

*Supporting Information to*

Triethylenetetramine Penta- and Hexa-Acetamide  
Ligands and their Ytterbium Complexes as ParaCEST  
Contrast Agents for MRI

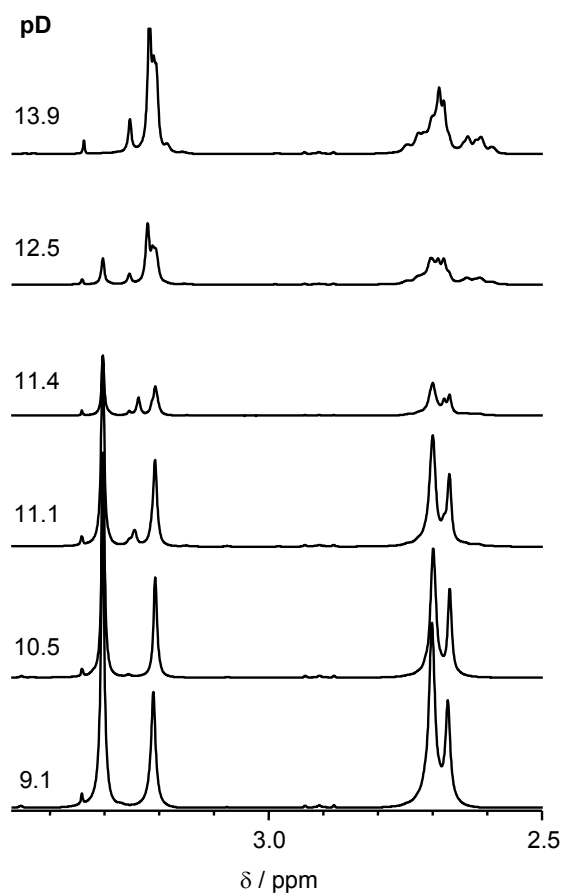
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*Del Pozo Ochoa*

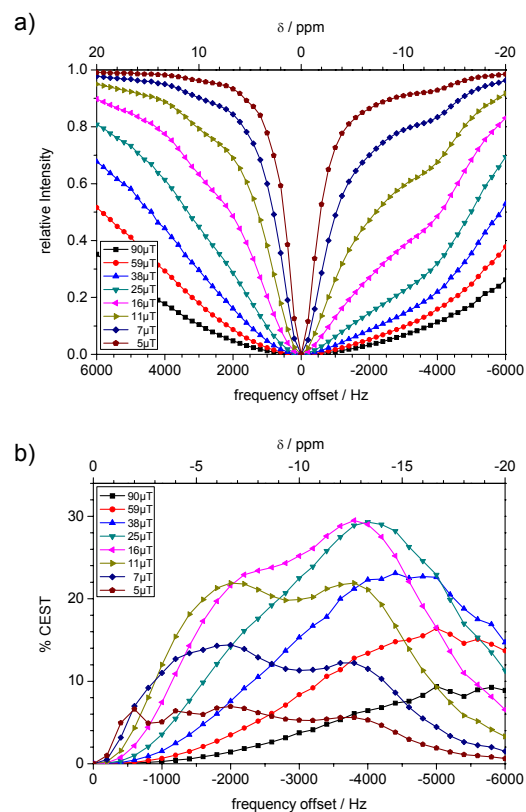
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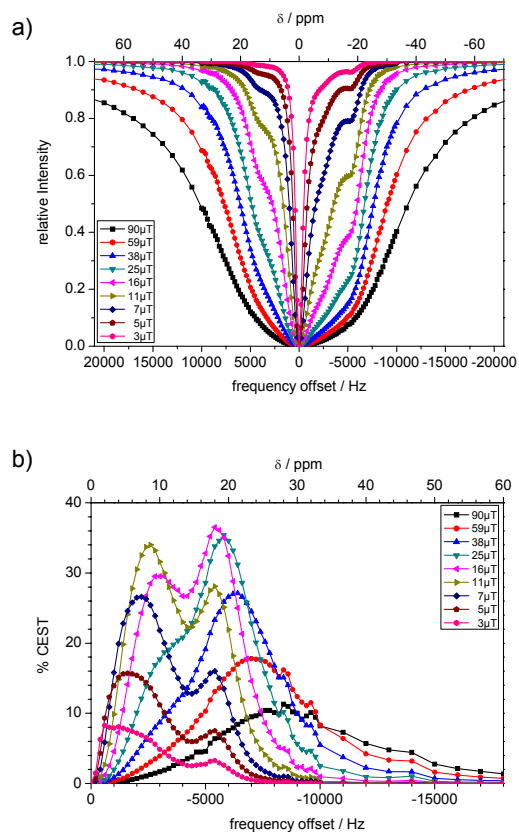
*Dalton Trans.* **2008**



**Figure S1.** NMR spectra of ttham solutions (30 mM) in D<sub>2</sub>O at various pD values between 9.1 and 13.9 (DNO<sub>3</sub>, KOD, no buffer, 25°C). Chemical shifts ( $\delta$ ) are relative to the signal of sodium 3-(trimethylsilyl)-1-propanesulfonate (DSS,  $\delta = 0$  ppm) as the internal standard ( $c(\text{DSS}) = 3$  mM).



**Figure S2.** Proton Z spectra (a) and thereof calculated CEST spectra (b) of the Yb complex of ttaham in aqueous solution ( $c(\text{YbCl}_3) = 20 \text{ mM}$ ,  $c(\text{ttaham}) = 22 \text{ mM}$ ,  $c(\text{MOOPS}) = 10 \text{ mM}$ ,  $T = 310 \text{ K}$ ) at various presaturation power levels. Chemical shifts ( $\delta$ ) are relative to the resonance frequency of TMS ( $\delta = 0 \text{ ppm}$ ), approximated by setting the solvent water protons at 4.75 ppm.



**Figure S3.** Proton Z spectra (a) and thereof calculated CEST spectra (b) of the Yb complex of dtpam in aqueous solution ( $c(\text{YbCl}_3) = 20 \text{ mM}$ ,  $c(\text{dtpam}) = 22 \text{ mM}$ ,  $c(\text{MOPS}) = 10 \text{ mM}$ ,  $T = 310 \text{ K}$ ) at various presaturation power levels. Chemical shifts ( $\delta$ ) are relative to the resonance frequency of TMS ( $\delta = 0 \text{ ppm}$ ), approximated by setting the solvent water protons at 4.75 ppm.