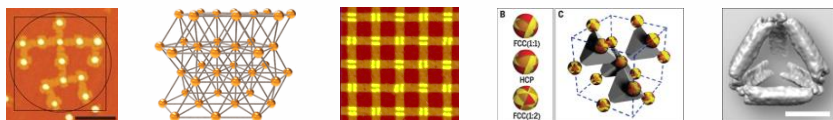


Nanomaterials with Bioanalytical Chemistry

Research Topics

- Design programmable soft materials with tailored functions
- Develop analytical strategies for applications in environment, human health, and life science *et al.*
- Fabricate electrochemical biosensor for medical diagnosis
- Nanoparticle analysis for aerospace combustion and environmental contamination

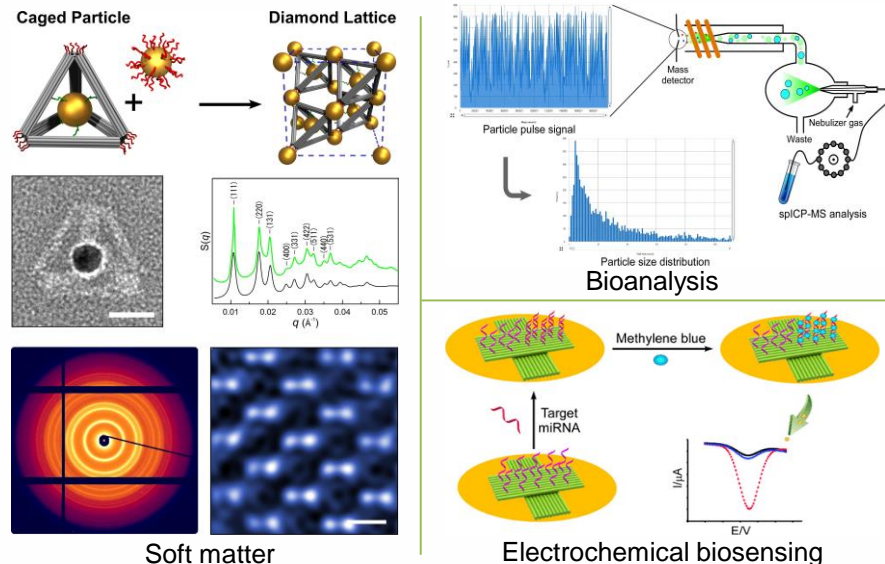
Techniques: AFM, TEM, Cyro-EM, SEM, SAXS, DLS, TOC, ICP-MS, ICP-OES, GFAA, IC, HPLC, GC-ECD/FID, GC-MS, LC-MS/MS, Fluorescence Microscopy



Contact Information

Wenyan Liu, Ph.D.

Assistant Research Professor
Department of Chemistry
Center for Research in Energy and Environment
Email: liuweny@mst.edu
Phone: (573) 341-4838



Selected Publications

- W. Liu, M. Tagawa, H. Xin, T. Wang, H. Emamy, H. Li, K. Yager, F. Starr, A. Tkachenko, O. Gang, Diamond family of nanoparticle superlattices, **Science**, 2016, 351, 582.
- W. Liu, J. Halverson, Y. Tian, A. Tkachenko, O. Gang, Self-organized architectures from assorted DNA-framed nanoparticles, **Nature Chemistry**, 2016, 8, 867.
- Y. Tian, T. Wang, W. Liu, H. Lin, Y. Ke, W. Shih, O. Gang, Prescribed nanoparticle cluster architectures and low-dimensional arrays built using octahedral DNA origami frames, **Nature Nanotechnology**, 2015, 10, 637.
- W. Liu, N. Mahynski, O. Gang, A. Panagiotopoulos, S. Kumar, Directionally interacting spheres and rods form ordered phases, **ACS nano**, 2017, 11, 4950.