Hongyou Fan
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Current Position: Geochemistry Department Manager, DOE Office of Sciecne BES Sandia Geoscience Program Manager, and DOE FECM Sandia Critical Materials Program Manager, Sandia National Laboratories, Albuquerque, New Mexico:

Responsible for overseeing the Sandia DOE Basic Energy Science Geoscience Program and leading a group of scientists to address the complex challenges related to the materials science and engineering, energy storage through development of advanced nanomaterials and in-situ material characterizations (High pressure X-ray scattering, in-situ X-ray scattering, in-situ TEM/SEM etc.).

Education and Employment History:

Degree	Major	Institution	Date
Ph.D.	Chemical Engineering	University of New Mexico	2000
B.S.	Chemistry	Jilin University	1990

2020 – present R&D Manager, Geochemistry Department, Sandia National Laboratories, Albuquerque, NM

2020 – present Program Manager, DOE SC BES Sandia National Labs Geoscience Program

2021 – present DOE FECM Critical Minerals Program Manager, Sandia National Laboratories, Albuquerque, New Mexico

2018 – 2020 Affiliate Scientist, Center for Integrated Nanotechnologies (CINT), Sandia National Laboratories, Albuquerque, NM

2017 – present National Laboratory Professor, Department of Chemical and Biological Engineering, University of New Mexico, Albuquerque, NM.

2015 – present Distinguished Member of Technical Staff, Sandia National Laboratories, Albuquerque, NM

2007 – 2014 Principal Member of Technical Staff, Sandia National Laboratories, Albuquerque, NM

2002 – 2007 Senior Member of Technical Staff, Sandia National Laboratories, Albuquerque, NM

Honors and Activities:

- MRS/The Kavli Foundation Frontiers of Materials Keynote Lectureship (2025)
- Federal Laboratory Consortium (FLC) for Technology Transfer - Outstanding Researcher Award (2025)

- Fellow of the Royal Society of Chemistry (2025)
- MRS Medal (2024)
- FLC Technology Transfer Award for commercializing Long-Lasting Disinfectant 2.0 (2024)
- Fellow of the American Chemical Society (2023)
- 2020 Elected-Chair, 2021 Chair, and 2022 Past Chair for the ACS Central New Mexico Section
- The Society of Asian Scientists and Engineers (SASE) Career Achievement Award (2022)
- Six independent R&D Magazine, R&D 100 Award in 2022, 2020, 2018, 2016, 2010, 2007
- Mid-Career Researcher Award (2019)
- New Mexico State Legislature recognition for distinguished achievements as serial innovators in 2019
- American Physical Society (APS) Fellow (2016)
- MRS Fellow (2016)
- MRS Kavli Distinguished Lectureship Award in Nanoscience (2015)
- 2015 MRS Spring Meeting Co-Chair
- Cornell High Energy Synchrotron Source (CHESS) User Executive Committee (2014-2016)
- Asian American Engineer of the Year Award (2012)
- 2020 *MRS Bulletin* Volume Organizer
- MRS Medal Award Committee Chair (2017 – 2022)
- MRS Program Development Subcommittee (2015 – 2021)
- Executive Committee Member and contributor for the Implementation Plan for Chemical Industry R&D Roadmap for Nanomaterials by Design, 2005
- Editorial Board Member for *Nature-Scientific Reports*, *ACS Applied Nano Materials*, *Journal of Physics: Materials*

Interests:

High pressure small/wide angle X-ray scattering, in-situ X-ray scattering characterization of molecular/material self-assembly, in-situ TEM/SEM, advanced nanomaterials synthesis, assembly, characterization, and applications in clean energy and materials related fields.

Ideas for advocacy for the user community:

- Organize focused group brainstorming or webinars on future research topics at the user meetings to establish new areas of interest through integration of AI/ML and self-driving laboratories for in-situ synchrotron characterization tools.
- Organize symposia through major societies such as MRS, ACS on specific topics relevant to different APS user groups such as in-situ characterizations, will provide a great platform for exchanging results and idea across user community.
- Promote industrial and government R&D users by taking advantage of APS in-situ X-ray characterization facility to impactful research areas in clean energy and climate related fields.
- Help the user community prepare for the shutdown and upgrade of the APS facility in the coming years and hope to focus on ways of increasing user access through virtual and remote operations.