

Four Novel N₃O₄ Donor Macrocycles and their Lanthanide(III) Complexes

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A new series of lanthanide(III) complexes with two novel Schiff-base macrocycles, L¹ and L², containing a N₃O₄ donor set have been prepared by cyclocondensation of 2,6-bis(2-formylphenoxy)methylpyridine and 1,2-bis(2-aminophenoxy)ethane or 1,3-bis(2-aminophenoxy)propane, respectively, in the presence of the appropriate metal salt as a template agent. In the absence of the metal salt the macrocycles are not formed. The diamine macrocycles L³ and L⁴ are also formed by reaction of the corresponding diamine and dicarbonyl precursors followed by an *in situ* reduction with NaBH₄. Their complexation potential towards Ln(III) ions were also investigated.

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