

## Figure Captions for Supplementary Materials

- Figure SI. Variable temperature  $^1\text{H}$  NMR (500 MHz) spectra of  $\text{In}(\text{DTPA-BA}_2)$  in the aliphatic region.
- Figure SII. Variable temperature  $^1\text{H}$  NMR (500 MHz) spectra of  $\text{Y}(\text{DTPA-BA}_2)$  in the aliphatic region.
- Figure SIII. Variable temperature  $^1\text{H}$  NMR (500 MHz) spectra of  $\text{Lu}(\text{DTPA-BA}_2)$  in the aliphatic region.

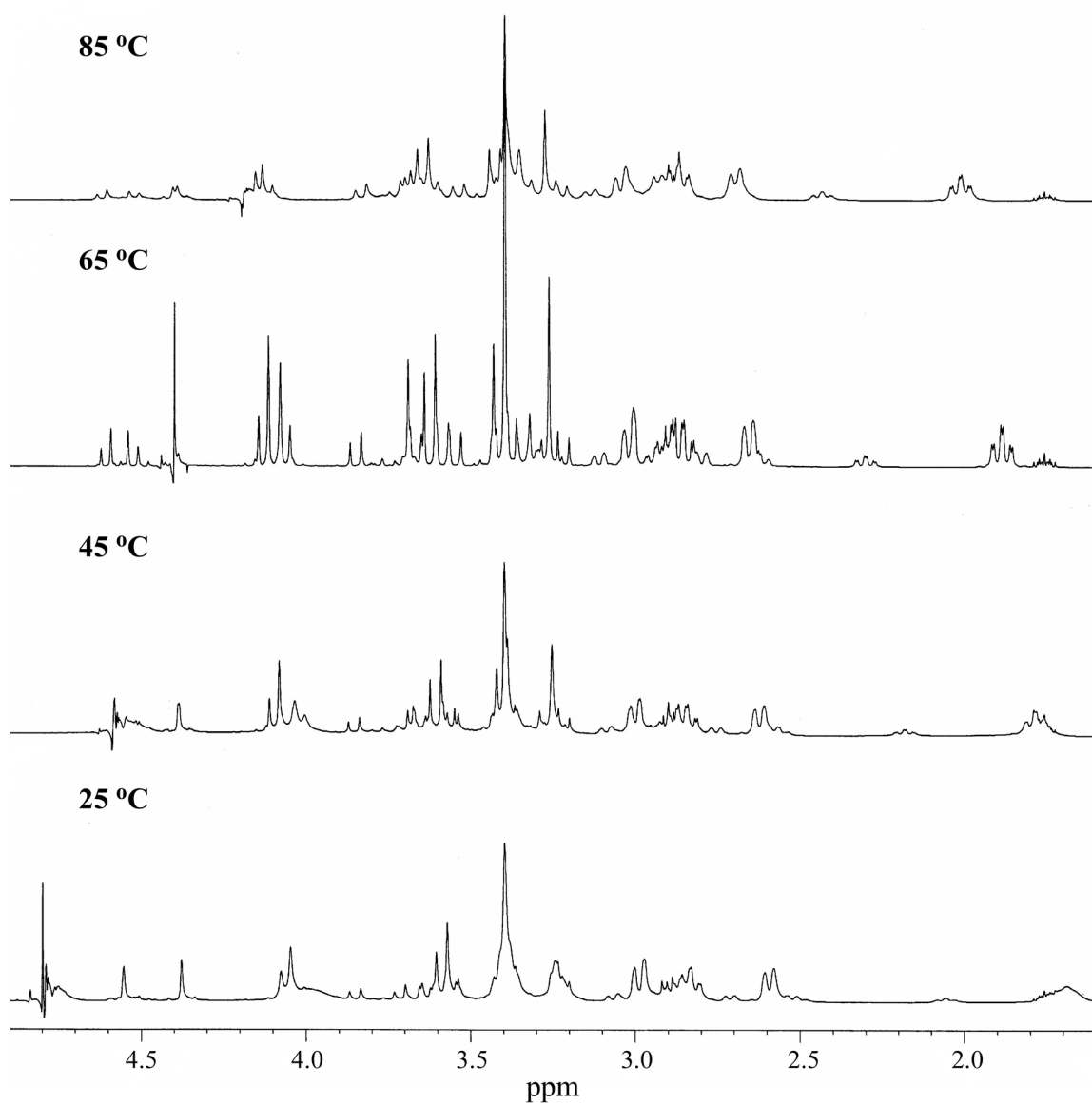


Figure SI. Variable temperature  $^1\text{H}$  NMR (500 MHz) spectra of  $\text{In}(\text{DTPA-BA}_2)$  in the aliphatic region.

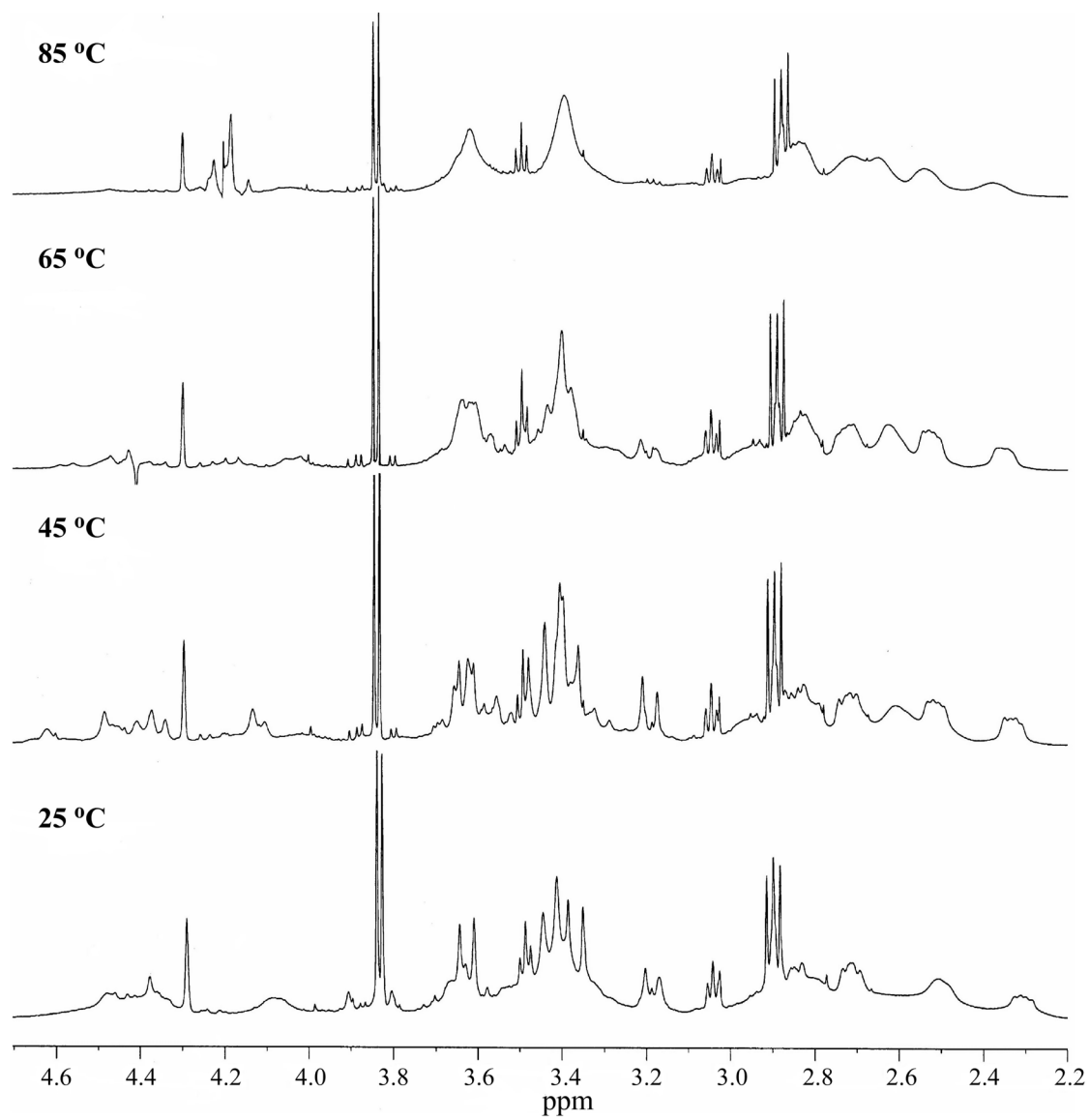


Figure SII. Variable temperature  $^1\text{H}$  NMR (500 MHz) spectra of Y(DTPA-BA<sub>2</sub>) in the aliphatic region.

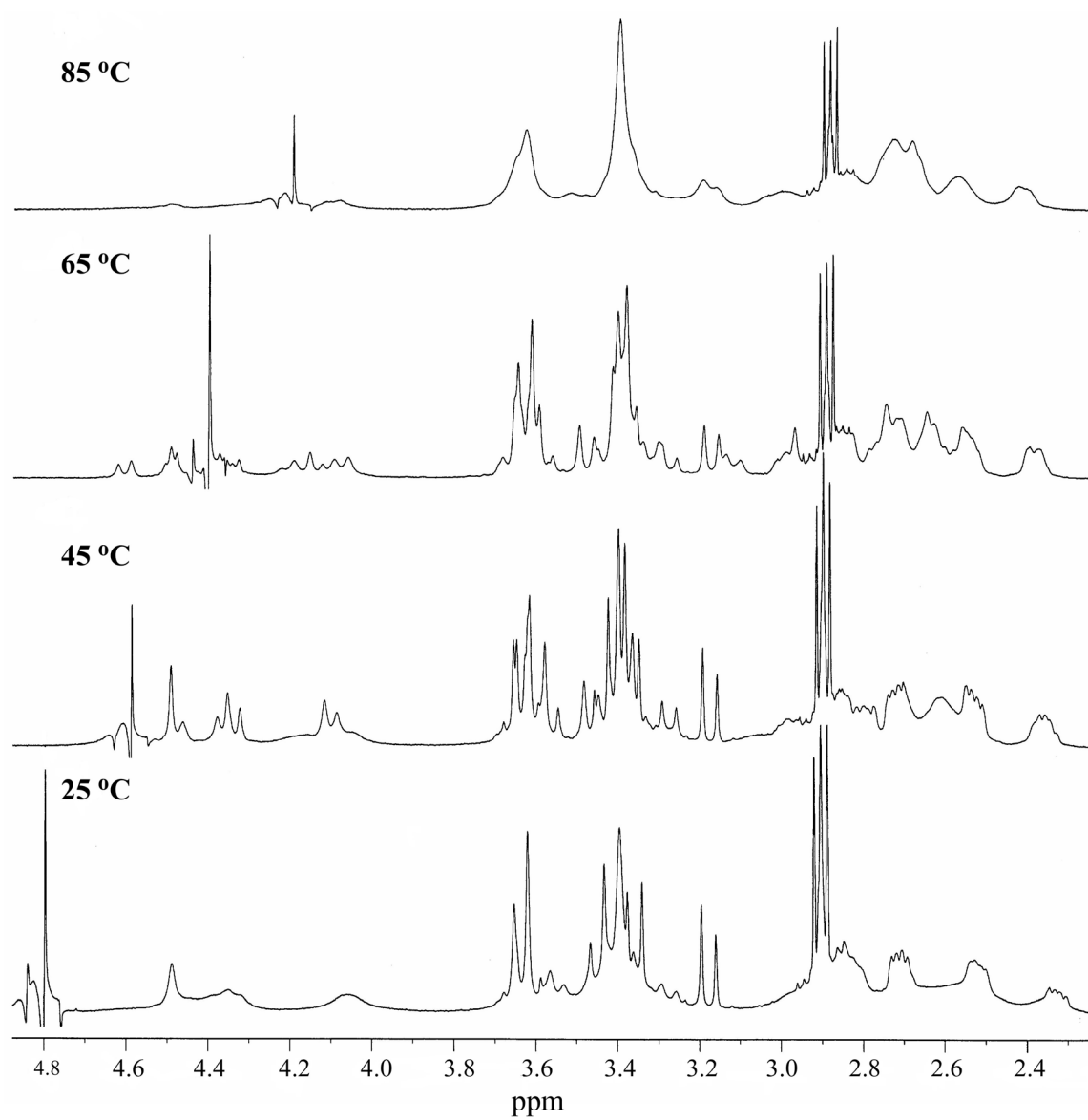


Figure SIII. Variable temperature <sup>1</sup>H NMR (500 MHz) spectra of Lu(DTPA-BA<sub>2</sub>) in the aliphatic region.