Electronic Supplementary Material (ESI) for New Journal of Chemistry

Supplementary Information

Synthesis and evaluation of novel water-soluble ligands for the complexation of metals during the partitioning of actinides

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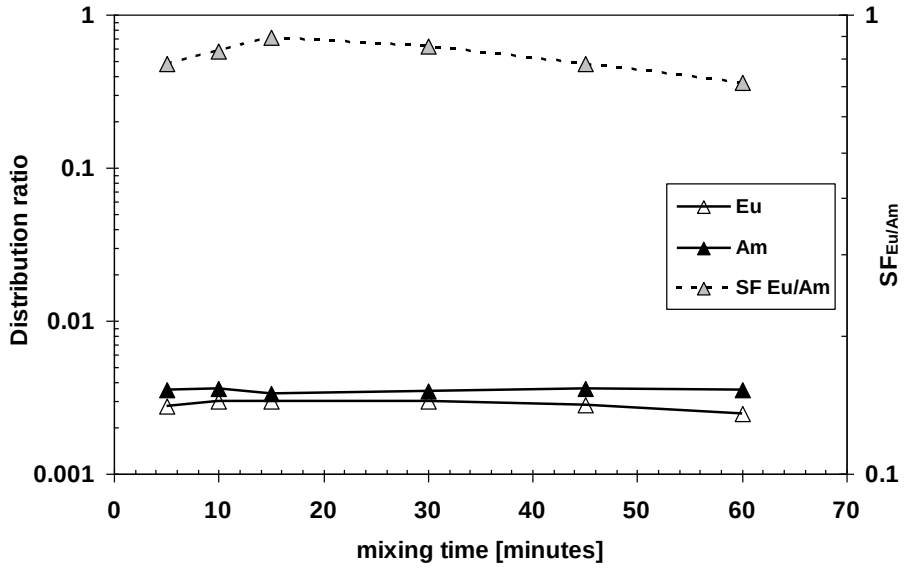

Figure S-1. Mixing time dependency for the extraction of ^{241}Am and ^{152}Eu. Organic phase: 0.2 mol/L TODGA + 5 vol% 1-octanol in TPH. Aqueous phase: 0.5 mol/L NH_4NO_3, 0.1 mol/L ligand **(2)**, pH_{ini} = 3, variable mixing time, tracers: ^{241}Am, ^{152}Eu; T = 22 °C ± 1 °C.

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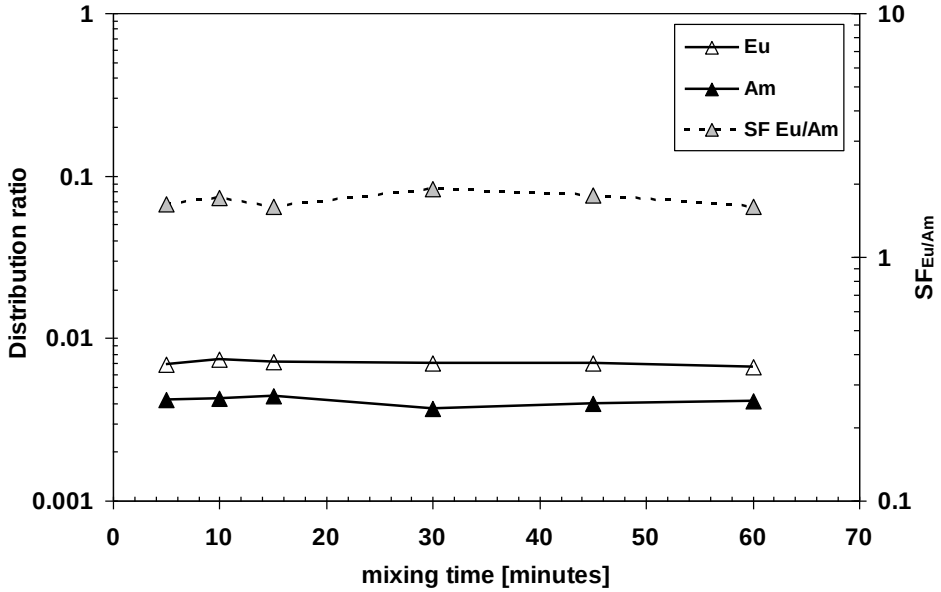

Figure S-2. Mixing time dependency for the extraction of ^{241}Am and ^{152}Eu. Organic phase: 0.2 mol/L TODGA + 5 vol% 1-octanol in TPH. Aqueous phase: 0.5 mol/L NH_4NO_3, 0.1 mol/L ligand **19**, pH_{ini} = 4, variable mixing time, tracers: ^{241}Am, ^{152}Eu; T = 22 °C ± 1 °C.

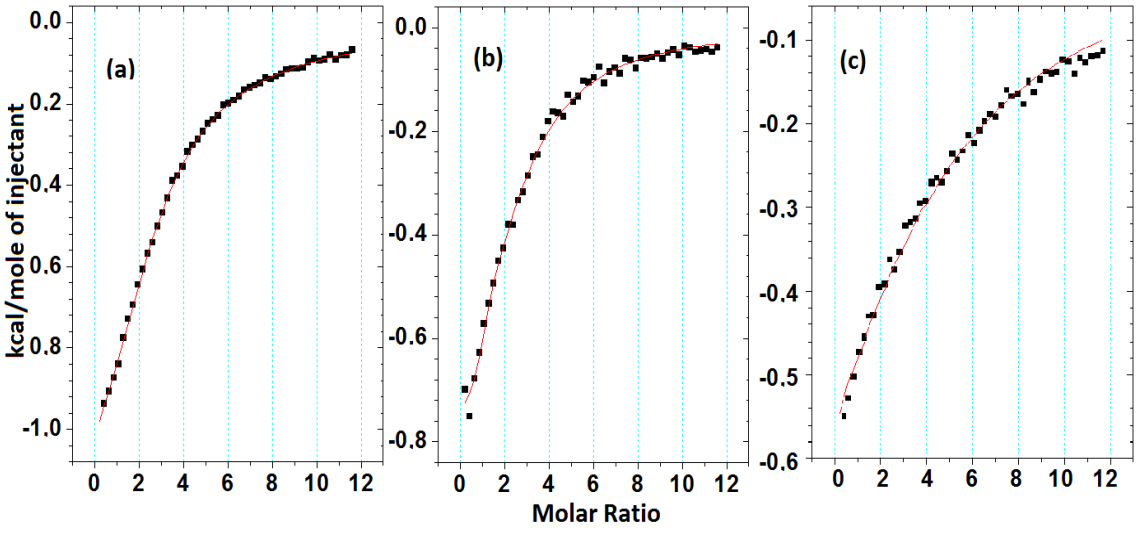

Figure S-3. ITC thermograms of the interaction between Eu(III) and: (a) ligand **2**, (b) ligand **7a,** and (c) ligand **7b**.

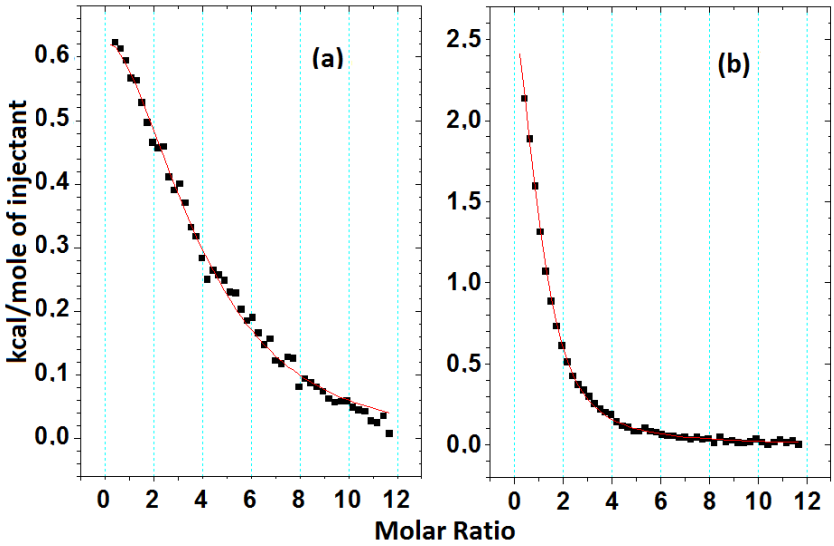

Figure S-4. ITC thermograms of the interaction between Eu(III) and: (a) ligand **21**, (b) ligand **23**.