

Synthesis of porous material containing rare earth metal

Abstract:

Rare earth elements are considered a crucial strategic resource. Many modern technologies depend on the use of these elements. Separation of these elements is challenging and energy intensive. Simpler and less energy intensive separation methods are desirable. In this poster we will discuss the synthesis of some porous material containing a few rare earth elements. The porous materials were synthesized by solvothermal methods. Products were characterized by infrared spectroscopy and X-ray crystallography. Isolated materials are mostly microcrystalline. However, we were able to grow larger crystals for one of the compounds. We will also discuss and present the experimentally determined solid state structure of the compound.