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

Jeremie D. Moll
Illinois Wesleyan University

Rebecca Roesner, Faculty Advisor
Illinois Wesleyan University

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Poster Presentation 34

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

Jeremie D. Moll and Rebecca Roesner*

Department of Chemistry, Illinois Wesleyan University

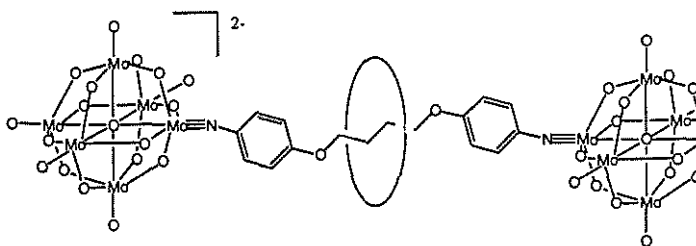


Figure 1

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

