10.1071/CH15249_AC

Australian Journal of Chemistry 2015, 68(11), 1735-1740

Supplementary Material

Photohysical Properties of Rare Earth Diclofenac Complexes in the Solid State

Gina Kaup,[A] *Marina M. Lezhnina,*[A] *Denise Meiners,*[A,B] *Peter C. Junk,*[B,C] *Ulrich H. Kynast*[A,C]

[A] Muenster University of Applied Sciences, Department of Chemical Engineering, Stegerwaldsr. 39, 48565 Steinfurt, Germany

[B] James Cook University, College of Science, Technology & Engineering, Townsville, Qld, 4811, Australia

[C] Corresponding authors. Email: peter.junk@jcu.edu.au; uk@fh-muenster.de

4 Figures (Fig. S1-S4)

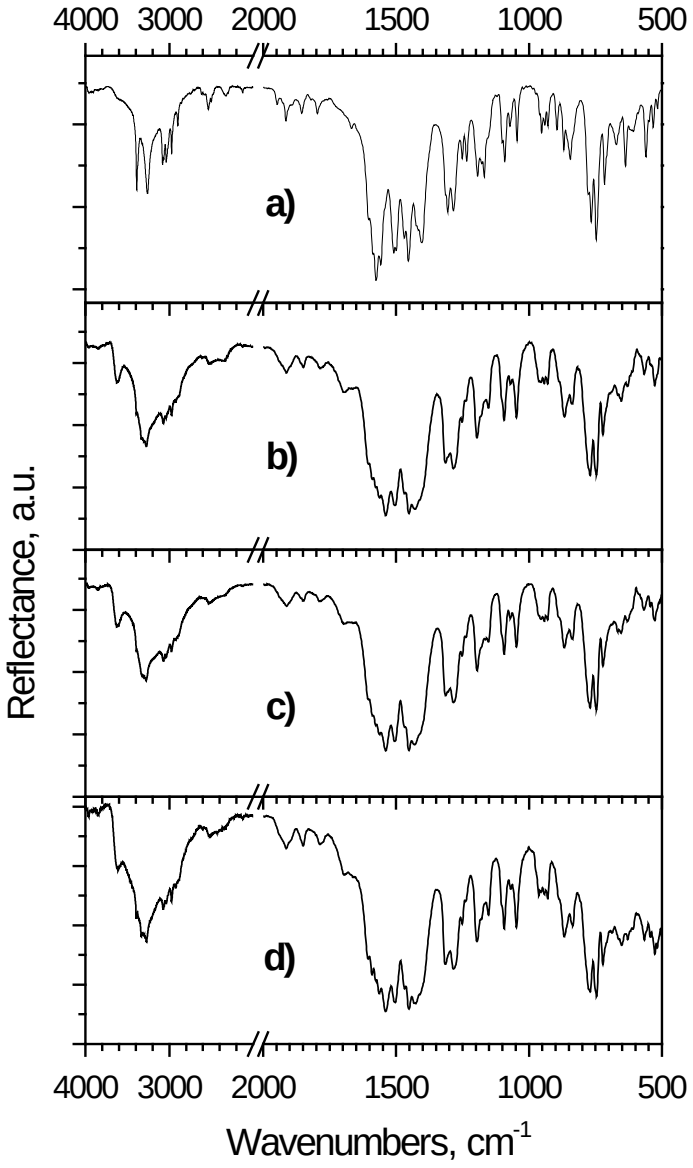

Fig. S1. FTIR spectra of a) Na(diclo), b) $Eu(diclo)_3$, b) $Tb(diclo)_3$, b) $Gd(diclo)_3$.

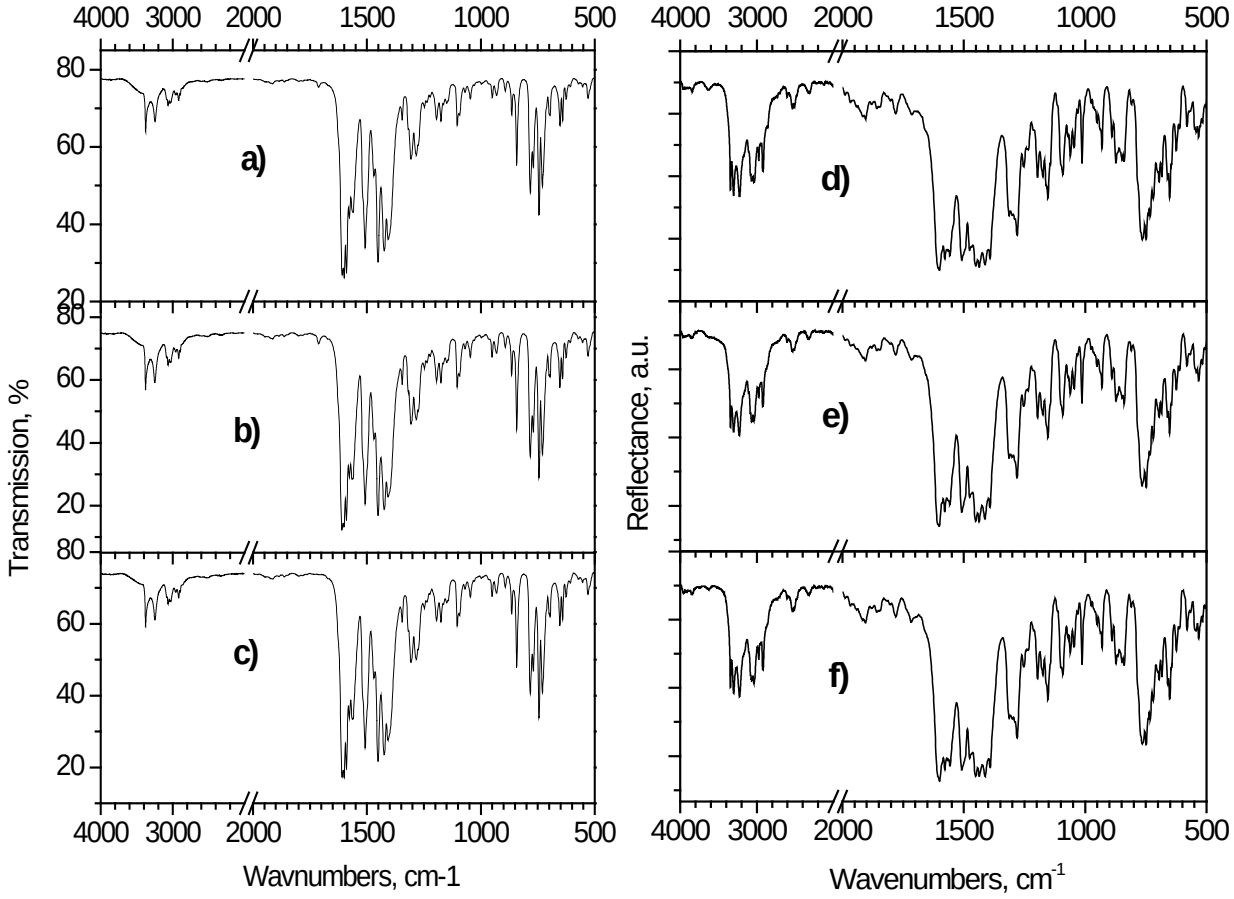

Fig. S2. FTIR spectra of a) Eu(diclo)$_3$phen, b) Tb(diclo)$_3$phen, c) Gd(diclo)$_3$phen, d) Eu(diclo)$_3$bipy, e) Tb(diclo)$_3$bipy, f) Gd(diclo)$_3$bipy.

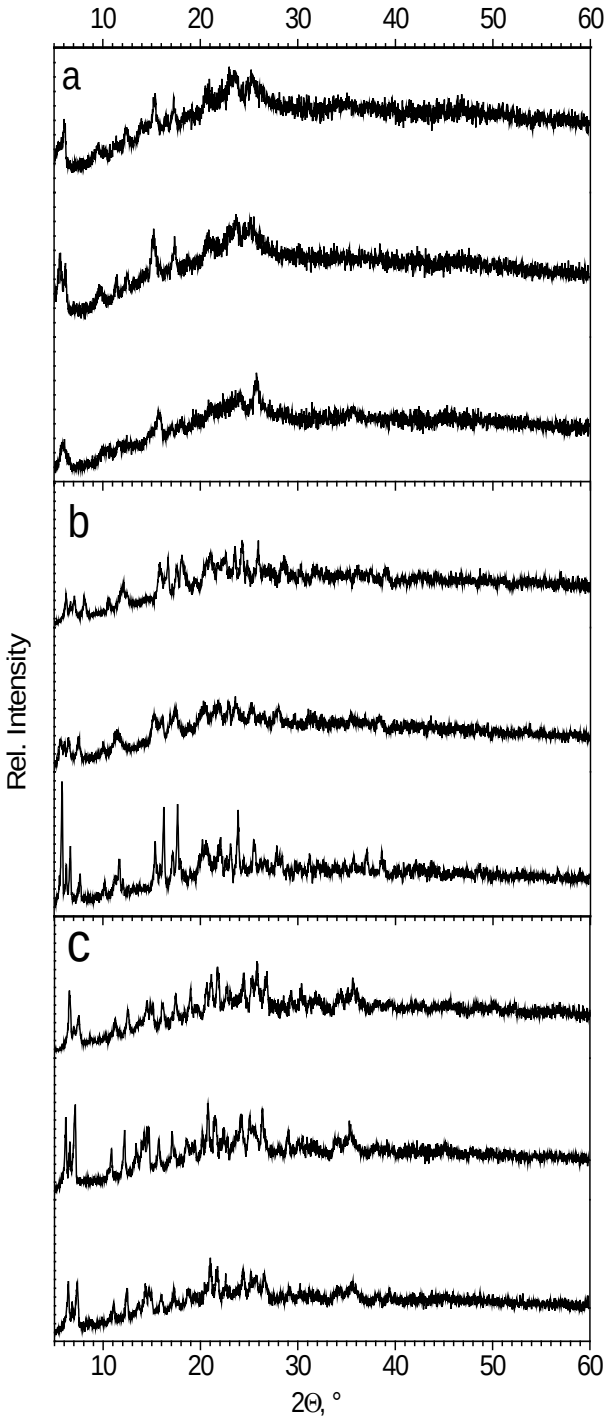

Fig. S3. X-ray powder diffraction of **a)** $Eu(diclo)_3$(top), $Tb(diclo)_3$ (center), $Gd(diclo)_3$ (bottom); **b)** $Eu(diclo)_3phen$, $Tb(diclo)_3phen$, $Gd(diclo)_3phen$; **c)** $Eu(diclo)_3bipy$, $Tb(diclo)_3bipy$, $Gd(diclo)_3bipy$.

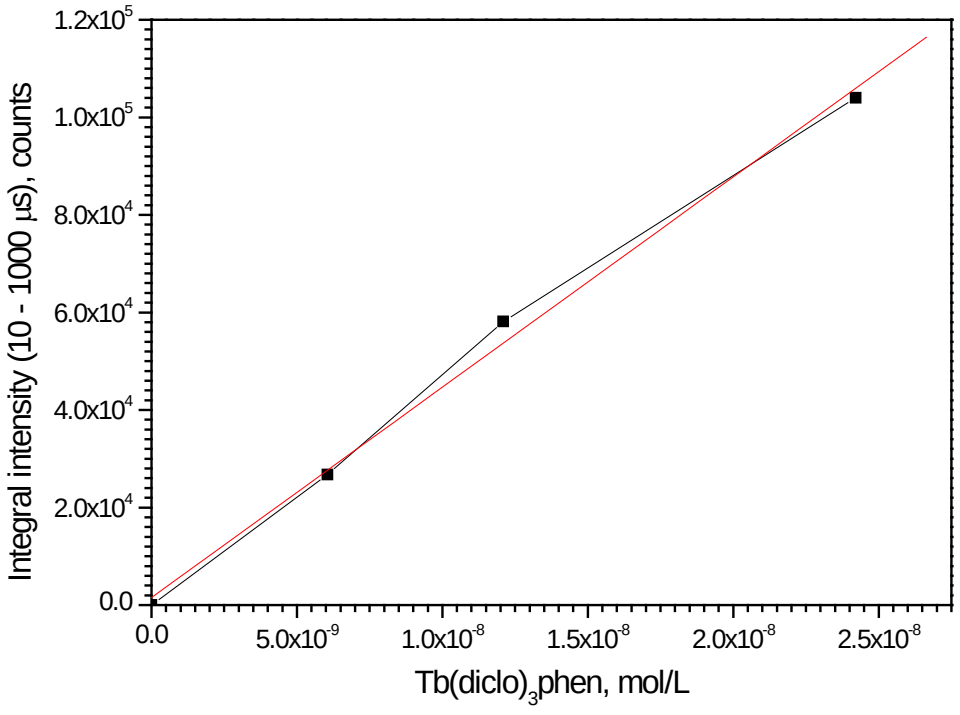

Fig. S4. Linear range for time integrated luminescence determination of $Tb(diclo)_3phen$, measurements in ethanol. Beyond ca. 2.5×10-8 mol/L, agglomerates and ultimately nanoparticles form, which lead to a lower emission increase in this experimental setup (Perkin-Elmer Victor IV), standard plate reader and vials).