum* in Freshwater Peatlands. *Organic Geochemistry* 38, 1972-1976. doi:10.1016/j.orggeochem.2007.07.002.

146. * Hou J., **Huang Y.**, Oswald W.W., Foster D.R., Shuman B. (2007) Centennial-scale compound-specific hydrogen isotope record of Late Pleistocene - Holocene climate transition from southern New England. *Geophycial Research Letters*, 34, L19706, doi:10.1029/2007GL030303.

147. P. A. Barker, M. J. Leng, F. Gasse, **Y. Huang** (2007) Century-to-millennial scale climatic variability in Lake Malawi revealed by isotope records. *Earth and Planetary Science Letters* 261, 93-103.

148. Street-Perrott F.A., Baker P.A., Swain D.L., Ficken K.J., Wooler M.J., Olago D.O., **Huang Y.** (2007) Late Quaternary changes in carbon cycling on Mt. Kenya, East Africa: a landscape-ecological perspective based on multi-proxy lake-sediment influxes. *Quaternary Science Reviews* 26, 1838-1860.

149. * Hou J., D'Andrea W.J., MacDonald D., **Huang Y.** (2007) Evidence for water use efficiency as an important factor in determining the δD values of tree leaf waxes. *Organic Geochemistry* 38, 1251-1255.

150. **Huang Y**., Alexandre M.R. and Wang Y. (2007) Structure and isotopic ratios of aliphatic side chains in the insoluble organic matter of the Murchison carbonaceous chondrite. *Earth and Planatary Science Letters* 259, 517-525.

151. * Hou J., D'Andrea W., MacDonald D., **Huang Y.** (2007) Hydrogen isotopic variability in leaf waxes among terrestrial and aquatic plants around Blood Pond, Massachusetts. *Organic Geochemistry* 38, 977–984.

152. # Jacob J., **Huang Y.**, Disnar J.R., Sifeddine A., Boussafir M., Albuquerque A.L.S. and Turcq B. (2007) Abrupt paleohydrological change during the last deglaciation in Northern Brazil. *Quaternary Science Reviews*, 26, 1004-1015.

153. Levin E.M., Bud'ko S.L., Mao J.D., **Huang Y.** and Schmidt-Rohr K. (2007) Effect of magnetic particles on NMR spectra of Murchison meteorite organic matter and a polymer-based model system. *Solid State Nuclear Magnetic Resonance* **31**, 63-71, doi:10.1016/j.ssnmr.01.002.

154. **Huang Y.**, Clemens S.C., Liu W., Wang Y. and Prell W.L. (2007) Large scale hydrological change drove the late Miocene C_4 plant expansion in the Himalayan foreland and Arabian Peninsula. *Geology* **35**, 531-534; doi: 10.1130/G23666A.

155. * D'Andrea W., Liu Z., Alexandre M., Wattley S., Herbert T., **Huang Y.** (2007) An efficient method for isolating individual long-chain alkenones for compound-specific hydrogen isotope analysis. *Analytical Chemistry* **79**, 3430-3435, doi: 10.1021/ac062067w.

156. Lindbladh M., Oswald W.W., Foster D.R., Faison E.K., Hou J., **Huang Y.** (2007) A late-glacial transition from Picea glauca to Picea mariana in southern New England. *Quaternary Research* **67**, 502–508.

157. Hostettler F.D., Wang Y., **Huang Y.**, Cao W., Bekins B.A., Rostad C. E., Kulpa C.F., Laursen A. (2007) Forensic Fingerprinting of Oil-Spill Hydrocarbons in a Methanogenic Environment, Mandan, ND and Bemidji, MN. *Environmental Forensics* **8**, 139-153.

158. Shuman B., **Huang Y**., Newby P. and Wang Y. (2006) Compound-Specific Isotopic Analyses Track Changes in the Seasonality of Precipitation in the Northeastern United States at ca. 8200 cal yr BP. *Quaternary Science Reviews* **25**, 2992-3002.

159. Hu F., Nelson D.M., Clarke G.H., Rühland K.M., **Huang Y.**, Kaufman D.S., and Smol J.P. (2006) Abrupt climatic events during the last glacial-interglacial transition in Alaska. *Geophysical Research Letters* **33**, L18708, doi: 10.1029/2006GL027261.

160. * Nichols J.E., Booth R.K., Jackson S.T., Pendall E.G. and **Huang Y.** (2006) Paleohydrologic reconstruction based on *n*-alkane distributions in ombrotrophic peat, *Organic Geochemistry* **37**, 1505-1513.

161. Jackson S.T., Booth R.K., **Huang Y.**, Pendall E.G., Nichols J.E., Minckley T.A. and Taylor M. (2006) Late Holocene Hydrological variability in ombrotrophic peatlands of eastern North America. *PAGES* **14**, 26-28.

162. * D'Andrea W.J., Lage M., Hughes J.B., Laatsch A.D., Amaral-Zettler L.A., Sogin M.L. and **Huang Y.** (2006) Alkenone producers inferred from well-preserved 18S rDNA in Greenland lake sediments. *Journal of Geophysical Research, Biogeoscience* **111**, G03013, doi: 10.1029/2005JG000121.

163. Fang J., Chan O., Joeckel R.M., **Huang Y**., Wang Y., Bazylinski D.A., Moorman T.B. and Clement B. J.A. (2006) Biomarker analysis of microbial diversity in sediments of a saline groundwater seep of Salt Basin, Nebraska. *Organic Geochemistry* **37**, 912-931.

164. **Huang Y.**, Shuman B., Wang Y., Webb T., Grimm E.C., and Jacobson G.L. (2006) Climatic and environmental controls on the variation of C_3 and C_4 plant abundances in central Florida for the past 62,000 years. *Palaeogeography, Palaeoclimatology, Palaecology* **237**, 428-435.

165. * Hou J., **Huang Y.**, Wang Y., Shuman B., Oswald W., Faison E., Foster D. (2006) Postglacial climate reconstruction based on compound-specific D/H ratios of fatty acids from Blood Pond, New England. *Geochemistry, Geophysics, Geosystems* ***7***, Q03008, doi:10.1029/2005GC001076.

166. # Liu, Z., A. C. G. Henderson, and **Y. Huang** (2006), Alkenone-based reconstruction of late-Holocene surface temperature and salinity changes in Lake Qinghai, China, *Geophys. Res. Lett.*, 33, L09707, doi:10.1029/2006GL026151.

167. Lee X., Feng Z., Guo L., Wang L., Jin L., **Huang Y.**, Chopping M., Huang D., Jiang W., Jiang Q., Cheng H. (2005) Carbon isotope of bulk organic matter: A proxy for precipitation in the arid and semiarid central East Asia. *Global Biogeochemical Cycles* **19**, doi: 10.10292004GB002303.

168. An Z., **Huang Y**., Liu W., Guo Z., Clemens S., Li L., Prell W., Ning Y., Cai Y., Zhou W., Lin B., Zhang Q., Cao Y., Qiang X., Chang H. and Wu Z. (2005) Multiple expansions of C_4 plant biomass in East Asia since 7 Ma coupled with strengthened monsoon circulation. *Geology* **33**, 705-708.

169. * D'Andrea W.J. and **Huang Y**. (2005) Long-chain alkenones in Greenland lake sediments: Low ^{13}C values and exceptional abundance. *Organic Geochemistry* **36**, 1234-1241.

170. # Liu W., **Huang Y**., An Z., Clemens S.C., Li L., Prell W.L. and Ning Y. (2005) Summer monsoon intensity controls C_4/C_3 plant abundance during the last 35 ka in the Chinese Loess Plateau: carbon isotope evidence from bulk organic matter and individual leaf waxes. *Palaeogeography, Palaeoclimatology, Palaecology* **220**, 243-254.

171. # Liu W. and **Huang Y.** (2005) Compound-specific D/H ratios and molecular distributions of higher plant leaf waxes as novel paleoenvironmental indicators in the Chinese Loess Plateau. *Organic Geochemistry*, **36**, 851-860.

172. # Wang Y., **Huang Y**., Alexander C.M.O'D, Fogel M. and Cody G. (2005) Molecular and compound-specific hydrogen isotope analysis of insoluble organic matter from different carbonaceous chondrite groups. *Geochim. Cosmochim. Acta* **69**, 3711-3721.

173. **Huang Y**., Wang Y., Alexandre M.R., Lee T., Rose-Petruck C., Fuller M. and Pizzarello S. (2005) Molecular and compound specific isotopic characterization of monocarboxylic acids in carbonaceous meteorites. *Geochim. Cosmochim. Acta* **69**, 1073-1084.

174. Pizzarello S. and **Huang Y**. (2005) The deuterium content of individual Murchison and Murray amino acids: A case for the presolar distribution of biomolecular precursors. *Geochim. Cosmochim. Acta*, 69, 599-605.

175. Tang Y., **Huang Y**., Ellis G.S., Wang Y., Kralert P.G., Gillaizeau B., Ma Q. and Hwang R. (2005) A kinetic model for thermally-induced hydrogen and carbon isotopic fractionation of individual *n*-alkanes in crude oil. *Geochim. Cosmochim. Acta* 69. 4505–4520, 2005.

176. Yang, H., **Huang, Y**., Leng, Q., LePage, B.A., Williams, C.J. (2005) Biomolecular preservation of Tertiary Metasequoia fossil Lagerstatten revealed by comparative pyrolysis analysis. *Review of Palaeobotany and Palynology*, 134, 237-256.

177. Pizzarello S., **Huang Y.** and Fuller M. (2004) The carbon isotopic distribution of Murchison amino acids. *Geochim. Cosmochim. Acta* **68**, 4963-4969.

178. # Wang Y., **Huang Y**., Huckins J.N., Petty J.D. (2004) Compound-Specific Carbon and Hydrogen Isotope Analysis of Sub-ppb Level Waterborne Petroleum Hydrocarbons. *Environmental Science and Technology* **38**, 3689-3697.

179. Zhang C. L., Fouke B.W., Bonheyo B.T., Peacock A.D., White D.C., **Huang Y**. and Romanek C.S. (2004) Lipid biomarkers and carbon-isotopes of modern travertine deposits (Yellowstone National Park, USA): Implications for biogeochemical dynamics in hot-spring systems. *Geochim. Cosmochim. Acta* **68**, 3157-3169.

180. Shuman, B., P. Newby, **Y. Huang**, and T. Webb III. (2004) Evidence for the close climatic control of New England vegetation history. *Ecology* 85, 1297-1310.

181. Street-Perrott F.A., Ficken K.J., **Huang Y**. and Eglinton G. (2004) Late Quaternary changes in carbon cycling on Mt. Kenya, East Africa: an overview of the ^{13}C record in lacustrine organic matter. *Quaternary Science Reviews* **23**, 861-879.

182. **Huang Y**., Shuman B., Wang Y., and Webb III T. (2004) Hydrogen isotope ratios of individual lipids in lake sediments as novel tracers of climatic and environmental change: a surface sediment test. *Journal of Paleolimnology* **31**, 363-375.

183. Yang H. and **Huang Y**. (2003) Preservation of lipid hydrogen isotope ratios in Miocene lacustrine sediments and plant fossils at Clarkia, northern Idaho, USA. *Org. Geochem*. **34**, 413-423.

184. # Wang Y. and **Huang Y**. (2003) Hydrogen isotopic fractionation of petroleum hydrocarbons during vaporization: implications for assessing artificial and natural remediation of petroleum contamination. *Applied Geochemistry* **18**, 1641-1651.

185. Hu F., Kaufman D., Yoneji S., Nelson D., Shemesh A., **Huang Y**., Tian J., Bond G., Clegg B. and Brown T. (2003) Cyclic Variation and Solar Forcing of Holocene Climate in the Alaskan Subarctic. *Science* **301**, 1890-1892.

186. Xie S., Chen F., Wang Z., Wnag H., Gu Y. and **Huang Y**. (2003) Lipid distributions in loess-paleosol sequences from northwest China. *Organic Geochemistry* **34**, 1071-1079.

187. * Fuller M. and **Huang Y**. (2003) Quantifying hydrogen-deuterium exchange of meteoritic dicarboxylic acids during aqueous extraction. *Meteoritics and Planetary Science* **38**, 357-363.

188. **Huang Y**., Shuman B., Wang Y. and Webb III T. (2002) Hydrogen isotope ratios of palmitic acid in lacustrine sediments record late –Quaternary climate variations. *Geology* **30**, 1103-1106.

189. * Pond K.L., **Huang Y.,** Wang Y. and Kulpa C.F. (2002) Hydrogen isotopic compositions of individual *n*-alkanes as an intrinsic tracer for bioremediation and source identification of petroleum contamination. *Environmental Science and Technology* **36**, 724-728.

190. Zhang C., Li Y., Wall J.D., Larsen L., Sassen R., **Huang Y**., Wang Y., Peacock A., White D., Horita J. and Cole D.R. (2002) Lipid and carbon isotopic evidence of methane-oxidizing and sulfate-reducing bacteria in association with gas hydrates from the Gulf of Mexico. *Geology* **30**, 239-242.

191. Pizzarello S. and **Huang Y**. (2002) Molecular and isotopic analyses of Tagish Lake alkyl dicarboxylic acids. *Meteoritics and Planetary Science* **37**, 687-696.

192. Zhang, C. L., Q. Ye, D. Goetz, A.L. Reysenbach, A. Peacock, D. C. White, J. Horita, D. R. Cole, J. Fong, L. Pratt, J. Fang, **Y. Huang**. (2002) Carbon isotopic fractionations associated with thermophilic bacteria *Thermotoga maritima* and *Persephonella marina*. *Environ. Microbiol*. **4**, 58-64.

193. **Huang Y**., Street-Perrott F.A., Metcalfe S.E., Brenner M., Moreland M. and Freeman K.H. (2001) Climate change as the dominant control on glacial-interglacial variations in C_3 and C_4 plant abundance. *Science* **293**, 1647-1651.

194. Pizzarello S., **Huang Y.,** Becker L., Poreda R.J., Nieman R.A., Cooper G. and Williams M. (2001) The organic content of the Tagish Lake Meteorite. *Science* **293**, 2236-2239.

195. Li M., **Huang Y.**, Obermajer M., Jiang C., Snowdon L. and Fowler M.G. (2001) Hydrogen isotopic compositions of individual alkanes as a new approach for petroleum corrrelation: case studies from the Western Canada Sedimentary Basin. *Organic Geochemistry* **32**, 1387-1399.

196. # Wang Y. and **Huang Y.** (2001) Hydrogen isotope fractionation of low molecular weight *n*-alkanes during progressive vaporization. *Organic Geochemistry* **32**, 991-998.

197. **Huang Y.,** Dupont L., Sarnthein M., Hayes J.M. and Eglinton G. (2000) Mapping of C_4 plant input from North West Africa into the North East Atlantic sediments. *Geochim. Cosmochim. Acta* **64**, 3505-3513.

198. **Huang Y.,** Freeman, K.H., Wilkin R.T., Arthur M.A. and Jones A.D. (2000) Black Sea chemocline oscillations during the Holocene: molecular and isotopic studies of marginal sediments. *Org. Geochem*. **31**, 1525-1531.

199. Barker P.A., Perrott R.A., Street-Perrott, F.A., **Huang Y**. (2000) Evolution of the carbon cycle at Lake Kimilili, Mt Elgon, Kenya during the last 14,000 years. In: *Paleoecology of Africa and Surrounding Island, V. 27* (Eds, K. Heine & J. Runge), Balkema, Rotterdam, pp. 77 – 94 (Book Chapter).

200. Mandernack K.W., Kinney C., Coleman D., **Huang Y**., Freeman K., Bogner J. (2000) The biogeochemical controls of N_2O production and emission in landfill cover soils: the role of methanotrophs in the nitrogen cycle. *Env. Microbiolgy* **2**, 298-309.

201. **Huang Y**., Street-Perrott F.A., Perrott F.A., P. Metzger and Eglinton G. (1999) Glacial - interglacial environmental changes inferred from the molecular and compound - specific ^{13}C

analyses of sediments from Sacred Lake, Mt Kenya. *Geochim. Cosmochim. Acta* **63,** 1383-1404.

202. **Huang Y.,** Freeman K.H., Eglinton T.I., Street-Perrott F.A. (1999) ^{13}C analyses of individual lignin phenols in the lacustrine environment: a novel proxy for deciphering the past terrestrial vegetation changes. *Geology* **27**, 471-474.

203. **Huang Y.,** Li B., Bryant C., Bol R. and Eglinton G. (1999) Radiocarbon dating of aliphatic hydrocarbons: a new approach for dating the passive fraction carbon in soil horizons. *Soil Sci. Soc. Am. J.* **63**,1181-1187.

204. **Huang Y.,** Eglinton G., Ineson P., Bol R. and Harkness D.D. (1999) The effects of nitrogen fertilisation and elevated CO_2 on the lipid biosynthesis and carbon isotopic discrimination in birch seedlings (*Betula pendula*). *Plant and Soil* **216**, 35.

205. Holmes J., Street-Perrott F.A., Perrott R.A., Stokes S., Walker M.P., **Huang Y**., Eglinton G. and Ivanovich M. (1999) Holocene landscape evolution of the Manga Grasslands, north-wastern Nigeria: evidence from palaeolimnology and dune chronology. *Journal of the Geological Society of London* 156, 357-368.

206. Bol R., Harkness D.D., **Huang Y.** and Howard D.M. (1999) Influence of soil processes on carbon turnover and isotopic distribution in the British uplands. *European J. of Soil Science* **50**, 41-51.

207. **Huang Y.,** Stankiewicz A., Eglinton G., Snape C.E., Evans B., Latter P.M. and Ineson P. (1998) Monitoring biomacromolecular degradation in a 23 yr. decomposition experiment with *Calluna Vulgaris* by solid state ^{13}C NMR and py-GC/MS. *Soil Biology & Biochemistry* **30**, 1517-1528.

208. Street-Perrott F.A., **Huang Y**., Perrott A. and Eglinton G. (1998) Carbon isotopes in lake sediments and peats of the last glacial age: implications for the global carbon cycle. In: *Stable isotopes and integration of biological, ecological and geochemical process* (H. Griffiths ed.), Bios Scientific Publisher, Oxford, 381-396. (Book Chapter)

209. **Huang Y**., Eglinton G., Hage E., Boon J.J., Bol R., Harkness D.D., Ineson P. (1998) An integrated study of dissolved organic matter and its parent grass upland soil horizons by analytical pyrolysis techniques. *European J. of Soil Science* **49**, 1-15.

210. Street-Perrott F.A., **Huang Y**., Perrott A., Eglinton, G., Baker P., Khelifa L., Harkness D.D. and Olago D. (1997) The impact of lower atmospheric CO_2 on tropical mountain ecosystems. *Science* **278**, 1422-1426.

211. **Huang Y**., Peakman, T.M. and M. Murray (1997) 8 ,9 ,10 -rimuane, a novel, optically active, tricyclic hydrocarbon of algal origin. *Tetrahedron Letters* **38**, 5363-5366.

212. **Huang Y**., Eglinton G., Ineson P., Latter P.M., Bol R. and Douglas D.D. (1997) Absence of carbon isotope fractionation of individual *n*-alkanes in a 23 year field decomposition experiment with *Calluna Vulgaris*. *Organic Geochemistry* **26**, 497-501.

213. **Huang Y**., Murray M., Metzger P. and Eglinton G. (1996) Novel unsaturated triterpenoid hydrocarbons from sediments of Sacred Lake, Mt. Kenya, Kenya. *Tetrahedron* **52**. 6973-6982.

214. **Huang Y**., Bol R., Harkness D.D., Ineson P. and Eglinton G. (1996) Post-glacial variations in distributions, ^{13}C and ^{14}C contents of aliphatic hydrocarbons and bulk organic matter in three types of British acid upland soils. *Organic Geochemistry* **24,** 273-287.

215. R.Bol, **Huang Y**., Meredith J., Eglinton G., Harkness D.D. and Ineson P. (1996) ^{14}C age and residence time of organic matter and its lipid constituents in a stagnohumic gley soil. *European Journal of Soil Sciences* **47**, 215-222.

216. **Huang Y**., Lockheart M.J., Logan G. and Eglinton G. (1996) Isotope and molecular evidence for the diverse origins of carboxylic acids in leaf fossils and sediments from the Miocene Lake Clarkia Deposit, Idaho, USA. *Organic Geochemistry* **24**, 289-299.

217. **Huang Y**., Murray M., Metzger P. and Eglinton G. (1995) Sacredicene. a novel monocyclic C_{33} hydrocarbon from sediment of Sacred Lake, a tropical freshwater Lake, Mount Kenya. *Tetrahedron Letters* **36**, 5973-5976.

218. **Huang Y**., Lockheart M., Collister J.W. and Eglinton G. (1995) Molecular and isotopic biogeochemistry of the Miocene Clarkia Formation: Hydrocarbons and Alcohols. *Organic Geochemistry* **23***,* 785-801.

219. **Huang Y.** and Murray M. (1995) Identification of 1,6,17,21-octahydrobotryococcene in a sediment. *J .Chem. Soc. Chem. Comm.* 335-336.

220. **Huang Y**., Li T., Lockheart M. J., Peakman T. M. and Eglinton G. (1994) C_{26} to C_{32} 1,3-alkanediols, a novel series of biological markers identified in Miocene (17-20 Ma) leaf fossils and sediment. *Natural Product Letters* **4**, 15-20.

221. **Huang Y.,** Fu J., Sheng G., Geng A. and Cheng Y. (1992) The investigation of characteristics of biomarker assemblages and their precursors in Damintun ultra-high wax oils and related source rocks. *Organic Geochemistry* **19***,* 29-39.

PATENTS

1) **Yongsong Huang** (2007): A High-Throughput Solvent Evaporator and Gas Manifolds with Uniform Flow Rates and Independent Flow Controls. U.S. Utility patent No. 12/303,226. Licensed to Glas-col (http://www.glascol.com). in July, 2010. (An article published in Laboratory Equipment describing this product can be found at: http://www.laboratoryequipment.com/article-ie-Flexible-and-Efficient-Solvent-Removal-040111.aspx)

2) **Yongsong Huang**, Jose Aponte, James Dillon, Rafael Tarozo (2010) Functionalized chromatographic materials and methods of making and using therefor. Provisional patent filed by Brown University on Aug. 6, 2010, International PCT filed on Aug 5. 2011. Patent No. 61/371,201; patent awarded in December, 2019 (https://patents.google.com/patent/US20200147582A1/en)

3) **Yongsong Huang,** Rafael Tarozo, Ewerton Santos, Marcelo Alexandre (2022) Improved mass spectrometer performance for compound-specific isotope analysis. US. Provisional patent application #: 63/338,935 (filed on 5/6/2022)

FELLOWSHIPS AND AWARDS

- British Royal Society Queen's fellowship: Oct., 1991 to Sept., 1992
- Salamon Award, Brown University, 2001
- Hans Fellow, Germany (Hanse-Wissenschaftskolleg, Institute for Advanced Study), University of Bremen. 6 months in spring to summer 2009 during my sabbatical.
- Teagle Fellow; Brown-Dartmouth Teagle grant, awarded to initiate an interdisciplinary course in analytical chemistry at Brown University, 7/2011 – 6/2012
- Senior Fellowship: Swiss ETH, September to December, 2022

MEMBERSHIPS

American Geophysics Union, American Chemical Society, European Association of Organic Geochemists

RESEARCH FUNDING

Funded

Agency	Project title	Award Amount ($)	Support Period
NSF PI: Freeman Co-PI: Huang	Carbon-limitation in Pleistocene tropical ecosystems: A test of the roles of CO_2 and aridity using molecular and isotopic proxies ($325,000 total budget)	$ 35,000 to Huang at Brown	2/1/99 to 1/31/02
NSF PI: Huang Co-PI: Webb	Hydrogen isotopic composition of individual biomarkers from lake sediments: a new proxy for paleoclimate research	$ 220,000 +REU $ 6210	9/1/00 to 8/31/03
ACS-PRF PI: Huang	Carbon and hydrogen isotopic fractionation by freshwater green alga *Botryococcus braunii*: a new geochemical indicator of depositional environments in lakes	$ 25,000 + 15,000 supplement	7/1/00 to 8/31/02

NASA PI: Huang	Hydrogen isotopic compositions of individual organic compounds in carbonaceous meteorites	$ 210,000	8/1/01 – 8/1/04
NSF PI: Huang	Acquisition of a bench-top gas chromatograph – mass spectrometer (Brown University provided additional 30 % matching fund)	$ 64,989 + $19497 matching	9/1/01 – 9/1/03
Salomon award (Brown Univ.) PI: Huang	Compound-specific hydrogen isotopic analysis as a powerful new approach for fingerprinting oil spills	$ 14,467	9/1/01 – 9/1/03
Chevron oil company PI: Huang	Development of new approaches to study petroleum systems	$ 45,000	1/1/01 to 12/31/03
ACS-PRF PI: Huang	Hydrogen isotopic fractionation of individual compounds during biodegradation of petroleum hydrocarbons	$ 80,000	9/01/03 to 8/31/06
NSF (ESH) PI: Huang	Centennial-scale climate variability in New England during the Holocene: New insights from compound-specific hydrogen isotope analysis	$ 318,314	9/01/03 to 8/31/07
NSF (ESH) PIs: Hu, Kaufman, Huang,	Collaborative Research: Holocene Climatic Variability in Southern Alaska -- Quantitative Estimates of Temperature and Precipitation, Warm Intervals, and Possible Cyclicity (Multi-institution project, with total budget about $1 million)	$ 75,000 to Huang	9/01/03 to 8/31/06
NSF (Ecology) PI: S. Jackson Co-PI: Huang and others	Climate extremes and episodic invasions: a late Holocene case study from the western Great Lakes region (multi-institution project, with total budget of $ 400,000)	$39,000 to Huang	5/1/04 to 4/30/07
NASA (Exobio) PI: Huang	Compound-specific isotopic study of carbonaceous chondrites: implications for the origin of meteoritic organic compounds	$ 263,978	6/1/04 to 5/31/07
NSF (ESH) PIs: Jackson, Huang, and others	Collaborative research: Multiproxy archives of late Holocene climate variability from ombrotrophic peatlands in eastern North America	$ 119,792 to Huang	7/01/04 to 6/31/07
NIEH Lead PI: Kim Boekelheide	Developing new organic analytical approaches to study organic pollutants; Superfund project to Brown University (National Institute of Environmental Health): total direct cost to Brown for five years, ca $ 10 million.	$52,000 (direct cost) to Huang	4/05 to 4/2010
NSF-OPP PI: Huang	Laminated west Greenland lake sediments as unique climatic and biogeochemical archives	$ 483,983	9-05 to 9-09
NSF-OCE PI: Herbert Co-PI: Huang	The Deuterium-Hydrogen Ratio in Alkenones as a Proxy for the Paleo-hydrological Cycle	$ 85,000	9-05 to 8-06
NSF-GRS PI: Terwilliger, Huang	Collaborative research: Climate, land use, and the rise and fall of powerful Sub-Saharan African societies	$ 53,507 to Huang	2-06 to 2-08
National Geographic Society PI: Huang	Unique climatic and biogeochemical archives from laminated west Greenland lake sediments	$ 20,000 (direct cost) to Huang	4-06 to 4-07
NSF-ESH PIs: Fritz, Huang, Baker	Collaborative research: Holocene drought in the North American interior	$ 155,145 to Huang	7-1-06 to 6-30-09

NSF-EAR PI: Russell Co-PI: Huang	Abrupt Climate Change during Marine Isotope Stage 3 in Southern Tropical Africa: Multiproxy Reconstructions from Lake Tanganyika	$313,371	3-22-07 to 3-22-10
NSF-EAR PI: Huang 3 Co-PIs	Acquisition of a high performance liquid chromatograph – mass spectrometer (HPLC-MS)	$ 162,522, with $40,631 Brown matching	8-1-07 to 7-31-08
NSF-DEB PIs: Foster, Huang, Shuman	Collaborative Research: Ecosystem Responses to Progressive and Rapid Climate Change During the Holocene in New England	$124,000 to Huang	9-1-08 to 8-31-10
NASA-EXO PI: Huang	New insight to the prebiotic chemical evolution from advanced molecular and compound-specific isotopic analyses of carbonaceous chondrites	$ 449,211	8/1/09 to 8/31/13
NSF: P2C2 PI: Huang	High resolution, quantitative records of temperature and effective precipitation for the past 25 kyr from Lake Qinghai	$352,667	7/1/09 to 8/30/13
NOAA PI: Russell Co-PI: Huang	High-frequency variations in the Indian Ocean Dipole during the past millennium reconstructed from East African and Indonesian lake sediment cores	$234,436	5/1/09 to 4/30/11
Brown Univ. Seed Fund PI: Huang	The dawn of a new era: deciphering the past climatic and ecological changes using integrated DNA and lipid biomarker fingerprints (CoPIs: Linda Amaral, Erika Edwards, James Russell)	$ 80,000	6/09 to 9/11
NIEH Lead PI: Kim Boekelheide	Superfund research project (I am a co-PI in the analytical core of the Superfund project)	$56,000 to Huang	3/09 to 9/13
NSF Lead PI: Huang	EAGER: Collaborative Research: A critical examination on the climatic and environmental factors controlling the H isotopic fractionation between plant leaf waxes and precipitation	$31,720 to Huang	6/10 to 7/13
Brown Univ. Vice president of Research	Funds to assist development and commercialization of the new chromatographic material developed by Y Huang	$20,000	7/11 to 6/12
NSF-EAR PIs: Huang, Amaral	Collaborative Research: Capturing the Elusive 37:4 Alkenone-predominating Lacustrine Haptophyte: Alkenone Biosynthesis, Genetics and Culture Manipulation	$125.917	9/11 to 8/2013
ACS-PRF	Re-Examination of Environmental Controls on Bacterial Branched Tetraether Lipids using North American Soils	$100,000 (direct cost)	1/12 to 12/15
National Geographic Society PI: Huang	Lake sediments north of the Brooks Range, Alaska as quantitative climatic and biogeochemical archives	$ 20,000 (direct cost) to Huang	4-14 to 4-15
NSF, Consortium of Ocean Leadership	IODP Expedition 353: Indian Monsoon	$69,877	11-14 to 11-15
NSF Lead PI: Huang	Collaborative research: reconciling conflicting Arctic temperature and fire reconstructions using multi-proxy records from lake sediments north of the Brooks Range, Alaska	$556,190	7/2015 to 7/2018
NSF Brown PI: Huang	Collaborative Research: P2C2: water isotopes in peat mosses as proxies for understanding climate and atmospheric circulation changes in aouthern Patagonia	$115,847	6/2015 to 6/2017
Brown univ.	Climatic and Environmental reconstruction using lipid biomarkers in ancient	$60,000	3/2015 to

Seed Award Lead PI: Huang	bones: applications in archaeology, paleoclimatology and paleontology		5/2016
Brown Univ. PI; Huang	Grant resubmission award	$15,000	11/2015 to 10/2016
NASA PI: Schultz, Co-PI: Huang	Testing New Methods to Assess the Environmental and Flora/Faunal Responses to Impacts on Earth	$750,000 (Brown portion: $350,000)	11/2016-10/2019
IBES (Brown internal grant) PI: Huang	Testing the 'Standstill Hypothesis' versus the 'Arctic Tundra Fire Hypothesis' using the longest known sedimentary records from Seward Peninsula, Alaska	$30,000	3/2018-2/2019
NSF. EAR PI: Huang	Beyond the unsaturation ratios (UK37' or UK37) of long chain alkenones: unlocking the hidden treasure trove of alkenone-producing haptophytes	$334,447+ suppl. $66,000	8/1/2018 – 7/2023
U.S. Dept of Interior PI: Huang	Tracing the Ice Age Beringian Standstill using microfossils and lipid biomarkers in exceptionally long sedimentary records from Seward Peninsula, Alaska	$222,646 with 17.5 % overhead rate	8/1/2018 – 7/2023
NSF EAR Lead PI: Huang	Acquisition of a gas chromatograph – mass spectrometer system at Department of Earth, Environmental and Planetary Sciences, Brown University	$95,917	10/2018/9/ 2019
Portuguese Foundation for Science and Technology; Co-PI: Huang	When were the Azores archipelago really colonized? A high-resolution paleolimnological approach	$11,300	12/1/2018 to 11/30/2019
IBES (Brown internal grant) Pi: Y. Huang	Developing novel molecular tools to reconstruct past Arctic sea ice extent	$ 30,000	5/2019 to 5/2021
National Geographic Society; PI: Y Huang	Demystifying the prevalent glacial Arctic Tundra Fires through long sedimentary records from Seward Peninsula, Alaska	$ 30,000	4/1/2019-3/31/ 2020
National Science Foundation; Lead PI: Huang	Acquisition of a continuous flow isotope ratio mass spectrometer (IRMS) system for the Organic Geochemistry Core Facility at Brown University	$387,476	8/1/2020-7/31/ 2021
NASA PI: Huang	Prebiotic synthesis of volatile organic compounds: molecular and compound-specific isotopic analyses of OSIRIS-Rex return samples	$808,424	9/1/2022-8/31/2025
NSF PI: Huang	Comprehensive analysis of alkenones and alkenoates by reversed phase HPLC-MS with unprecedented sensitivity and selectivity	$304,397	1/15/2023 - 12/31/2024

Other funding to Brown with my participation/contribution

NSF MRI I am one of the co-PIs	Acquisition of a high resolution mass spectrometer" (NSF 0116441) to Chemistry Department	$206,087	2/01 – 1/03
LUCE Foundation: I am one of the co-PIs	Enhancing the Flow of North-South Environmental Knowledge	$2 million	9/01 – 8/06

TEACHING

Geo 137, Environmental Geochemistry, Taught annually, enrolment ~ 30

Geo 138, Environmental Stable Isotopes, taught alternately with Geol292, enrolment per year ~ 10

Geo 292, Introduction to Organic Geochemistry, taught alternately with Geol138, enrolment per year ~ 10

Geo 291a, Astrobiology, Fall 2003, co-taught with Peter Schultz (enrollment 14, one auditing)

Geo 291b, High Frequency Paleoclimate Variations and Coupled Ocean-Atmosphere Modes, fall 2006, co-taughter with James Russell (enrollment 8, 2 auditing)

Geol1660/Chem1660, Instrumental analysis with Environmental Applications, Co taught 4 times with a chemistry faculty (I am responsible for organic analysis), enrolment ~ 10

GRADUATE STUDENT ADVISING

Completed:

Sian Liao (Ph.D., April, 2022) Long-chain alkenones and related lipids: chemotaxonomy, physiological adaptation, structure elucidation and analytical advancements

Karen Wang (Ph.D., April, 2022) Reconstructing past Arctic sea ice and permafrost changes with lipid biomarkers: proxy development and case studies

Sarah McGrath (Ph.D., August, 2022) Late Pleistocene Orbital-Scale Indian Summer Monsoon Hydroclimates Reconstructed Using Leaf Wax Hydrogen and Carbon Isotopes from the Northeast Indian Margin and Andaman Sea

Richard Vachula (Ph.D, November, 2019) Reconstructing interactions between climate, fire, and human activities from late Quaternary lake sediment records in the Alaskan Arctic and central California

Yinsui Zheng (Ph.D., May, 2018): New Approaches to disentangle mixed-alkenone sources and reconstruct salinity and temperature: Black Sea as a case study.

Gaoyuan Li (Ph.D., May, 2017, Jointly with China University of Geology, Beijing): Genomic and stable isotope approach for paleoclimate and paleoenvironmental reconstructions

William Longo (Ph.D., April, 2017): Temperature and terrestrial carbon cycling in Northeastern Beringia since the last glacial maximum: insights from novel organic geochemical proxies.

William Daniels (Ph.D., April, 2017; joint student with Jim Russell): Climatic and ecological change in Arctic Alaska over the last 32,000 years inferred from lacustrine records and experiments

James Dillon (Ph.D., Feb., 2016 in Chemistry): Development of Silver-Thiolate Functionalized Silica Gel for Pi-Bond Selective Liquid Chromatography Separations

Potter Prize. This prize is awarded annually to the most exceptional chemistry PhD dissertation as judged by a faculty committee. ($2,500).

Elizabeth Thomas (Ph.D., May, 2014): Orbital- and millennial-scale climate variability and seasonality in East Asia reconstructed using molecular paleoclimate proxies.

> Position post graduation: NSF postdoctoral fellowship, Umass Amherst, Massachusetts; Tenure track assistant professor, Univ. New York, Buffalo

Jiaju Zhao (Ph.D., Dec. 2014, Jointly with Nan Zhou University, PRC): Paleoclimate reconstruction of N.W. China from Lake Balikun.

Susanna Theroux (Ph.D., November, 2012): Diversity of lacustrine haptophyte algae: implications for paleothermometry.

> Position post graduation: Joint Genome Institute, Department of Energy, Walnut Creek, California

Li Gao (Ph.D., September, 2012): Mechanisms governing the leaf lipid D/H ratio variations and the application in paleoclimatology.

> Position post graduation: Staff scientist, Power, Environmental & Energy Research Institute, Walnut, California

Jaime Toney (Ph.D., March, 2011): Development and application of organic biomarkers to continental paleoclimate problems in the interior of North America

> Positions post graduation: NERC postdoctoral fellowship, University of Glasgow, Scotland, UK (Jaime was also offered the Yale University Bateman postdoc fellowship but declined); Currently Lecturer, University of Glasgow.

Jonathan Nichols (Ph.D., Sept. 2009): Reconstructing Holocene Hydroclimate in Eastern North America Using Ombrotrophic Peatland Sediments

> Positions post graduation: NASA postdoctoral fellowship, Lamont Doherty Earth Observatory. Currently assistant scientist.

William D'Andrea (Ph.D., Sept 2008): Development and Application of Lacustrine alkenone paleothermometry in Southwestern Greenland

Positions post graduation: NOAA and NSF postdoctoral fellowships; Currently assistant scientist, Lamont Doherty Earth Observatory. Currently assistant scientist.

Juzhi Hou (Ph.D., July 2008): Calibration and Application of lipid H isotopic ratios for Quantitative reconstruction of New England climate variability over the past 15 kyr.

Positions post graduation: Postdoc fellowship, College of Marine Sciences, University of Washington Seattle; Currently Senior Scientist, Institute of Tibetan Plateau Research, Chinese Academy of Sciences, Beijing

Kristy Pond (M.Sc. graduated May, 2002) Application of compound-specific H isotopic analysis to environmental pollutant studies

Positions post-graduation: Director, Marine Safety Laboratory, United States Costal Guard, New London, CT.

Megan Fuller (M.Sc., completed, May, 2003) Quantifying hydrogen-deuterium exchange of meteoritic dicarboxylic acids during aqueous extraction

Position post-graduation: Ph.D. student at University of Virginia, Civil Engineering; currently, Community College of Philadelphia

CURRENT GRADUATE STUDENTS

Desmond Yeo (1 yr)

VISITING PH.D. STUDENTS (JOINT ADVISING)

Marcelo da Rosa Alexandre (Visting Ph.D. student; 1/2003-2/2004; funded by the Brazilian government)
Jiaju Zhao (Ph.D., 2014; Lanzhou University)
Gaoyuan Li (Ph.D., 2018; China University of Geology, Beijing)
Ewerton Santos (2017, Universidade Federal de Sergipe, Brazil)
Michel Souze (2016-2017, Universidade Federal de Sergipe, Brazil
Jie Liang (2015 – 2017), Institute of Tibetan Plateau, Chinese Academy of Sciences
Haichao Xie (2015 – 2017), Lanzhou University, PRC
Lei Huang (2015 – 2017), Institute of Tibetan Plateau, Chinese Academy of Sciences
Xin Chen (2016, three months), University of Science and Technology of China

POSTDOCTORAL RESEARCHERS:

Ewerton Santos (Sept., 2022 to present)

Yong Wang (Dec. 2019 – Dec. 2020); Funded by China Scholar Council

Jiang Chang (Dec. 2019 – May 2020); Funded by China Scholar Council

Quanlian Li (Dec. 208 – Dec. 2019); Funded by China Scholar Council

Yuan Yao (2017 – 2018); Funded by Chinese Academy of Sciences

Jiaju Zhao (2015 – 2017); Funded by Chinese Academy of Sciences

Min Ran (2017 – 2018); Funded by Chinese scholarship

Ann Dunlea (2017; 6 month); Visiting postdoc from WHOI

Li Wang (2016-2017); Funded by Chinese scholarship

Xiaodong Liu (2015 – 2016); Funded by Chinese scholarship

Rencheng Li (2015-2016); Funded by Chinese scholarship

Qingqiang Wang (2014 – 2015): Funded by Chinese scholarship

Li Li (2014-2015); Tongji University, China, Funded by Chinese scholarship

Jose Aponte (Jan. 11, 2010 to May 2012); Funded by YH NASA grant

Roland Zech (1/2009) to 9/2010); Funded by the Swiss Science Foundation

Zhonghui Liu (6/2005 to 12/2006); Funded by YH NSF grants

Yi Wang (8/2000 to 11/2005); Funded by YH NSF and NASA grants

Weiguo Liu (11/2002 to 11/2003); Funded by the Chinese Science Foundation

Jeremy Jacob (2/2003 to 5/2003); Funded by European Association of Organic Geochemists

LABORATORY MANAGERS (FUNDED MAINLY BY MY NSF AND NASA GRANTS):

Rafael Tazoro (from 10/2008 to 6/2017)

Marcelo da Rosa Alexandre (10/2005 to 10/2008; 6/2017 to present)

VISITING PROFESSOR Hong Yang (1/2002-1/2005)

UNDERGRADUATE SENIOR THESIS ADVISING:

1. Kristy Pond (2001); Hydrogen isotopic compositions of individual n-alkanes as an intrinsic tracer for bioremediation and source identification of petroleum contamination

2. Neeta Bijoor (2002): The effect of soil mineral compositions on the selective preservation of biomarcromolecules.

3. Cecily Chun (2002); Hydrogen isotopic fractionation of Green algae under different growth conditions

4. Anne Perring (chemistry major, 2003), Water quality in El Rio Ocoyoacac.

5. Marie Walcot (2004): Paleoclimate records in Ombrotrophic peat: n-alkane distribution and compound-specific dD and d13C values as biomarkers

6. Justin Bandy (2004): Reconstructing past climates in the Seward Peninsula from lipid compounds stored in tree rings

7. Zachary Tessler (2004): Stable carbon and hydrogen isotope fractionation during automobile engine combustion process: implication for tracing the origin of atmospheric organic pollution

8. Marissa Kakoyiannis (Environmental Science, 2004), PCBs and DDTs in sediments and Ribbed Mussels from the Runnins river, Hudred Acre Cove and Barrington River, Rhode Island.

9. Mena Ramos (2005): Ozonolysis of alkenones: development of a new approach for D/H analysis, and structural determination of a novel series of monounsaturated aldehydes from Greenland lakes.

10. Fatma Nazihah M. Khatib (2005): Unsaturation Indices of Long-Chain Alkenones and Newly Discovered Aldehydes: Regional Climate Recorded in West Greenland Lake Sediment

11. Noah Weiss (Chemical Engineering major, 2005): thermal degradation of commercial polymers used for water storage, and the impacts of degradation on the migration of potentially harmful compounds into drinking water samples

12. Andrew Michelson (2005): Humidity recorded in acid leaf waxes: the effect of humidity on leaf wax hydrogen and carbon isotope ratios and chain length.

13. Sarah Wettley (2006): Isolation and structural elucidation of long-chain aldehydes and ketones in Greenland lake sediments"

14. Luke Parsons (2006): Abrupt climate changes and consequences ~8.2 ka as recorded in geochemical proxies from Rocky Pond, MA"

15. Sarah Ladd (2006): D analysis of alkenones and 2-hepta-cosanone: method development, validation, and potential applications"

16. Mark McGuire (2007): A 5000 year record of Holocene climate in west Greenland: Geochemical analysis of sediments from a closed basin, oligosaline lake”

17. Devina Swarup (2007): A high-resolution climate reconstruction of the past ~ 8,000 years from a meromictic lake in SW Greenland

18. Cassidy Mckee (2007): Structures and chirality of the aliphatic components in the insoluble organic matter of carbonaceous chondrites: A study of the Orgueil Meteorite”

19. Stephanie Chu (Environmental Science, 2008), Halogenated hydrocarbons in Rhode Island fish

20. Corynn Brodsky (2008): Radiocarbon dating of lake sediments using terrestrial-plant derived lignin phenols

21. LeAnne Edwards (2008, chemistry major), Synthesis of amino acids on the mineral surface and implications for the origin of chirality

22. Joshua Stern (2009): Sulfur-bound biomarkers of a Monterey shale and a Greenland lake sediment.

23. Siobhan Littlejohn (2009, Chemistry major): n-alkyl lipid distribution and hydrogen isotope variation in terrestrial and aquatic plants from Blood Pond, MA.

24. Elizabeth Denis (2010): Polycyclic aromatic hydrocarbons (PAHs) as biomarkers of regional fire in the paleorecord”

25. Aaron Becker (2010): Exploring the acid to alkane ratio as a proxy for lake depth

26. Andre Burnier (2011, Biology major): leaf wax D fractionation: a comparison across growth forms.

27. Marshall Moore (2011): Re-examining the environmental variables controlling the GDGT continental paleo-climate proxy using North America Soils

28. Jody DeAraujo (ongoing thesis, graduation in 2012). High-resolution records of precipitation and temperature from sediments of Lake Gahai, Qinghai for the past 500 years.

29. Zoe Stephenson (chemistry major, ongoing thesis, graduation in 2012). Scaling-up the purification of omega-3 fatty acids using AgTCM flash chromatography, and cost analysis.

30. Julia Guimond (2013) Leaf wax isotopic and chemical compositions measured from base-to-tip in five terrestrial C_3 plant species: Implications for paleoclimate reconstructions

31. David Feigenbaum (2014) How do light limitation and leaf wax removal from sugar cane leaves affect their carbon and hydrogen isotopic ratios

32. Hengrui Liu (2014) Determining the double bond positions of alkenone isomers in Alaskan lake sediments. Beijing University, Department of Chemistry, Visiting undergrad thesis (funded by Beijing University)

33. Siqi Li (2015) Flow-through analysis of PAHs in sediment cores using fluorescence detector (visiting undergrad from University of Science and Technology of China, funded by China)

34. Xiaoyu Zhang (2015) Paleotemperature reconstruction using branched GDGTs in Lake E5 sediment core spanning the LGM to Holocene. (summer Visiting undergrad from China University of Geology, funded by China)

35. Sophia Kunselman (2015) Evidence of solar influence on changes in sea-surface temperature of the Nordic Seas: results from disentangling mixed alkenone signals using the UK38'Me unsaturation index

36. Patrick Holland-Stergar (2015) A leaf wax hydrogen isotopic record of Northern Alaskan temperature from the Last Galcial Maximum to the present (joint advising with Jim Russell)

37. Yifan Zhang (2016) Characterization of novel alkenone and alkenoate isomers in haptophyte algal cultures and sediments.

38. Josue Crowther (2016) LGM to Holocene temperature and fire history from northern Alaska: implications for paleoclimatology, paleoecology and anthropology.

39. Fatima Husain (2017) A multiproxy Holocene climate reconstruction from Northern Alaska

40. Zachary Garvin (2017) Inducing the bacterial production of brGDGT lipids in a suboxic peat environment

41. Derek Rott, (2018) Identifying salinity-associated haptophyte species variation in the Baltic Sea using 18S rDNA sequencing and lipid biomarker analysis

42. Patrick Heng (2018) Evolution of the Black Sea salinity in the past 16,000 years: new insights from alkenone distributions

43. Johanna Garfinkel, ongoing. Reconstruction of spring temperature of Southern and Northern Iceland using freshwater lacustrine alkenones

44. Joseph Novak, 2019, Extended chain alkenones for paleothermometers

45. Veronica Gordon, 2019, PAH in lake sediments as a proxy for human colonization of the Azores

46. Sophia Yin, 2019, Alkenoates as biomarkers for differentiating Group 2 and 3 Isochrysidales.

47. Gordon Sherman, ongoing, exploring arctic alkenones using UPLC orbitrap MS, method development and applications.

PROFESSIONAL SERVICE (NOT UP TO DATE)

Invited session chair for the International Radiocarbon conference to be held in Paris on July 8-13, 2012.

Invited workshop participant by National Science Foundation to discuss the future directions of NSF "Geology and low temperature geochemistry" program, July, 2010.

NSF Office of Polar programs, panel member, 4/2009

Panel review member, NASA Cosmochemistry, Astrobiology (5 panels attended so far)

Member of Editorial Board for Journal of Paleolimnology September, 2000 to present

Session Chair: **"**New Applications of Isotope Geochemistry to Limnogeology and Paleolimnology", 3rd International Limnogeology Congress, 2003

Chief Organizer and session chair: "Continental Paleoclimate Records: Proxy Development, Quantitative Reconstructions, and Modeling", December, 2005 fall AGU, 66 abstracts received.

Session Chair, Fall AGU 2007: Organic geochemical and isotopic approaches to the study of climatic and environmental change

Chair, committee for selecting outstanding student presentations at meetings of American Geophysics Union, Paleoclimatology and Paleoceanography fall, 2007 to present

Co-chair for session: Organic Geochemical Paleoclimate Proxies in Lakes and Bogs: From Calibration to Quantitative Reconstruction, 2009 International Limnogeology Congress

I review on average ~ 10 peer reviewed publications (including journals like Nature, science, GCA, EPSL, Geology, organic geochemistry etc.) per year, and ~ 5-6 NSF and NASA grant proposals per year. I am also frequently asked to review proposals for the Science foundation of Germany, France, and Netherlands.

DEPARTMENTAL AND UNIVERSITY SERVICE (NOT UP TO DATE)

Advisory committee on corporate Responsibility in Investment Policies

	Sept, 2017 -
University Resources Committee, Brown	Fall 2012 to Dec. 2014
Freshman Advisor, Brown University	Fall 2007, 2008, 2009, 2017-
University Diversity Board	Fall 2006 to 2008
Chairs advisory committee	2005 to 2006; 2008 - 2010
Professional development seminars	three times since 2000
Curriculum committee	Sept, 2002 to Sept 2003; Sept 2011 -2015
Junior faculty mentoring committee	Jim Russell, Meredith Hastings
Faculty search committee	members for many searches
Chair, faculty appointment committee	2009, for Zoe Cardon (Brown-MBL)
Department Safety Committee	September, 2000 to 2003
XRF committee	September, 2000 to 2004

Graduate student research advisory committee member (in addition to my graduate students): Bryan Shuman; Victor P. Zabielski; Zhonghui Liu, Lorraine Lisiecki, Kira Lawrence, Jeremy Fisher; Kira Lawrence; Leah Hutchison; Caitlin Chazen; Carlos Rincon, Emily Pohlman, Jessica Tierney, Jeff Salacup, Shannon Loomis, Bronwen Konecky, Danielle Grogan, Seth Kadish, Hannah Kaplan (not complete list)