THIOHENE-BASED EXTENDED MACROCYCLES FOR NITRATE BINDING

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Abstract: Protonated polyamines are versatile receptors for binding of a variety of anions in both solution and solid states. Although a significant progress has been achieved in the synthesis of simple polyamines using shorter chains, however reports on the synthetic receptors with an extended cavity are inadequate in the literature. Such compounds are potential to bind larger and even multiple anions in the cavity. In an attempt to synthesize polyamines with variable spacers and chains, we synthesized a new thiophene-based macrocycle with propylene chains for anions. In this poster, we will report the synthesis, binding studies, and crystal structure of the nitrate complex formed with the synthesized compound.

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