

**Publications of the Hawaii Institute of Geophysics and Planetology
University of Hawaii
2018**

1. Abedin, M.N., Bradley, A. T., **Misra, A. K.**, Bai, Y., Hines, G. D., **Sharma, S. K.** (2018). Standoff ultracompact micro-Raman sensor for planetary surface explorations. *Applied Optics* 57 (1), 62 – 68. HIGP Pub. #2293, SOEST # 10290.
2. Ahmed, A. S. and 15 others, including **N. Grobbe** (2018). 3D electrical conductivity tomography of volcanoes. *J. Volcanol. Geotherm. Res.*, on-line March 21, 2018, <https://doi.org/10.1016/j.volgeores.2018.03.017>.
3. Applin, D. M., M. R. M. Izawa, E. A. Cloutis, **J. J. Gillis-Davis**, K. M. Pitman, T. L. Roush, A. R. Hendrix, **P. G. Lucey** (2018). Ultraviolet spectral reflectance of carbonaceous materials. *Icarus* 307, 40 - 82.
4. Becker, N.C. and **P. Fryer**. Variations in Depth to Slab, Distribution of Volcanism and Tectonic Features in the Southern Mariana Arc System, *G-cubed*, in press.
5. **Chen, B.**, X. Lai, J. Li, J. Liu, J. Zhao, W. Bi, E. E. Alp, M. Y. Hu, and Y. Xiao. Experimental Constraints on the Sound Velocities of Cementite Fe₃C to Core Pressures. In press, *Earth Planet. Sci. Lett.*
6. **Corley, L. M.**, P. J. McGovern, G. Y. Kramer, M. Lemelin, D. Trang, **J. J. Gillis-Davis**, **G. J. Taylor**, K. E. Powell, W. S. Kiefer, M. Wieczorek, and M. T. Zuber (2018). Olivine-bearing lithologies on the Moon: Constraints on origins and transport mechanisms from M3 spectroscopy, radiative transfer modeling, and GRAIL crustal thickness. *Icarus*, 300C, 287 – 394, doi: 10.1016/j.icarus.2017.09.012.
7. de Ridder, S., **N. Grobbe**, G. Egbert, A. Fichtner, K. Keranen, Y. Li, T. Müller, and B. Romanowicz (2018). Shared advances in exploration and fundamental geophysics – Introduction. *Geophysics*, doi: 128.171.57.189, on-line April 17th, 2018.
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9. **Donohue P. H.**, E. Hill and **G. R. Huss** (2018). Experimentally determined subsolidus metal-olivine element partitioning with applications to pallasites. *Geochimica et Cosmochimica Acta* 222, 305-318.
10. Egan, M. J., Angel, S. M., **Sharma, S. K.** (2018). Optimizing data reduction procedures in spatial heterodyne Raman spectroscopy with applications to planetary surface analogs. *Appl. Spectrosc.*, doi:10.1177/0003702818755136. HIGP Pub. # 2294, SOEST # 10291.
11. Geringer M.E., Andrews A.H., **Huss G.R.**, **Nagashima K.**, Popp B.N., Linley T.D., Gallo N.D., Clark M.R., Jamieson A.J., and Drazen J.C. (2018). Life history of abyssal and hadal fishes from otolith growth zones and oxygen isotopic compositions. *Deep-Sea Research Part I*. 132, 37-50.
12. Hamilton, C. W., **P. J. Mouginis-Mark**, M. M. Sori, S. P. Scheidt and A. M. Branson. Episodes of aqueous flooding and volcanism associated with Hrad Vallis, Mars. *J. Geophys. Res.*, in press, April 2018.
13. **Herrero-Bervera**, E. and L. Jovane. On the paleomagnetic and rock magnetic

- constraints regarding the age of IODP 325 Hole M0058A, in “Magnetic methods and the timing of geological processes”, *Special Book, Geol. Soc. London*, in press.
14. Jedicke, R., J. Sercel, **J. Gillis-Davis**, K. Morenz, L. Gertsch. Availability and delta-v requirements for delivering water extracted from near-Earth objects to cis-lunar space. In press, *Planetary Space Science*.
 15. Jilly-Rehak C. E., **Huss G. R.**, **Nagashima K.**, and Schrader D. L. (2018). Low-temperature aqueous alteration on the CR chondrite parent body: Implications from *in situ* oxygen-isotope analyses. *Geochim. Cosmochim. Acta*, 222, 230 - 252.
 16. Kööp L., Davis A. M., **Krot A. N.**, **Nagashima K.**, and Simon S. B. (2018). Calcium and titanium isotopes in refractory inclusions from CM, CO, and CR chondrites. *Earth Planet. Sci. Lett.*, 489, 179 - 190.
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 18. **Krot A. N.**, **Nagashima K.**, Libourel G., and Miller K. E. Multiple mechanisms of transient heating events in the protoplanetary disk: Evidence from precursors of chondrules and igneous Ca,Al-rich inclusions. In *Chondrules and chondrites: Records of the protoplanetary disk processes* (eds. Russell, Krot, and Connolly), in press, Cambridge University Press.
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 21. **Martinez, F.**, Stern, R. J., Kelley, K. A., Ohara, Y., **Sleeper, J. D.**, Ribeiro, J. M., and Brounce, M. (2018). Diffuse Extension of the Southern Mariana Margin. *J. Geophys. Res.: Solid Earth* 123, doi: 10.1002/2017JB014684.
 22. Melnichenko, A. Amores, N. Maximenko, P. Hacker and **J. T. Potemra** (2018). Signature of mesoscale eddies in satellite sea surface salinity data, *J. Geophys. Res.*, in press.
 23. Miller K. E., Lauretta D. S., Connolly H. C. Jr., Berger E. L., **Nagashima K.**, and Domanik K. A comprehensive assessment of the formation of unequilibrated R chondrite chondrules and opaque phases. *Geochim. Cosmochim. Acta*, in press.
 24. **Murphy, S.**, **Wright, R.**, and Rouwet, D. (2018). Color and temperature of Kelimutu’s volcanic crater lakes. *Bull. Volcanol.* 80, <https://doi.org/10.1007/s00445-017-1172-2>.
 25. **Nagashima K.** Ion Microprobe. In *Encyclopedia of Geochemistry* (ed. White W. M.), in press, Springer International Publishing AG.
 26. **Nagashima K.**, Kita N. T., and Luu T.-H. ²⁶Al-²⁶Mg systematics of chondrules. In *Chondrules and chondrites: Records of the protoplanetary disk processes* (eds. Russell, Krot, and Connolly), in press, Cambridge University Press

27. Petrovsky, E., **E. Herrero-Bervera**, T. Harinarayana and D. Ivers. *The Earth's Magnetic Interior*. IAGA Special Book Series 1, in press.
28. Schrader D. L., **Nagashima K.**, Waitukaitis S. R., Davidson J., McCoy T. J., Connolly H. C., and Lauretta D. S. (2018). The retention of dust in protoplanetary disks: Evidence from agglomeratic olivine chondrules from the outer Solar System. *Geochim. Cosmochim. Acta*, 223, 405-421.
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30. Teehera, K. B., S. P. Jungbluth, B. P. Onac, T. E. Acosta-Maeda, E. Hillebrand, **A. K. Misra**, A. Pflitsch, M. S. Rappe, S. M. Smith, **M. Telus**, N. Schorghofer (2018). Cryogenic minerals in Hawaiian lava tubes: A geochemical and microbiological exploration. *Geomicrobiology J.* <https://doi.org/10.1080/01490451.2017.1362079>.
31. Telus M., **Huss G. R.**, **Nagashima, K.**, Ogliore, R., Tachibana, S. (2018). In situ ⁶⁰Fe-⁶⁰Ni Systematics of Chondrules from Unequilibrated Ordinary Chondrites. *Geochim. Cosmochim. Acta*, 222, 342 – 357.
32. Tema, E. and **E. Herrero-Bervera**. Sharp Geomagnetic Field Variations during the Holocene Identified through Hawaiian Lava Flows. *Earth Planet Sci. Lett*, in press.
33. Tornabene, L. L., W. A. Watters, G. R. Osinski, **J. M. Boyce**, T. N. Harrison, V. Ling, and A. S. McEwen (2018). A depth versus diameter scaling relationship for the best-preserved melt-bearing complex craters on Mars. *Icarus* 299, 68 – 83.
34. Wozniakiewicz P.J., Kearsley A.T., Burchell M.J., Price M.C., **Ishii H.A.** and Cole M.J. (2018). Preparation of large Stardust aluminum foil craters for analysis, *Meteoritics Planet. Sci.*, Early View published online 28 February 2018. doi: 10.1111/maps.13052.