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(54) **RATIONAL SYNTHESIS OF HETEROLEPTIC LANTHANIDE SANDWICH COORDINATION COMPLEXES**

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(58) **Field of Search** 540/145, 201; 365/106, 151, 153, 173; 534/15; 556/1

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(57) **ABSTRACT**

A half-sandwich coordination complex, useful for the synthesis of triple-decker sandwich coordination compounds, is produced by reacting a precursor complex of the formula $XM(R^1)_2$ wherein X is a halogen, M is a metal, and R^1 is an amide, with a free base porphyrinic macrocycle to produce said half-sandwich complex. The half-sandwich coordination complex can be used to make a triple-decker sandwich coordination compound by reacting a half-sandwich coordination complex as described above with a double-decker sandwich coordination compound.

31 Claims, No Drawings