The objective of this work is to synthesize and characterize porous coordination polymers with pillared layer structures to determine their structure properties and evaluate the CO$_2$ adsorption capacity of different bipyridine pillar ligands. Functionalization with metal cations via post-synthesis modification will be performed to coordination polymers having pillar ligands with organic groups between the pyridine rings.

**Publication and Oral Presentations**

- Hernández-Maldonado, A.J. Synthesis and Characterization of Nanoporous Coordination Polymers for Carbon Dioxide Adsorption and Storage Applications. HBCU Aerospace Collaboration Symposium, Ohio Aerospace Institute, Cleveland, OH. **2009**