

Electronic Supplementary Information (ESI):

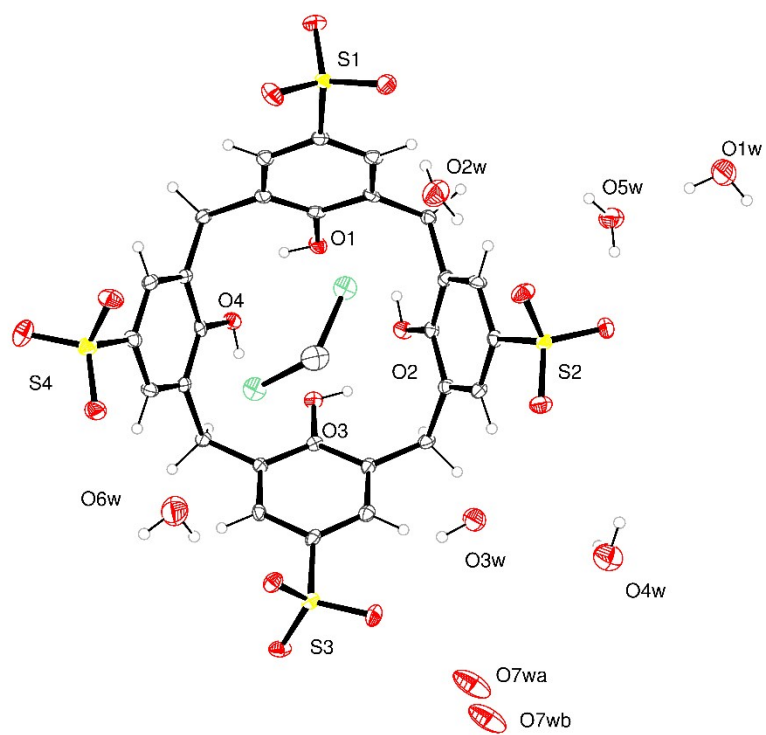
## Synthesis, Structures and Cytotoxicity Studies of p-Sulfonatocalix[4]arene Lanthanide Complexes

David M. Miller-Shakesby<sup>a</sup>, Benjamin P. Burke<sup>a</sup>, Shubhanchi Nigam<sup>a</sup>, Graeme J. Stasiuk<sup>b</sup>, Timothy J. Prior<sup>a</sup>, Stephen J. Archibald<sup>a,b,\*</sup> and Carl Redshaw<sup>a\*</sup>

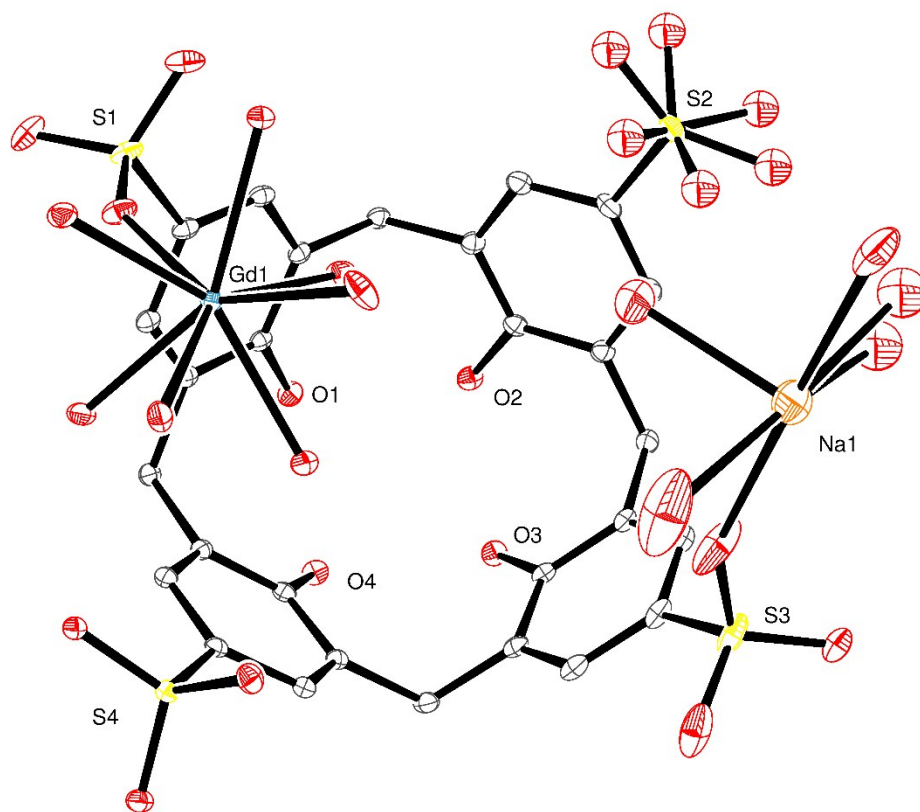
### Table of Contents

Asymmetric unit structure of <b>SC4A</b> .....	<b>Fig. S1</b>
Asymmetric unit structure of <b>(2)</b> .....	<b>Fig. S2</b>
Luminescence decays curves of <b>(6)</b> and <b>(10)</b> .....	<b>Fig. S3-S4</b>
Emission spectrum of <b>SC4A</b> .....	<b>Fig. S5</b>
Excitation spectra of <b>(1)</b> , <b>(6)</b> , and <b>(10)</b> .....	<b>Fig. S6-S8</b>

X-ray structures



**Fig. S1** Asymmetric unit of **SC4A**. Atoms are drawn as 30 % probability ellipsoids. Selected atoms are labelled. (A single orientation of the disordered dichloromethane is shown.)



**Fig. S2** The asymmetric unit of the **(2)** (unbound water omitted for clarity) with atoms drawn as 30 % probability ellipsoids.

Luminescence studies

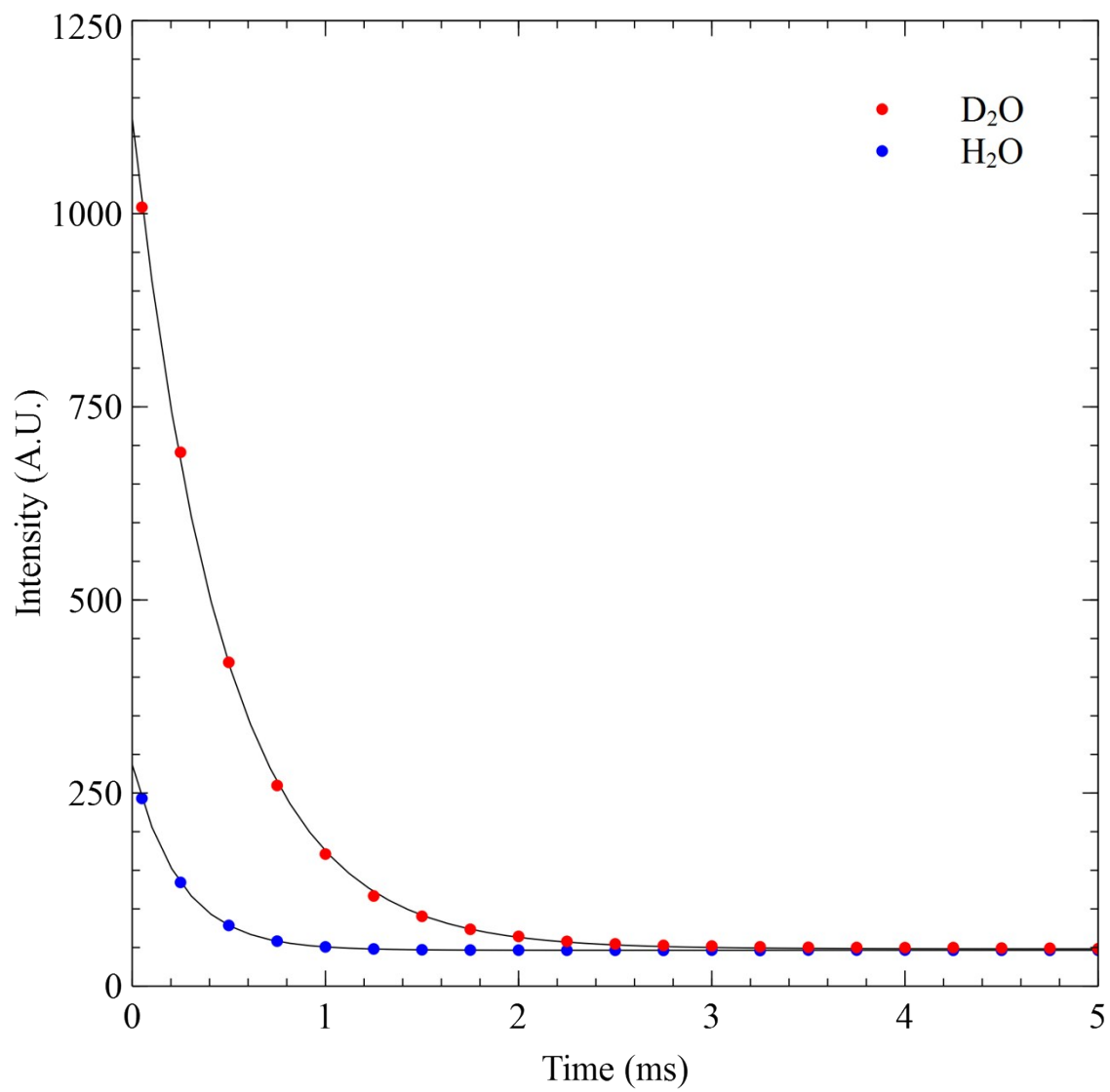


Fig. S3 The luminescence decay curves for (6)

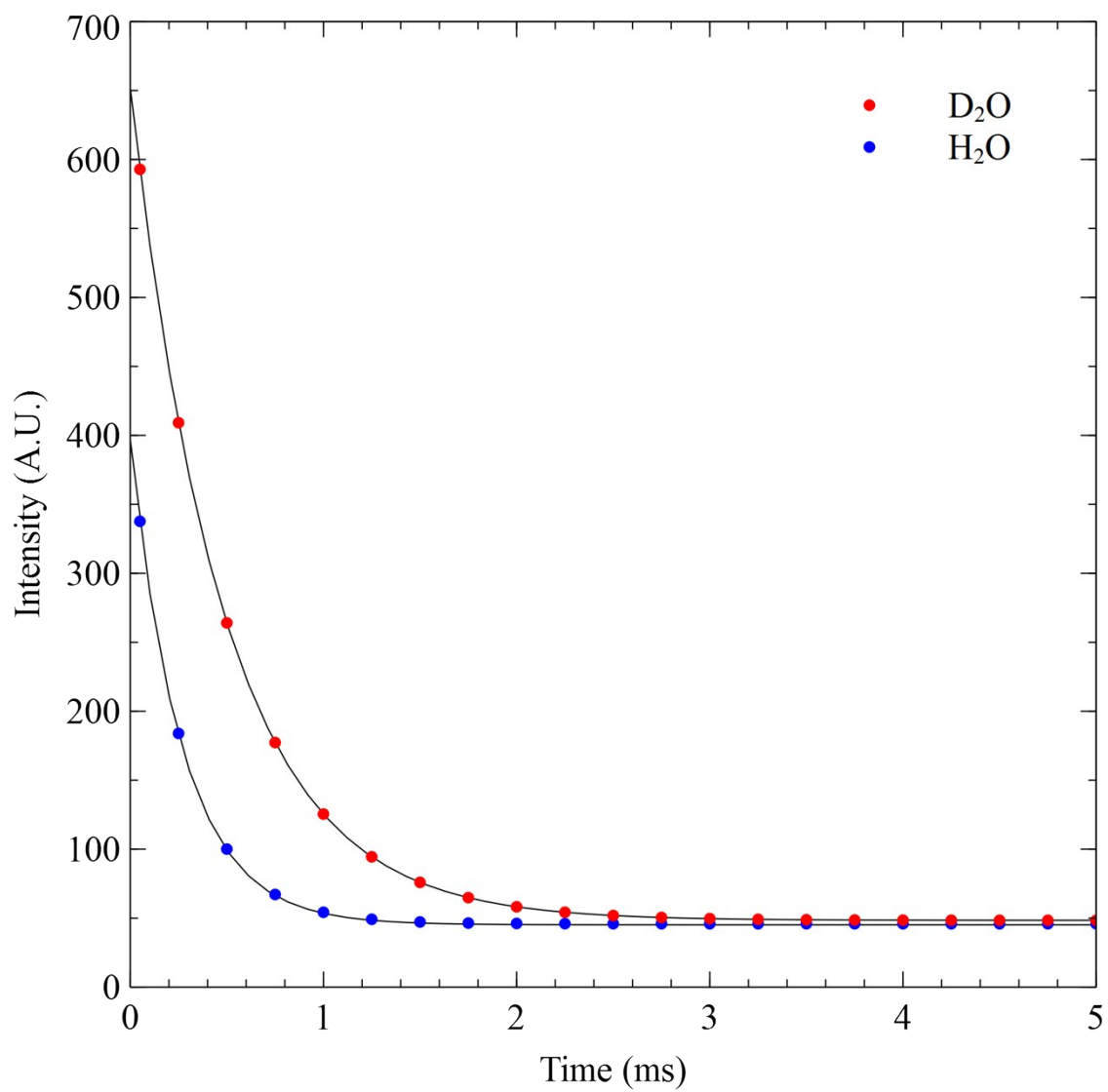
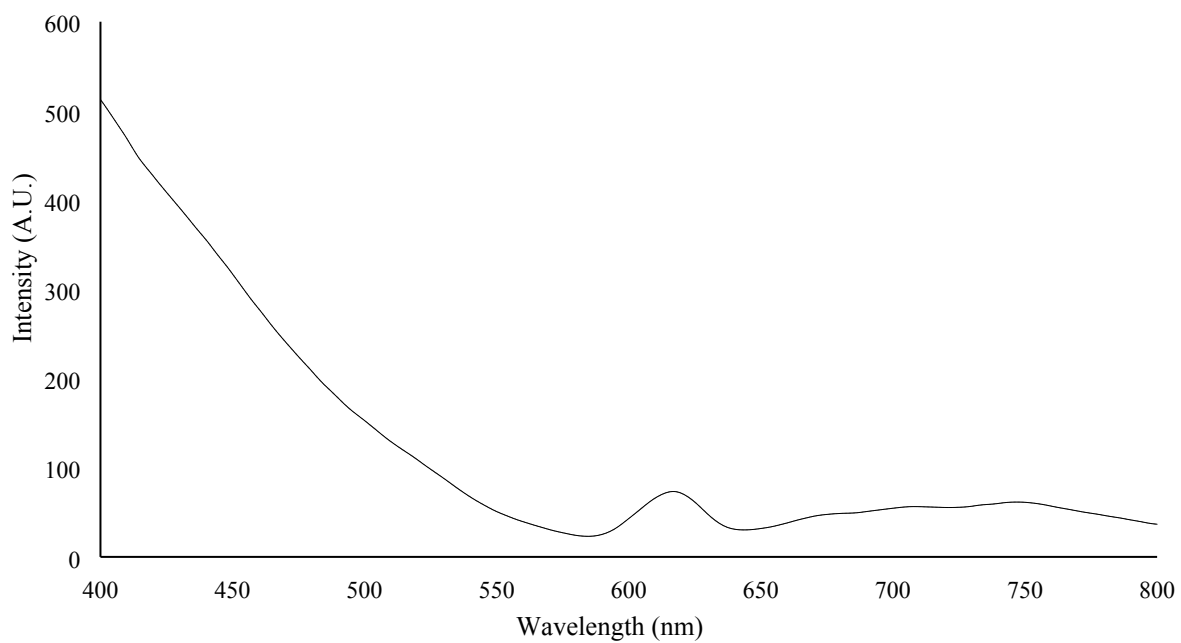
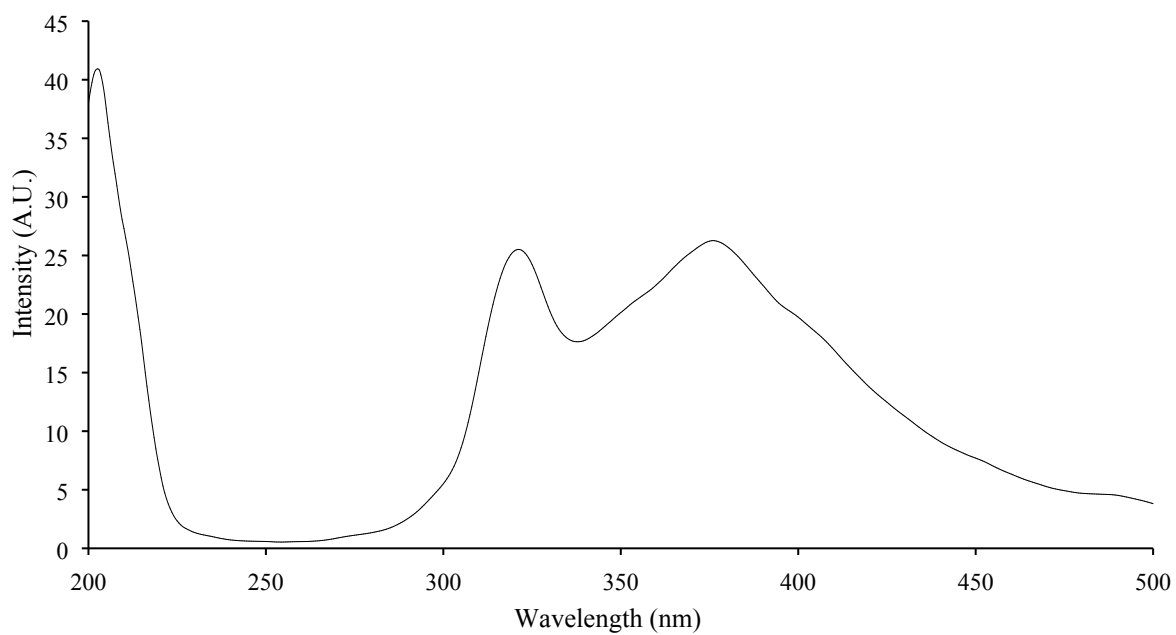


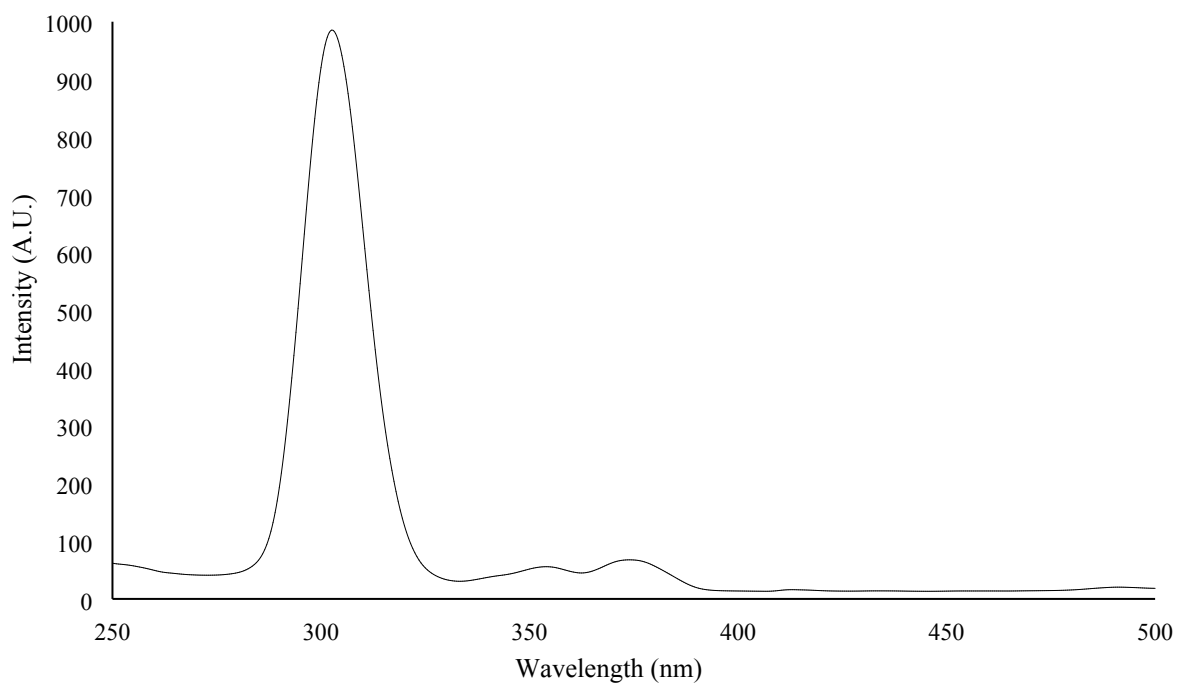
Fig. S4 The luminescence decay curves for (10)



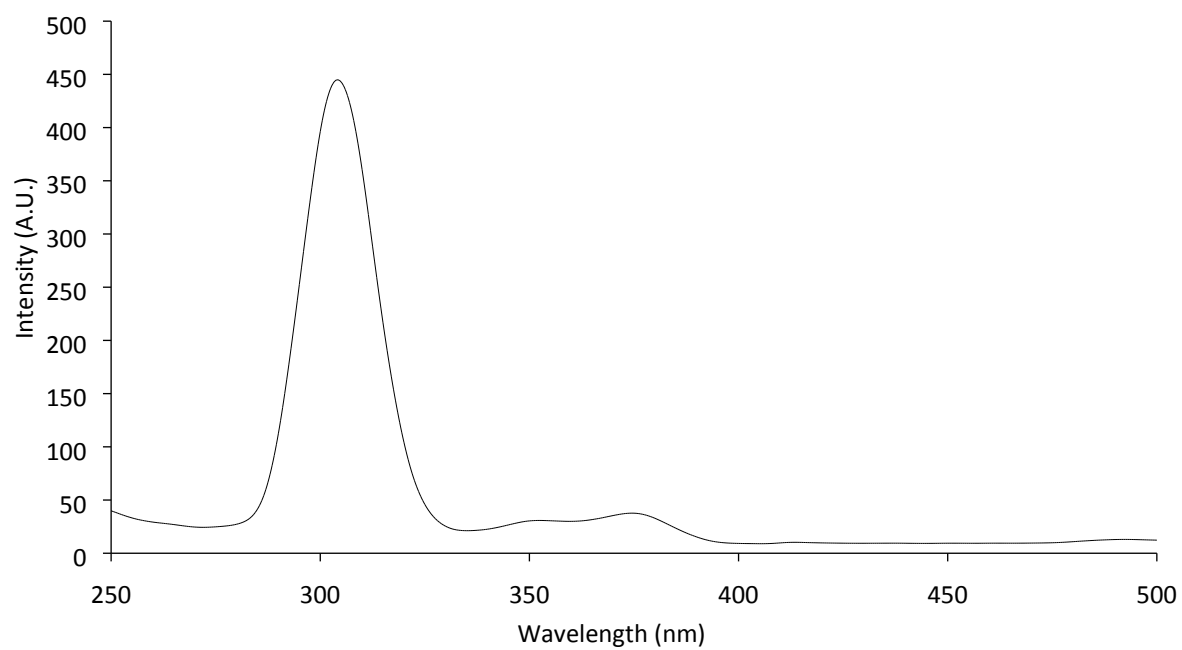
**Fig. S5** The emission spectrum of **SC4A**



**Fig. S6** The excitation spectrum of **(1)**



**Fig. S7** The excitation spectrum of **(6)**



**Fig. S8** The excitation spectrum of **(10)**