

JESSE T. GU

Department of Earth and Planetary Sciences, Harvard University
20 Oxford Street, Cambridge, MA 02138
jessegu@g.harvard.edu
(512) 986-3209

Education

Harvard University 2020 –
Ph.D. student in Earth and Planetary Sciences
Advisor: Rebecca Fischer

The University of Texas at Austin 2016 – 2020
B.S. with High Honors, Geological Sciences, Geophysics
Advisor: Jung-Fu Lin
Thesis: High-pressure elasticity of anhydrous and hydrous rhyolitic glasses

Research Experience

Graduate Research Assistant 2020 –
Laboratory for Mineral Physics, Harvard University
Advisor: Rebecca Fischer

Undergraduate Research Assistant 2017 – 2020
Mineral Physics Lab, The University of Texas at Austin
Advisor: Jung-Fu Lin

Visiting Researcher Summer 2018
Institute for Planetary Materials, Okayama University
Advisor: Takuo Okuchi

Undergraduate Research Assistant Summer 2017
JSG Catalyst Program, The University of Texas at Austin
Advisor: Whitney Behr

Undergraduate Research Assistant 2016 – 2017
The University of Texas at Austin
Advisor: Nicholas Dygert

Publications

Gu, J.T., Fu, S., Gardner, J.E., Yamashita, S., Okuchi, T., and Lin, J.F. (2021). Anomalous elasticity of dry and hydrous rhyolitic glasses up to 3 GPa, *American Mineralogist* (106), 1143-1152.

Dygert, N., Jackson, C.R.M., Hesse, M.A., Tremblay, M.M., Shuster, D.L., and **Gu, J.T.** (2018). Plate tectonic cycling modulates Earth's $^3\text{He}/^{22}\text{Ne}$ ratio, *Earth and Planetary Science Letters* (498), 309-321.

Conference Presentations ([T] = Talk, [P] = Poster)

- 2021 “Incorporation of melt-scaling laws into models of Earth’s accretion and core formation”, *AGU Fall Meeting*, New Orleans, LA. [P]
- 2021 “Incorporation of melt-scaling laws into models of Earth’s accretion and core formation”, *COMPRES Annual Meeting*, Online everywhere. [T]
- 2019 “Anomalous elasticity of dry and hydrous rhyolitic glasses up to 3 GPa”, *AGU Fall Meeting*, San Francisco, CA. [P]
- 2019 “Anomalous elasticity of dry and hydrous rhyolitic glasses up to 3 GPa”, *COMPRES Annual Meeting*, Big Sky, MO. [P]
- 2018 “The effect of H₂O on the anomalous velocities of rhyolitic glasses up to 3 GPa”, *AGU Fall Meeting*, Washington DC. [P]
- 2018 “The effect of H₂O on the anomalous behavior of hydrous rhyolitic glass up to 3 GPa”, *COMPRES Annual Meeting*, Albuquerque, NM. [P]
- 2017 “Pore-scale dissociation of methane hydrate under conditions relevant to Gulf of Mexico reservoirs.”, *DCO EPC Workshop*, Tempe, AZ. [P]
- 2017 “³He/²²Ne variations among ocean island, mid-ocean ridge, and backarc basalts”, *GSA South-Central Meeting*, San Antonio, TX. [P]

Honors and Awards

- 2020 – James Mills Peirce Fellowship, Harvard University
- 2018 – 2019 UT Distinguished College Scholar
- 2018 UT Undergraduate Research Fellowship and JSG Matching Fund
- 2017 Mineralogical Society of America Undergraduate Prize
- 2017 – 2020 Jackson School of Geosciences merit-based scholarship
- 2016 – 2020 University Honors

Outreach

- 2021 – Mentor, Harvard-MIT Science Research Mentoring Program
- 2020 Graduate Application Assistance Initiative
- 2019 – 2020 Volunteer, *Thinkery*, Austin, TX