

Poster Presentation

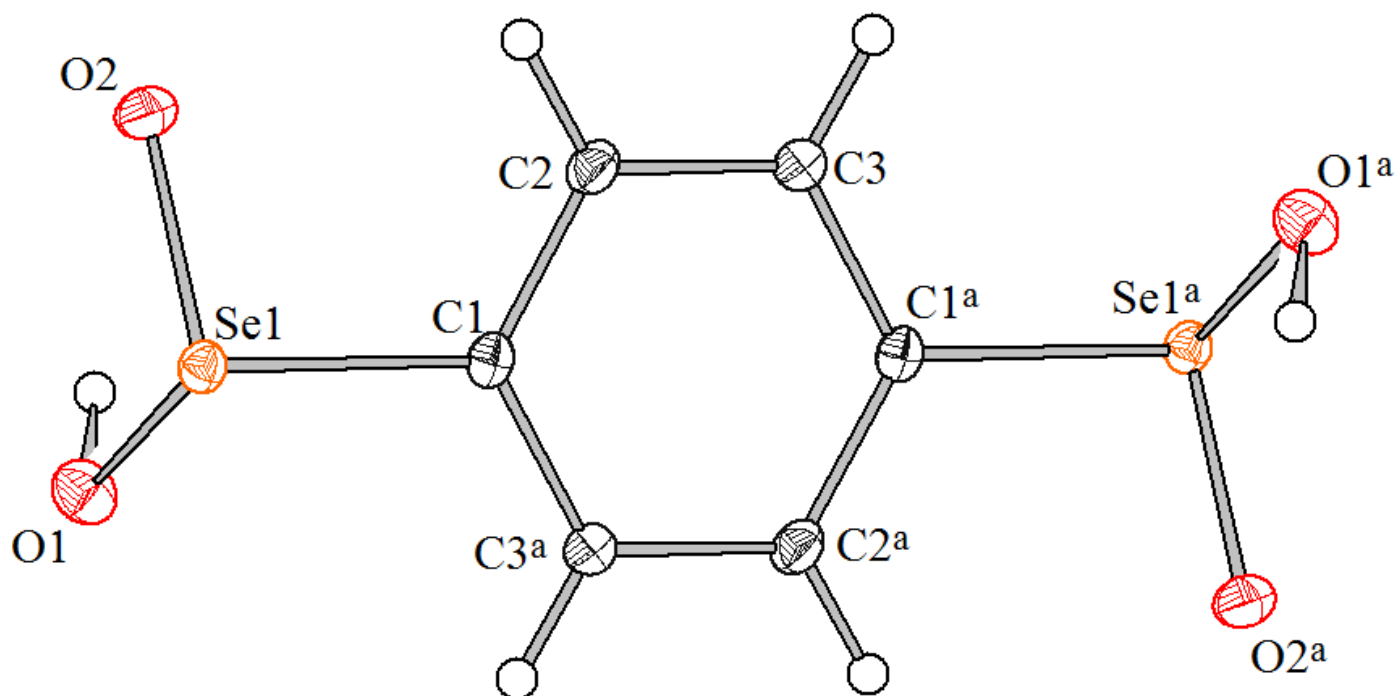
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Coordination polymers of benzenediseleninate, the seleno analog of terephthalate

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The proligand para-benzenediseleninic acid, (HO₂SeC₆H₄SeO₂H) (Figure), is the seleno analog to the commonly used MOF spacer proligand, terephthalic acid. Novel coordination polymers based on this proligand, and Mn(II), Fe(II), Co(II), Ni(II), Cu(II) or Zn(II) metal centers containing auxiliary water molecules, [M(O₂SeC₆H₄SeO₂)₂(H₂O)_n], were synthesized. Depending on the reaction conditions, different pure or mixed phases can be produced. Crystal to crystal transformations of the novel coordination polymers were studied with powder X ray diffraction, infrared spectral analysis and thermal gravimetric analysis. These coordination polymers can be dehydrated with subsequent formation of new anhydrous coordination polymer phases. Some of these phases can be rehydrated to lead back to the crystalline starting materials or to new crystalline hydrated phases. We are working on the complete structural characterization of the phases.



Keywords: para-benzenediseleninate, coordination polymer, crystal to crystal transformation