Research Field: GEOCHEMISTRY, PLANETARY INTERNAL STRUCTURE
Focused Field: Exoplanets Interiors and Atmospheres

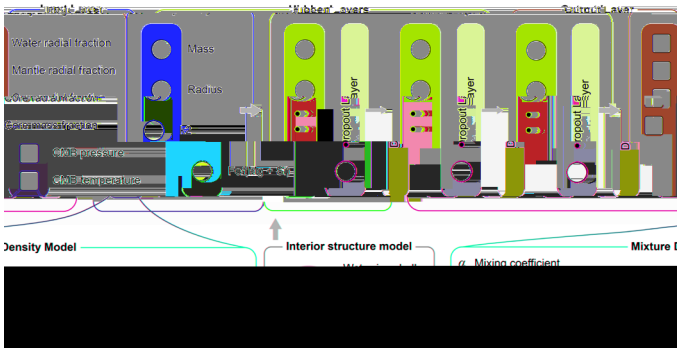
SHORT BIO

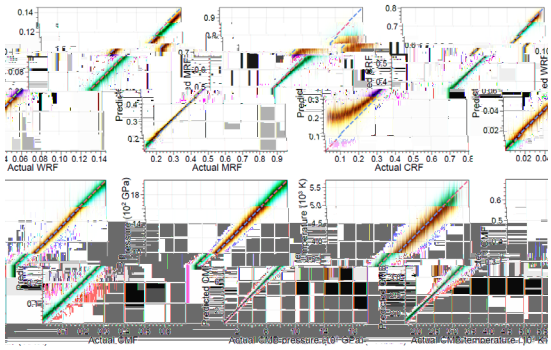
My research interests are ☒AO

PhD: GEOCHEMISTRY – Institute of Geology and Geophysics Chinese Academy of Sciences

Masters: GEOCHEMISTRY – Institute of Geology and Geophysics Chinese Academy of Sciences

Degree: RESOURCES EXPLORATION ENGINEERING – Shandong University of Science and Technology





PUBLICATIONS

1. Zhao, Y., Ni, D., & Liu, Z. (2023). Machine learning inferences of the interior structure of rocky exoplanets from bulk observational constraints. The Astrophysical Journal Supplement Series, Accepted.
2. Zhao, Y., Zhang, Y., & Ni, D. (2023). Dynamic evolution of changbaishan volcanism in Northeast China illuminated by machine learning. Frontiers in Earth Science, 10. https://doi.org/10.3389/feart.2022.1084213
3. Zhao, Y., & Ni, D. (2022). Understanding the interior structure of gaseous giant exoplanets with machine learning techniques. Astronomy & Astrophysics, 658, A201. https://doi.org/10.1051/0004-6361/202142874
4. Zhao, Y., & Ni, D. (2021). Machine learning techniques in studies of the interior structure of rocky exoplanets. Astronomy & Astrophysics, 650, A177. https://doi.org/10.1051/0004-6361/202140375
5. Zhao, Y., Zhang, Y., Geng, M., Jiang, J., & Zou, X. (2019). Involvement of Slab-Derived Fluid in the Generation of Cenozoic Basalts in Northeast China Inferred from Machine Learning. Geophysical Research Letters, 46(10), 5234–5242. https://doi.org/10.1029/2019gl082322
6. Li, C., Shen, P., **Zhao, Y.**, Li, P., Zhang, L., & Pan, H. (2022). Mineral chemistry of chlorite in different geologic environments and its implications for porphyry Cu ± Au ± Mo deposits. Ore Geology Reviews, 149, 105112. https://doi.org/10.1016/j.oregeorev.2022.105112
7. Liu, W., Zhang, Y., Yin, Q.-Z., **Zhao, Y.**, & Zhang, Z. (2020). Magnesium partitioning between silicate melt and liquid iron using first-principles molecular dynamics: Implications for the early thermal history of the Earth's core. Earth and Planetary Science Letters, 531, 115934. https://doi.org/10.1016/j.epsl.2019.115934
8. Liu, X. L., Zhang, Q., Li, W. C., Yang, F. C., **Zhao, Y.**, Li, Z., et al. (2018). Applicability of large-ion lithophile and high field strength element basalt discrimination diagrams. International Journal of Digital Earth, 11(7), 752–760. https://doi.org/10.1080/17538947.2017.1365959
9. Zhang, Q., Sun, W., **Zhao, Y.**, Yuan, F., Jiao, S., & Chen, W. (2019). New discrimination diagrams for basalts based on big data research. Big Earth Data, 3(1), 45–55. https://doi.org/10.1080/20964471.2019.1576262

PROFESSIONAL EXPERIENCE

Macau University of Science and Technology – Postdoc
Macau University of Science and Technology – Assistant Professor

PRESENTATIONS

Annual Meeting of Chinese Geoscience Union (CGU), Beijing, 2016
16th International Workshop on the Frontiers of Computational Geodynamics, Beijing, 2019
National Planetary Science Conference, Suzhou, 2021

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