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# Synthesis of Bis(Hexamolybdate) Complexes Covalently Bridged by Organnoimido Ligands

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SYNTHESIS OF BIS(HEXAMOLYBDATE) COMPLEXES  
COVALENTLY BRIDGED BY ORGANOIMIDO LIGANDS

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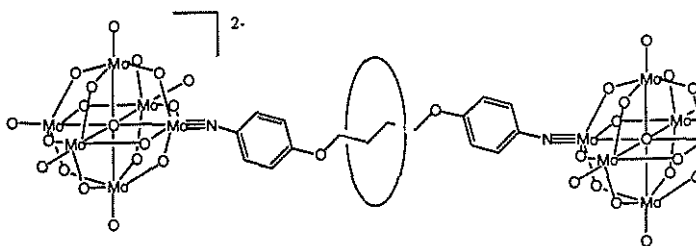


Figure 1

Rotaxanes are supermolecular structures composed of linear molecules threaded through macrocyclic molecular rings and held in place by the addition of large blocking groups to prevent dethreading (Figure 1). Polyoxometalates, such as hexamolybdate ions, are extremely large, highly symmetric clusters that can be used as the blocking groups for rotaxane preparation. Our intent has been to synthesize a Bis(Hexamolybdate) complex to serve as the dumbbell for our rotaxane through the use of difunctional amine linkers. Our current goal is to purify the synthesized complex (Figure 2) and then repeat the procedure with the macrocyclic molecule in place.

Figure 2

