Electronic Supplementary Material (ESI) for Dalton Transactions. This journal is © The Royal Society of Chemistry 2015



1. ESI-MS spectra of Eu-CB7 at ligand to metal ratio 1.



2. ESI-MS spectra of Eu-CB7 at ligand to metal ratio 5



3. ESI-MS spectra of Eu-CB5 at ligand to metal ratio 5

4. Optimised structure of CB5 describing R_i (Europium atom (green), Oxygen atom (red), Hydrogen atom (blue), Nitrogen atom (purple) and Carbon (yellow))



5. Optimized structure of Eu(III)CB5(H₂O)₃ in two different geometries (Europium atom (green),

Oxygen atom (red), Hydrogen atom (blue), Nitrogen atom (purple) and Carbon (yellow))

i) Out of three water molecules coordinated to Eu(III), one water molecule encapsulated in the cavity and two water molecules are coordinated from outside (Eu-CB5 A)



ii) All the three water molecules are coordinated to Eu(III) from outside (Eu-CB5 B)

