

Supporting information for:

Ionic liquid-based extraction system using diglycolamide functionalized macrocyclic platforms for the extraction and recovery of lanthanides

M. Wehbie,^{a,b} G. Arrachart,^{a,*} I. Karamé,^b L. Ghannam,^b and S. Pellet-Rostaing^{a,*}

^a: ICSM-UMR 5257, CEA, CNRS, Univ. Montpellier, ENSCM, Bagnols-sur-Cèze, France
guilhem.arrachart@cea.fr ; stephane.pellet-rostaing@cea.fr

^b: LCOM, Department of Chemistry, Lebanese University, Faculty of Sciences I, Hadath, Lebanon.

Table SI- 1 : Extraction data of each individual Ln (III) by CR4-TZ-DODGA and C4-TZ-DODGA at 25° C; [L]= 0.165-2.64 mM in EOip[NTf₂]/ 10 % octanol; [Ln³⁺]=0.66Mm

	[Ligand]	D _{La}	D _{Eu}	D _{Yb}
LI	0.165	0.03	0.31	0.32
	0.33	0.06	0.39	0.87
	0.66	0.09	3.7	7.2
	1.32	0.23	28	89
	2.64	0.52	111	995
LII	0.165	0.08	0.32	0.33
	0.33	0.17	0.87	0.98
	0.66	0.37	4.6	14
	1.32	0.72	30.5	447
	2.64	1.28	187	2239

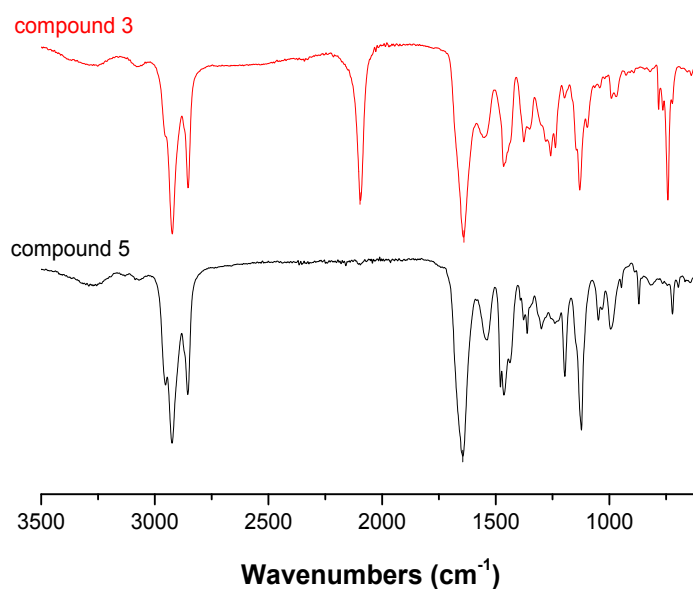


Figure SI-1: IR spectra of compound 3 and 5

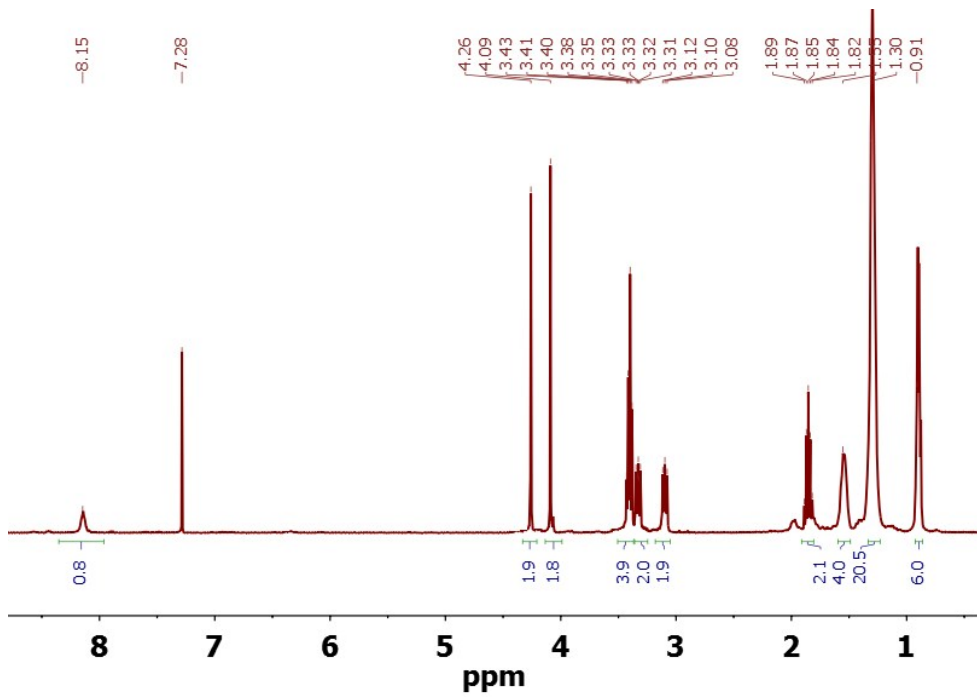


Figure SI- 2: ^1H NMR of compound 3

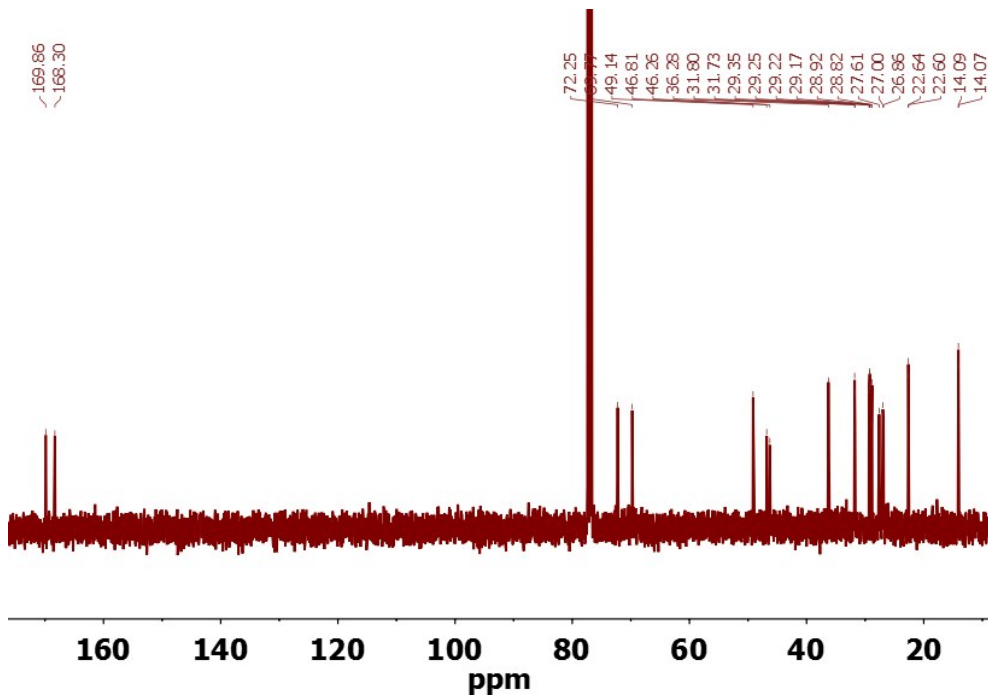


Figure SI- 3: ^{13}C NMR of compound 3

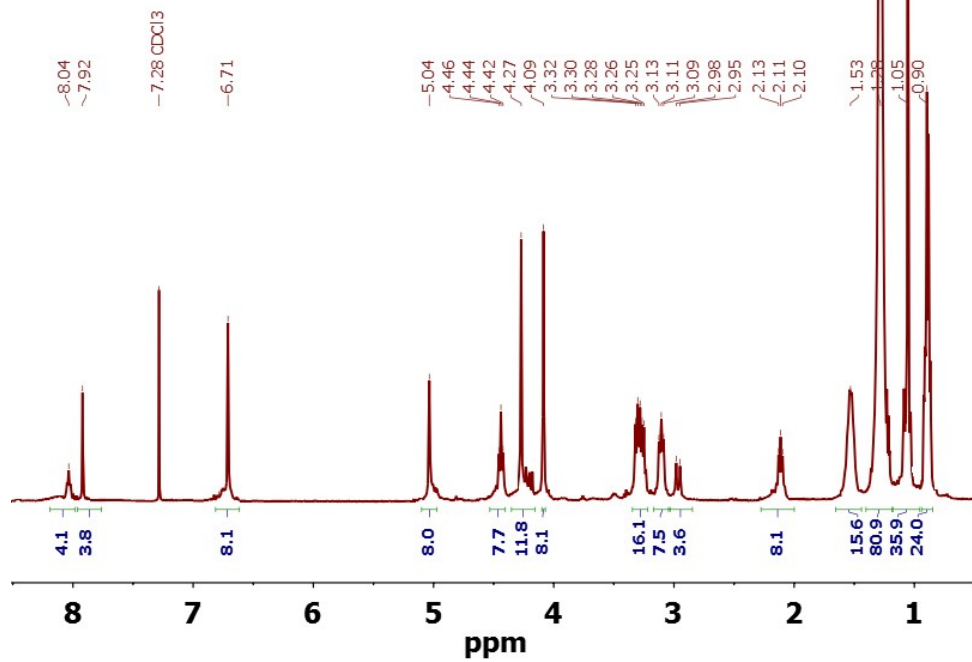


Figure SI- 4: ¹H NMR of compound 5 (LII)

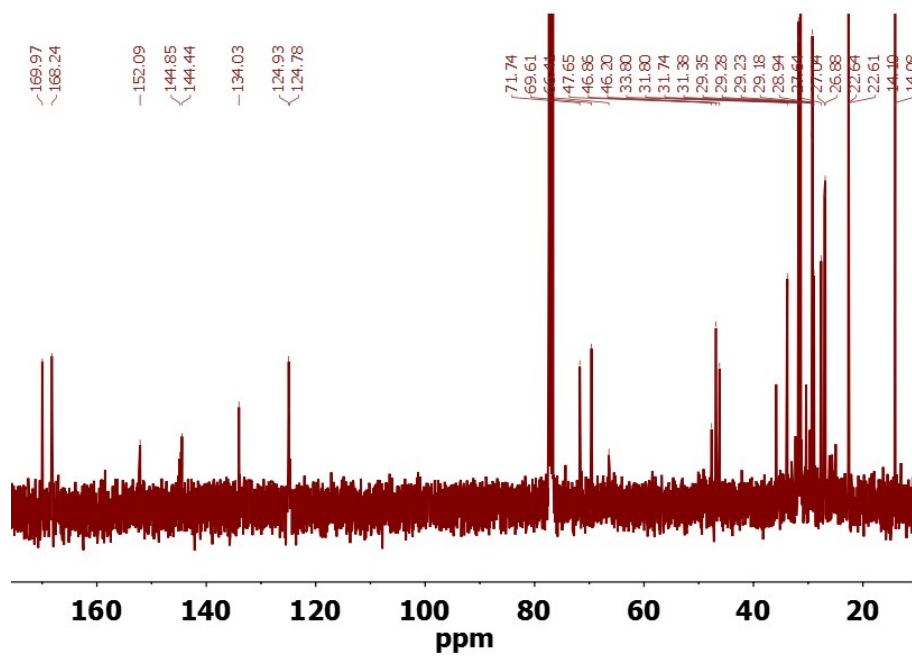


Figure SI- 5 : ¹³C NMR of compound 5 (LII)

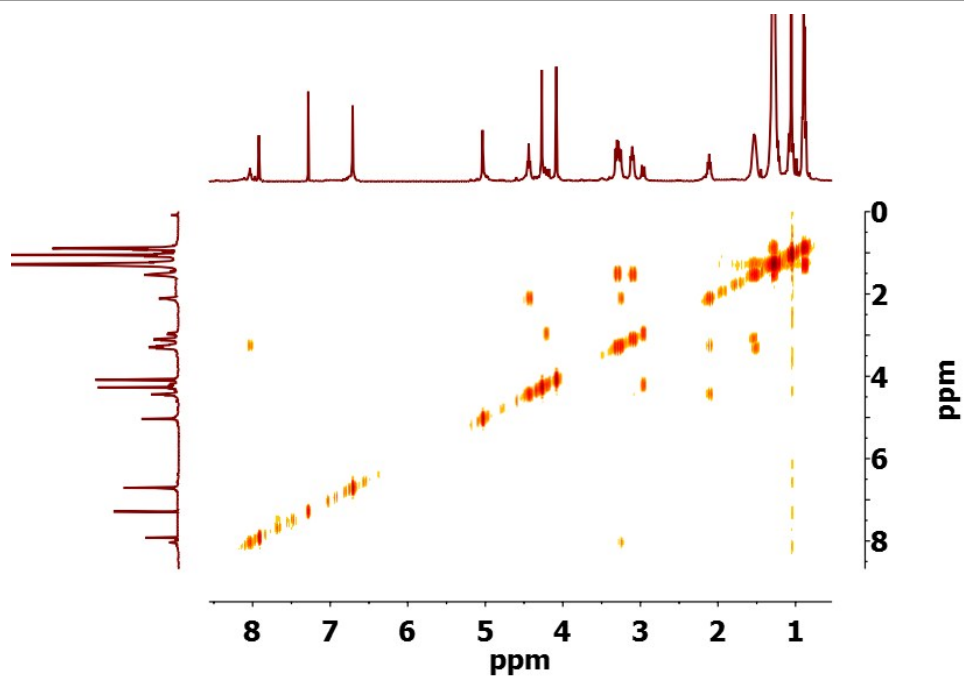


Figure SI- 6 : COSY spectrum of compound 5 (LII)