

The Chevrel phases are just one important example of the third category. The Chevrel phases are composed of $[\text{MoX}_8]^{n-}$ anionic clusters where X = S, Se, Te, and stack to form low dimensional conductors at room temperature and superconductors at lower temperatures (with critical temperatures as high as 13 K).

Research Proposal

Closer inspection of the characteristics of conventional inorganic polymers is warranted and is likely to reveal many new candidates for further studies. Synthesis of new materials is also an important goal and is likely to be a fruitful endeavor. Electron delocalization in low molecular weight analogs of these polymers (i.e., mixed valence complexes such as the famous Taube-Creutz ion) suggest that these materials will be interesting conductors if extended to polymers. Such past work provides a rational starting point for the synthesis of new inorganic conductive polymers.