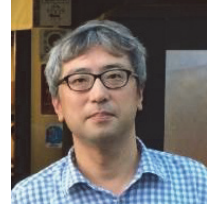


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Education: Ph.D., Tokyo Institute of Technology, Applied Physics, 1998
M. Sc., Tokyo Institute of Technology, Applied Physics, 1995
B. A., Kyoto University, Geology and Mineralogy, 1993

Positions Held: 2008-curr. Associate Professor, Institute for Planetary Materials (2016-) and Institute for Study of the Earth's Interior (2008-2016), Okayama University
2017-curr. Guest Associate Professor, Graduate School of Engineering, Osaka University
2006-2007 Research Fellow, Institute for Advanced Research, Nagoya University
2006 Visiting Fellow, National Research Council, Canada
2003-2005 JSPS Fellow for Research Abroad, at Geophysical Laboratory, Carnegie Institution of Washington, USA (Joint Appointment)
1998-2001 JST PRESTO Research Fellow at "Jyoutai to Henkaku" (Joint Appointment)
1998-2007 Assistant Professor, Graduate School of Science, Nagoya University
1998 JSPS Postdoctoral Research Fellow, at Inst. Low Temp. Sci., Hokkaido Univ.
1995-1998 JSPS Predoctoral Research Fellow, at Tokyo Institute of Technology

Professional Societies:

The Japan Society for Neutron Science, since 2013
Japan Association of Mineralogical Sciences, since 2009
The Physical Society of Japan, since 2005
Mineralogical Society of America, since 1999
The Japan Society of High Pressure Science and Technology, since 1996
American Geophysical Union, since 1996
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Professional Services:

Program Committee Chair, 59th High Pressure Conference of Japan, 2018
Editor-in-Chief, The Review of High Pressure Science and Technology, 2016-18
Vice-Editor-in-Chief, The Review of High Pressure Science and Technology, 2014-16
Executive Committee, Japan Society of High Pressure Science and Technology, 2014-18
Editorial Board, The Japanese Society for Planetary Science, 2007-curr.
Editorial Board, The Review of High Pressure Science and Technology, 2009-2012
Program Committee, Japan Geoscience Union, 2006 to 2009

Award Received: Gordon Research Conference "High Pressure, Research At" Best Poster Award, 2006

Graduate Advisor: E. Takahashi (Tokyo Institute of Technology)

Post-Graduate Advisors: T. Koda (PRESTO/JST), R. J. Hemley (GL/CIW), and H. K. Mao (GL/CIW)

Research Interests: High Pressure Mineral Physics, Crystallography, Neutron Scattering, NMR

Graduate Students Supervised for PhD:

Narangoo Purevjav, PhD at ISEI, Okayama University, 2012-2017

Services as a Member of Defense Examination / Graduation Committee for:

Xinzhuan Guo, PhD at ISEI, Okayama University, 2013

Hong Yang, MSc. at HPSTAR Shanghai, 2018

Pre- and Post- Doctoral Research Fellows Supervised:

Jesse Gu (Undergraduate student at The Univ. of Texas at Austin), 2018

Rafaella B. Pena (Undergraduate student at Federal Univ. of Sao Carlos, Brazil), 2017

Naoki Noguchi (PhD, currently assistant professor at Tokushima Univ.), 2014-16

Anissha Raju (Undergraduate student at Univ. of Colorado Boulder), 2016

Yun-Chuan Chung (Undergraduate student at National Cheng Kung Univ.), 2015

Jennifer Beam (Undergraduate student at The Univ. of Texas at Austin), 2015
Louise Schoneveld (Undergraduate student at James Cook Univ. currently PhD student at Australian National Univ.), 2013
Heejung Hwang (Graduate Student at Yonsei Univ.), 2012
Kristina Dunkel (Graduate Student at Univ. of Münster, currently PhD student at Univ. of Oslo), 2012
Purevjav Narangoo (Undergraduate Student at Mongolian Univ. of Science and Technology), 2011

Undergraduate Students Supervised:

Y. Igarashi, I. Taniguchi, N. Kurita, T. Shigeki, M. Ikeda, K. Morishita, A. Tada
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Peer-reviewed Publications:

- Yang, H., J. F. Lin, M. Y. Hu, M. Roskosz, W. Bi, J. Zhao, E. E. Alp, J. Liu, J. Liu, R. M. Wentzowitch, T. Okuchi, and N. Dauphas, Iron isotopic fractionation in mineral phases from Earth's lower mantle: Did terrestrial magma ocean crystallization fractionate iron isotopes?, *Earth Planet Sci. Lett.*, 506, 113-122, 2019.
- Okuchi, T., N. Tomioka, N. Purevjav, and K. Shibata, Quasielastic neutron scattering of brucite for analyzing hydrogen transport at the atomic scale, *J. Appl. Cryst.*, 51, 1564-1570, 2018.
- Fu, S., J. Yang, Y. Zhang, J. Liu, V. Prakapenka, T. Okuchi, and J. F. Lin, Melting behavior of the lower-mantle ferropervicite across the spin crossover: Implication for the ultra-low velocity zones at the lowermost mantle, *Earth Planet Sci. Lett.*, 503, 1-9, 2018.
- S. Fu, J. Yang, Y. Zhang, T. Okuchi, C. A. McCammon, H. I. Kim, S. K. Lee, and J. F. Lin, Abnormal elasticity of Fe-bearing bridgmanite in the Earth's lower mantle, *Geophys. Res. Lett.*, 45, 4725, 2018.
- W. P. Hsieh, F. Deschamps, T. Okuchi, J. F. Lin, Effects of iron on the lattice thermal conductivity and dynamics of Earth's deep mantle, *Proc. Natl. Acad. Sci. USA*, 115, 4099, 2018.
- N. Purevjav, T. Okuchi, X. Wang, C. Hoffmann, N. Tomioka, Determination of hydrogen site and occupancy in hydrous Mg₂SiO₄ spinel by single-crystal neutron diffraction, *Acta Cryst.*, 74, B115, 2018.
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- Hartley, N. J., N. Ozaki, T. Matsuoka, B. Albertazzi, A. Faenov, Y. Fujimoto, H. Habara, M. Harmand, Y. Inubushi, T. Katayama, M. Koenig, A. Krygier, P. Mabey, Y. Matsumura, S. Matsuyama, E. E. McBride, K. Miyanishi, G. Morard, T. Okuchi, T. Pikuz, O. Sakata, Y. Sano, T. Sato, T. Sekine, Y. Seto, K. Takahashi, K. A. Tanaka, Y. Tange, T. Togashi, Y. Umeda, T. Vinci, M. Yabashi, T. Yabuuchi, K. Yamauchi, and R. Kodama, Ultrafast observation of lattice dynamics in laser-irradiated gold foils, *Appl. Phys. Lett.*, 110, 071905, 2017.
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Selected Recent Invited Presentations:

- “Linking structures and textures of naturally-shocked planetary materials with laser-shocked crystals analyzed in-situ by XFEL diffraction”, Laser Shock Workshop 2019, High Pressure Science and Technology Advanced Research (HPSTAR), Shanghai, China, January 2019.
- “Quantitative analysis of hydrogen in deep-earth minerals by TOF Laue single crystal neutron diffraction”, Geophysical Laboratory Seminar Series, Carnegie Institution of Washington, Washington DC, USA, October 2018.
- “Hydrogen transportation dynamics in hydrous minerals by quasielastic neutron scattering”, Quantum Beam Science Fiesta 2016, Tsukuba, Japan, March 2017.
- “Insulating, semiconducting and metallic states of water at dynamic compression by laser-driven shock wave”, Water X: Exotic properties of water under extreme conditions, Hotel Le Saint Paul, Nice, France, July 2016.
- “Insulating, semiconducting and metallic states of water at dynamic compression by laser-driven shock wave”, Water X: Exotic properties of water under extreme conditions, Nice, France, July 2016.
- “Properties of H-C-N-O planetary fluids at interior conditions of icy giants”, International Workshop on Warm Dense Matter 2015, Kurashiki, Japan, June 2015.