Eric E. Roden – Peer Reviewed Publications (updated 9-27-21)

Numbers in parentheses indicate relevant research award(s) in Research Funding History (see appended)

1. Zhang, F. F., H. F. Xu, E. S. Shelobolina, H. Konishi, and E. E. Roden. 2021. Precipitation of low-temperature disordered dolomite induced by extracellular polymeric substances of methanogenic Archaea Methanosarcina barkeri: Implications for sedimentary dolomite formation. *Am. Miner.* 106:69-81. (25)

2. Dunham, E.C., J.E. Dore, M.L. Skidmore, E.E. Roden, and E.S. Boyd. 2021. Lithogenic hydrogen supports microbial primary production in subglacial and proglacial environments. *Proc. Nat. Acad. Sci. USA* 118:e2007051117. (31, 35)

3. Napieralski, S. A., and E. E. Roden. 2020. The weathering microbiome of an outcropping granodiorite. *Front. Microbiol*. 11:601907. (31, 35)

4. Fortney, N. W., B.L.Beard, J. A. Hutchings, M. R. Shields, T. S. Bianchi, E. S. Boyd, C. M. Johnson, and E. E. Roden. 2020. Geochemical and stable Fe isotopic analysis of dissimilatory microbial iron reduction in Chocolate Pots hot spring, Yellowstone National Park. *Astrobiology*. 21:83-102. (31)

5. Zhao, Q., S. Dunham-Cheatham, D. Adhikari, C. Chen, A. Patel, S. R. Poulson, D. Obrist, P. S. J. Verburg, X. Wang, E. R. Roden, A. Thompson, and Y. Yang. 2020. Oxidation of soil organic carbon during an anoxic-oxic transition. *Geoderma*. 377:114584. (33)

6. Yu, W. B., H. F. Xu, D. Y. Tan, Y. H. Fang, E. E. Roden, and Q. Wan. 2020. Adsorption of iodate on nanosized tubular halloysite. *Appl. Clay Sci.* 184:10. (28)

7. Napieralski, S. A., H. L. Buss, S. L. Brantley, S. Lee, H. Xu, and E. E. Roden. 2019. Microbial chemolithotrophy mediates oxidative weathering of granitic bedrock. *Proc. Nat. Acad. Sci. USA* 116:26394-26401. (31, 35)

8. Yost, J. L., E. E. Roden, and A. E. Hartemink. 2019. Geochemical fingerprint and soil carbon of sandy Alfisols. *Soil Syst.* 3:22. (35)

9. Yu, W. B., H. F. Xu, E. E. Roden, and Q. Wan. 2019. Efficient adsorption of iodide from water by chrysotile bundles with wedge-shaped nanopores. *Appl. Clay Sci.* 183:10. (28)

10. Jung, H. B., H. F. Xu, and E. E. Roden. 2019. Long-term sorption and desorption of uranium in saprolite subsoil with nanoporous goethite. *Appl. Geochem.* 102:129-138. (28)

11. Thiel, V., A.M.G. Costas, N.W. Fortney, J.N. Martinez, M. Tank, E.E. Roden, E.S. Boyd, D.M. Ward, S. Hanada, and D.A. Bryant. 2019. "*Candidatus* Thermonerobacter thiotrophicus," A non-phototrophic member of the *Bacteroidetes*/*Chlorobi* with dissimilatory sulfur metabolism in hot hpring mat communities. *Front. Microbiol.* 9:3159. (31)

12. He, S. M., M. P. Lau, A. M. Linz, E. E. Roden, and K. D. McMahon. 2019. Extracellular electron transfer may be an overlooked contribution to pelagic respiration in humic-rich freshwater lakes. *mSphere* 4:e00436-00418. (31, 35)

13. Mejia, J., S. He, Y. Yang, M. Ginder-Vogel, and E. E. Roden. 2018. Stability of ferrihydrite-humic acid coprecipitates under iron-reducing conditions. *Environ. Sci. Technol.* 52: 13174–13183. (32, 33)

14. Amenabar, M. J., D. R. Colman, S. Poudel, E. E. Roden, and E. S. Boyd. 2018. Electron acceptor availability alters carbon and energy metabolism in a thermoacidophile. *Environ. Microbiol.* 20:2523-2537. (31)

15. Fortney, N. W., S. He, B. Converse, E. S. Boyd, and E. E. Roden. 2018. Investigating the composition and metabolic potential of microbial communities in Chocolate Pots hot springs. *Front. Microbiol.* 9:2075. (31)

16. Fortney, N. W., S. He, A. Kulkarni, M. Friedrich, C. Holz, E.S. Boyd, E.E. Roden. 2018. Stable isotope probing of microbial iron reduction in Chocolate Pots hot spring, Yellowstone National Park. *Appl. Environ. Microbiol.* 11 e02894-17 (31)

17. Stern, N., J. Meija, S. He, Y. Yang, M. Ginder-Vogel, and E. E. Roden. 2018. Dual role of humic substances as electron donor and shuttle for dissimilatory iron oxide reduction. Environ. Sci. Technol. 52:5691−5699. (32, 33)

18. He, S., R. A. Barco, D. Emerson, and E. E. Roden. 2017. Comparative genomic analysis of neutrophilic iron(II) oxidizer genomes for candidate genes in extracellular electron transfer. *Front. Microbiol.* 8:1584. (31)

19. Adhikari, D., Q. Zhao, K. Das, J. Mejia, R. X. Huang, X. L. Wang, S. R. Poulson, Y. Z. Tang, E. E. Roden, and Y. Yang. 2017. Dynamics of ferrihydrite-bound organic carbon during microbial Fe reduction. Geochim. Cosmochim. Acta 212:221-233. (33)

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