A postdoctoral position is available beginning approximately March 15, 2018 (negotiable), in the Department of Chemistry and Biochemistry at Duquesne University, located in Pittsburgh, Pennsylvania. The research project includes the structural and physicochemical characterization of new, multinary chalcogenides with promising infrared nonlinear optical properties, among others. A variety of synthetic methods will be pursued to prepare these materials as microcrystalline powders and single crystals, such as traditional high-temperature solid-state synthesis, polysulfide flux synthesis, iodine vapor transport and Bridgman growth. Characterization methods will include, but are not limited to, powder and single crystal X-ray diffraction, solid-state UV/Vis/NIR diffuse reflectance spectroscopy, thermal analysis, scanning electron microscopy and energy dispersive spectroscopy. Qualified applicants should possess a Ph.D. degree before they begin the position. A background in solid-state chemistry, condensed matter physics or materials science and experience using X-ray diffraction is essential. Experience performing Reitveld refinements (GSAS or other program) and/or DFT calculations (WIEN2K or other program) is desirable, but not necessary. Other skills that would be of use for this project include the ability to work with data obtained via neutron powder diffraction, as well as magnetic, nonlinear optical and electrical property measurements. Interested applicants should send a complete resume and a short cover letter to Professor Jennifer A. Aitken via email as soon as possible, aitkenj@duq.edu. Three letters of recommendation may be requested from applicants at a later date, but should **not** be sent with these initial application materials. The e-mail should have the subject heading “Solid-State Postdoc Position – Applicants last name”.