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Publications

PUBLICATIONS

- **The high-pressure lithium-palladium and lithium-palladium-hydrogen systems.** *Scientific reports*
Frost, M., McBride, E. E., Smith, J. S., Glenzer, S. H.
2022; 12 (1): 12341
- **Ultrafast visualization of incipient plasticity in dynamically compressed matter.** *Nature communications*
Mo, M., Tang, M., Chen, Z., Peterson, J. R., Shen, X., Baldwin, J. K., Frost, M., Kozina, M., Reid, A., Wang, Y., E, J., Descamps, A., Ofori-Okai, et al
2022; 13 (1): 1055
- **High Pressure Brillouin Spectroscopy and X-ray Diffraction of Cerium Dioxide** *MATERIALS*
Frost, M., Lazarz, J. D., Levitan, A. L., Prakapenka, V. B., Sun, P., Tkachev, S. N., Yang, H., Glenzer, S. H., Gleason, A. E.
2021; 14 (13)
- **High-Pressure Melt Curve and Phase Diagram of Lithium.** *Physical review letters*
Frost, M., Kim, J. B., McBride, E. E., Peterson, J. R., Smith, J. S., Sun, P., Glenzer, S. H.
2019; 123 (6): 065701
- **High-Pressure Melt Curve and Phase Diagram of Lithium** *PHYSICAL REVIEW LETTERS*
Frost, M., Kim, J. B., McBride, E. E., Peterson, J., Smith, J. S., Sun, P., Glenzer, S. H.
2019; 123 (6)
- **Reactivity of lithium and platinum at elevated densities** *PHYSICAL REVIEW B*
Binns, J., Marques, M., Dalladay-Simpson, P., Turnbull, R., Frost, M., Gregoryanz, E., Howie, R. T.
2019; 99 (22)
- **Unusually complex phase of dense nitrogen at extreme conditions** *NATURE COMMUNICATIONS*
Turnbull, R., Hanfland, M., Binns, J., Martinez-Canales, M., Frost, M., Marques, M., Howie, R. T., Gregoryanz, E.
2018; 9: 4717
- **Characterization of defect clusters in ion-irradiated tungsten by X-Ray diffuse scattering** *JOURNAL OF NUCLEAR MATERIALS*
Sun, P., Wang, Y., Frost, M., Schoenwaelder, C., Levitan, A. L., Mo, M., Chen, Z., Hastings, J. B., Tynan, G. R., Glenzer, S. H., Heimann, P.
2018; 510: 322–30
- **Simultaneous 8.2 keV phase-contrast imaging and 24.6 keV X-ray diffraction from shock-compressed matter at the LCLS** *APPLIED PHYSICS LETTERS*
Seiboth, F., Fletcher, L. B., McGonegle, D., Anzellini, S., Dresselhaus-Cooper, L. E., Frost, M., Galtier, E., Goede, S., Harmand, M., Lee, H. J., Levitan, A. L., Miyanishi, K., Nagler, et al
2018; 112 (22)
- **Understanding the adsorption process in ZIF-8 using high pressure crystallography and computational modelling** *NATURE COMMUNICATIONS*
Hobday, C. L., Woodall, C. H., Lennox, M. J., Frost, M., Kamenev, K., Duren, T., Morrison, C. A., Moggach, S. A.
2018; 9: 1429
- **Equation of state and electron localisation in fcc lithium** *JOURNAL OF APPLIED PHYSICS*
Frost, M., Levitan, A. L., Sun, P., Glenzer, S.
2018; 123 (6)

- **Deformation-aided segregation of Fe-S liquid from olivine under deep Earth conditions: Implications for core formation in the early solar system** *PHYSICS OF THE EARTH AND PLANETARY INTERIORS*
Berg, M. L., Bromiley, G. D., Butler, I. B., Frost, M., Bradley, R., Carr, J., Le Godec, Y., Montesi, L. J., Zhu, W., Miller, K., Perrillat, J., Mariani, E., Tatham, et al
2017; 263: 38–54
- **Formation of xenon-nitrogen compounds at high pressure** *SCIENTIFIC REPORTS*
Howie, R. T., Turnbull, R., Binns, J., Frost, M., Dalladay-Simpson, P., Gregoryanz, E.
2016; 6: 34896
- **Novel high-pressure nitrogen phase formed by compression at low temperature** *PHYSICAL REVIEW B*
Frost, M., Howie, R. T., Dalladay-Simpson, P., Goncharov, A. F., Gregoryanz, E.
2016; 93 (2)