



Dr. Hao Yan
Associate Professor

Department of Chemistry
University of North Texas
1508 W Mulberry St
Denton, TX 76201
E-mail: Hao.Yan@unt.edu
Phone: 940-369-5437
Website: <https://haoyangroup.com>

Position: Post-Doctoral Scholar/Research Associate

About the Yan Research Lab:

The Yan lab has established a unique program at the nexus of high-pressure science, chemistry, and material science. We are particularly interested in high-pressure precision mechanochemistry in inorganic and organometallic systems, as well as high-pressure material discovery.

Dr. Hao Yan joined UNT in September 2019 and was promoted to Associate Professor in 2026. The Yan lab is equipped with synthetic, spectroscopy and high-pressure tools including a variety of diamond anvil cells and hydrostatic pressure cells, a DAC-compatible microscope cryostat, Paris-Edinburgh press, a 400-MPa reactor, integrated confocal Raman / PL / UV-Vis spectrometer, glove box, and Schlenk line. We also have in-house machining capabilities for custom instrumentation. The Yan lab has access to shared facilities at UNT including X-ray diffractometer, electron microscopes, and high-performance computing cluster. We make frequent use of synchrotron techniques including scattering and core-level spectroscopy. To learn more about the Yan Lab at the University of North Texas, please visit <https://haoyangroup.com>.

About the Position:

The postdoc will be co-advised by Dr. Hao Yan and Dr. Shengqian Ma, the Welch Chair of Chemistry at UNT. The scope of work includes but is not limited to:

- High-pressure mechanochemistry of inorganic systems
- High-pressure optoelectronic properties and phase transitions of porous materials
- High-pressure materials synthesis

This is a one-year position and can be renewed for another year upon mutual agreement.

Qualifications & Requirements:

- Ph.D. in chemistry, physics, materials science or relevant disciplines
- Strong background in the synthesis and spectroscopic (Raman, X-ray absorption, UV-Vis, IR) study of inorganic / organometallic compounds
- Experience in computational modeling and high-pressure experiments are desirable
- Strong verbal and written communication skills a must

Application:

Applicants should send CV and recent publications to Hao.Yan@unt.edu. Expected start date: Dec. 2026 – Jan. 2027.