

## Supplementary Information for

### An Analysis of the Conformational Behavior and Stability of the SAP and TSAP Isomers of Lanthanide(III) NB-DOTA-type Chelates

Gyula Tircso,<sup>‡</sup> Benjamin C. Webber,<sup>†</sup> Benjamin E. Kucera,<sup>±</sup> Victor Young<sup>±</sup> and Mark  
Woods<sup>†§\*</sup>

<sup>‡</sup> Department of Inorganic and Analytical Chemistry, University of Debrecen, P.O. Box 21, Egyetem tér 1, Debrecen H-4010, Hungary.

<sup>†</sup> Department of Chemistry, Portland State University, 1719 SW 10<sup>th</sup> Avenue, Portland, OR 97201.

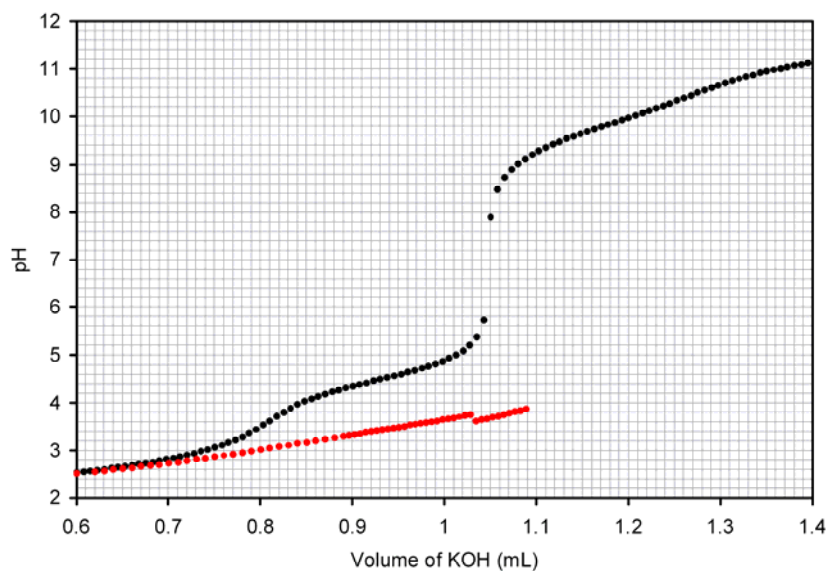
<sup>±</sup> Department of Chemistry, University of Minnesota, 207 Pleasant St. S.E., Minneapolis, MN 55455, USA.

<sup>§</sup> Advanced Imaging Research Center, Oregon Health & Science University, 3181 SW Sam Jackson Park Road, L485, Portland, OR 97239.

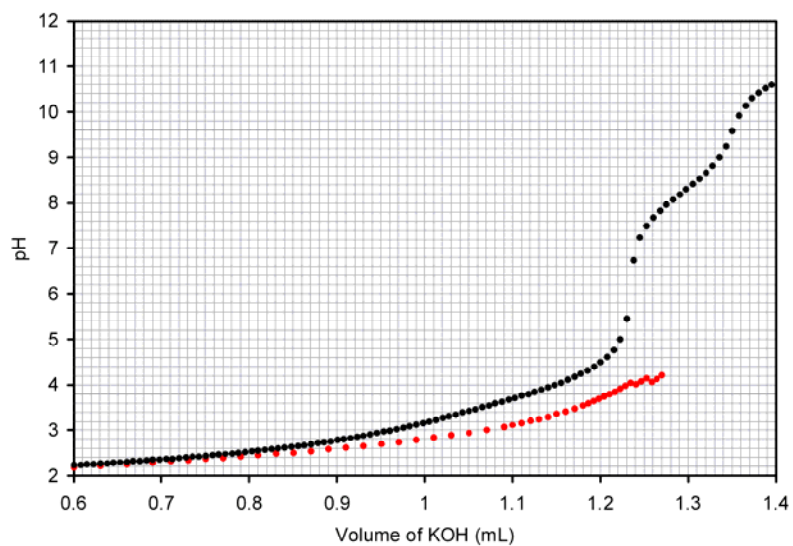
Tel: + 1 503 725 8238 or + 1 503 418 5530

E-mail: mark.woods@pdx.edu, woodsmar@ohsu.edu.

Supplementary Information for Tircso *et al.*:

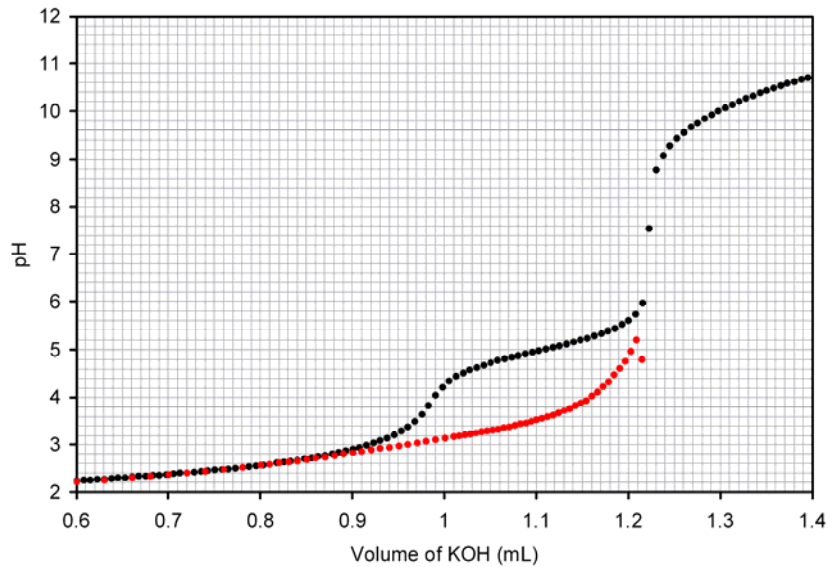


**Figure S1.** The titration curves of NB-DOTA in the absence and presence of  $Gd^{3+}$ , to determine the stability constant of the  $H_2GdL^+$  intermediate.

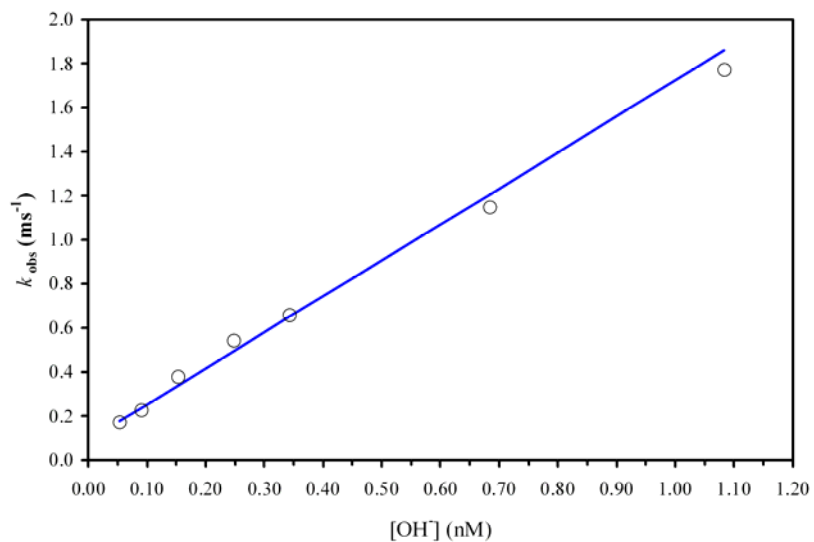


**Figure S2.** The titration curves of *S-RRRR*-NB-DOTMA in the absence and presence of  $Gd^{3+}$ , to determine the stability constant of the  $H_2GdL^+$  intermediate.

Supplementary Information for Tircso *et al.*:

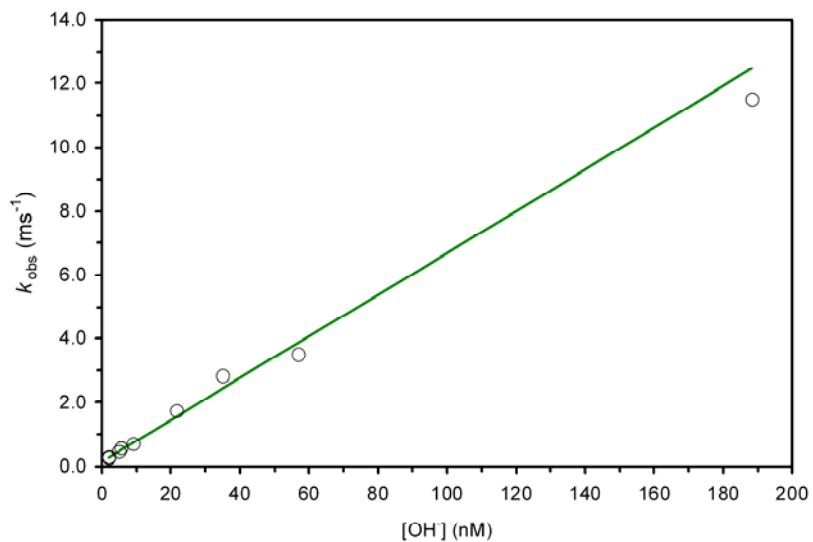


**Figure S3.** The titration curves of *S*-SSS-1 in the absence and presence of  $Gd^{3+}$ , to determine the stability constant of the  $H_2GdL^+$  intermediate.

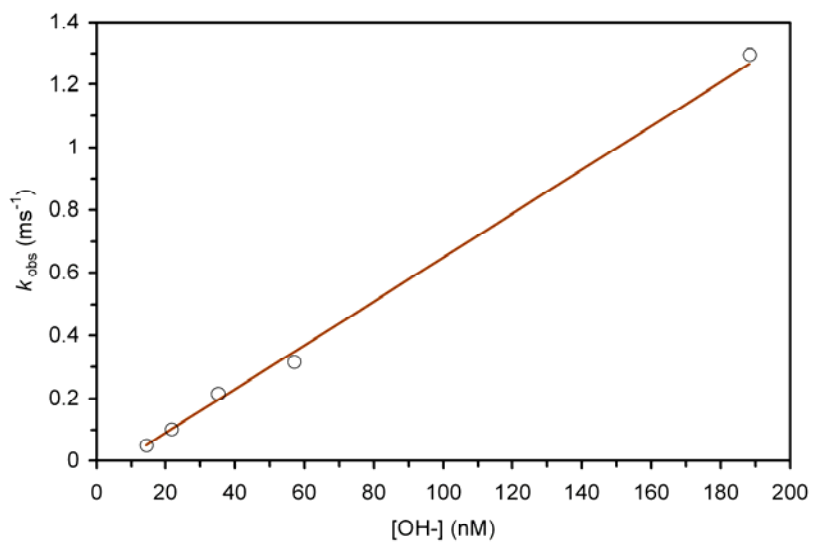


**Figure S4.** A plot of  $k_{obs}$  (the observation pseudo first order rate constant of chelate formation) against hydroxide concentration for GdNB-DOTA.

Supplementary Information for Tircso *et al.*:



**Figure S5.** A plot of  $k_{\text{obs}}$  (the observation pseudo first order rate constant of chelate formation) against hydroxide concentration for GdS-RRRR-NB-DOTMA.



**Figure S6.** A plot of  $k_{\text{obs}}$  (the observation pseudo first order rate constant of chelate formation) against hydroxide concentration for GdS-SSS-1.