

## Molecules

### Aluminium 8-hydroxyquinolate *N*-oxide as a precursor to heterometallic aluminium-lanthanide complexes

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## Supplementary Information

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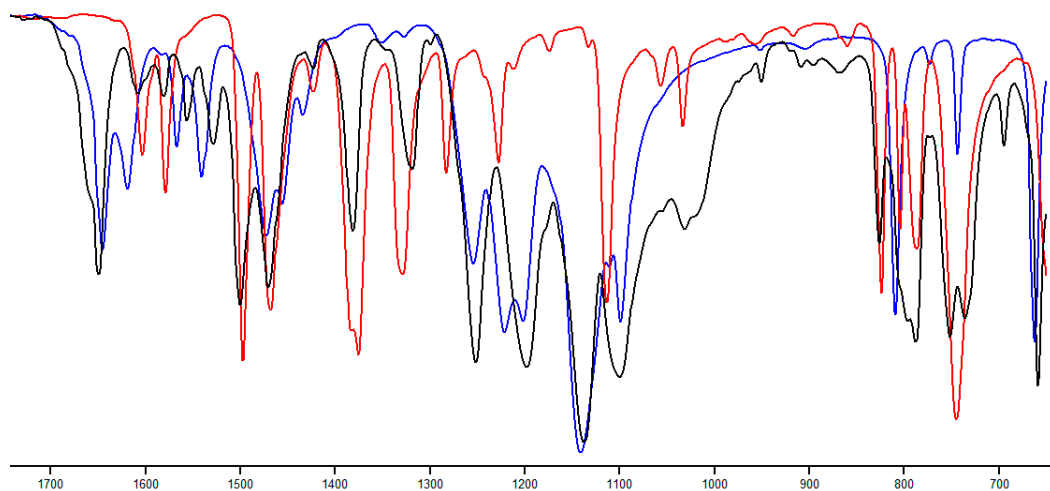
**Figure S2:** ATR-IR spectrum of 8-hydroxyquinoline *N*-oxide (HqNO)

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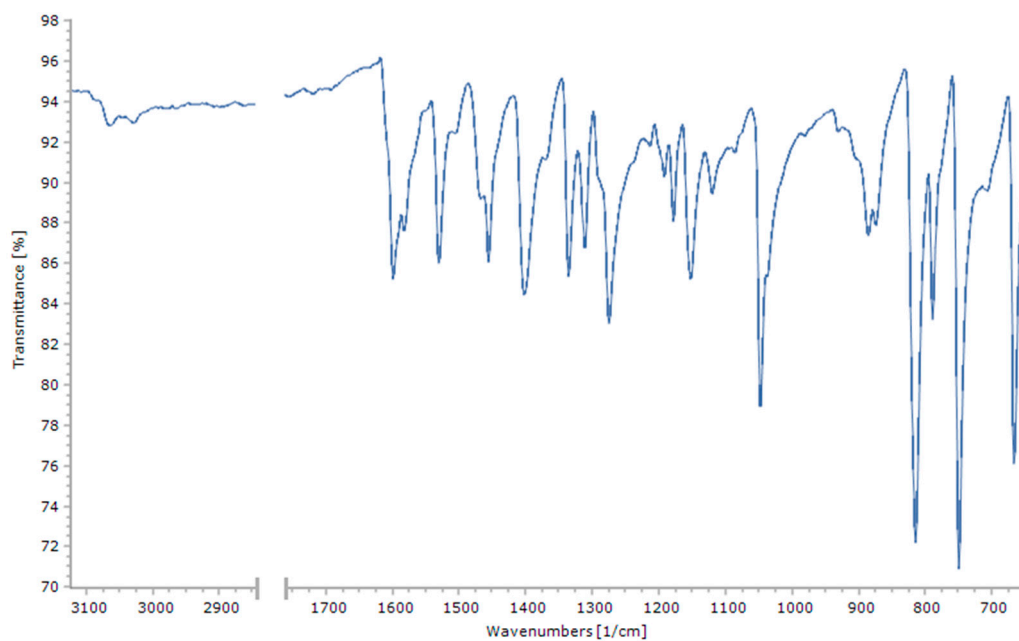
**Figure S4:**  $^1\text{H}$  NMR of 8-hydroxyquinoline *N*-oxide (HqNO) in  $\text{CDCl}_3$

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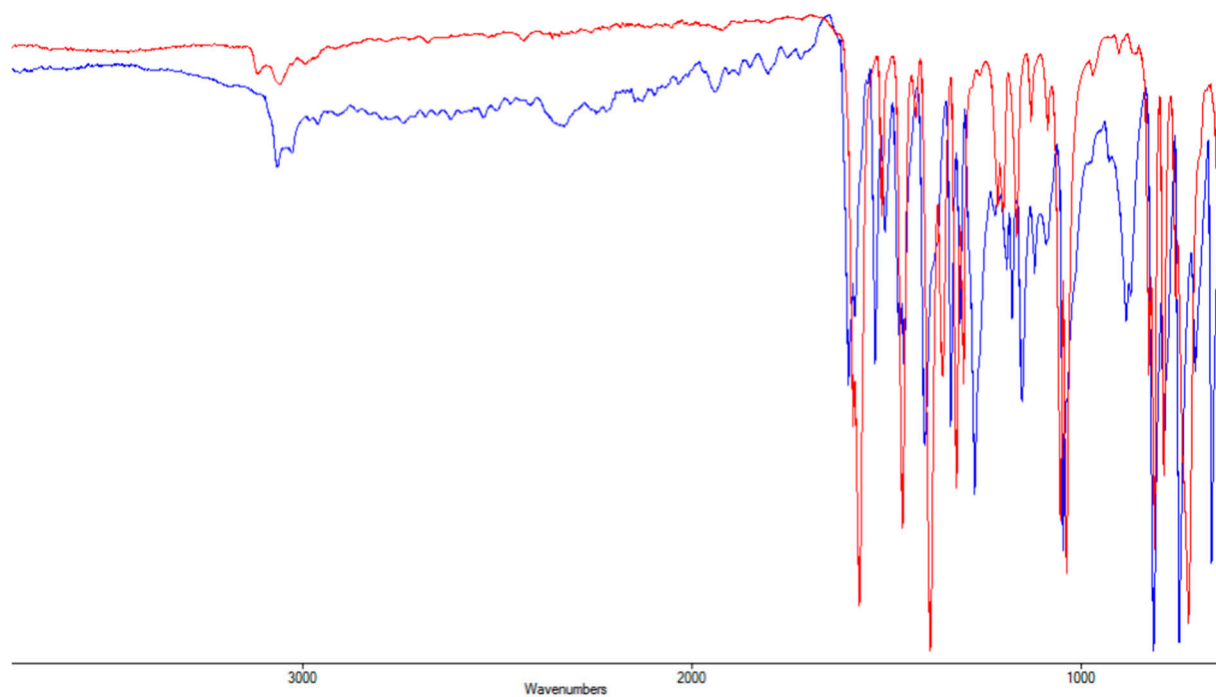
**Figure S6:** ATR-IR spectra (1700-650  $\text{cm}^{-1}$ ) of  $[\text{Eu}(\text{hfac})_3\text{Al}(\text{qNO})_3]$  (black), of  $[\text{Al}(\text{qNO})_3]$  (red) and  $[\text{HqNO}]$  (blue)



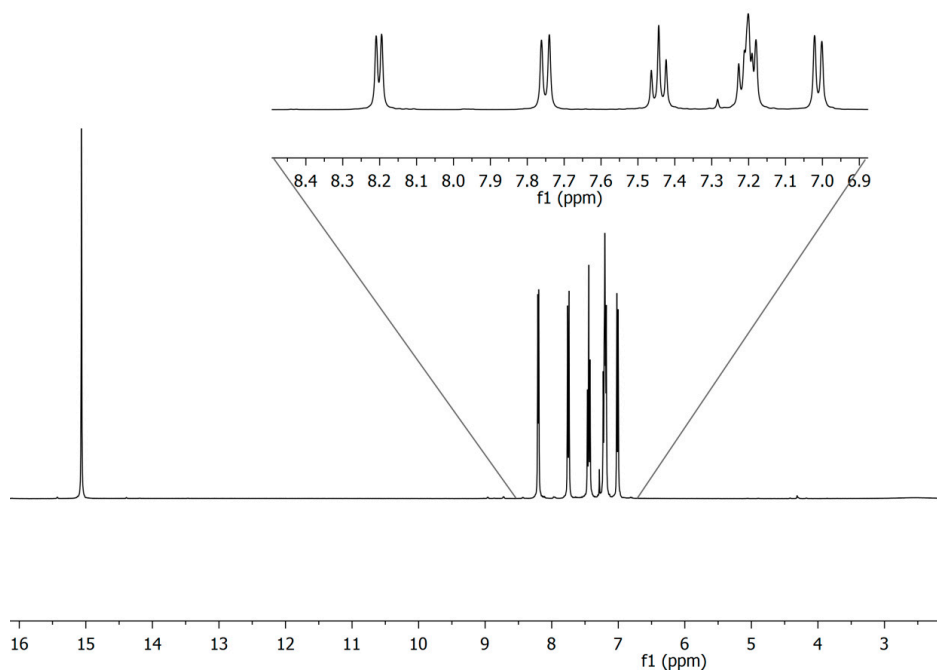
**Figure S1:** ATR-IR spectra (range 1700-650 cm<sup>-1</sup>) of [Eu(hfac)<sub>3</sub>Alq<sub>3</sub>] (black), [Alq<sub>3</sub>] (red) and [Eu(hfac)<sub>3</sub>(H<sub>2</sub>O)<sub>2</sub>] (blue).



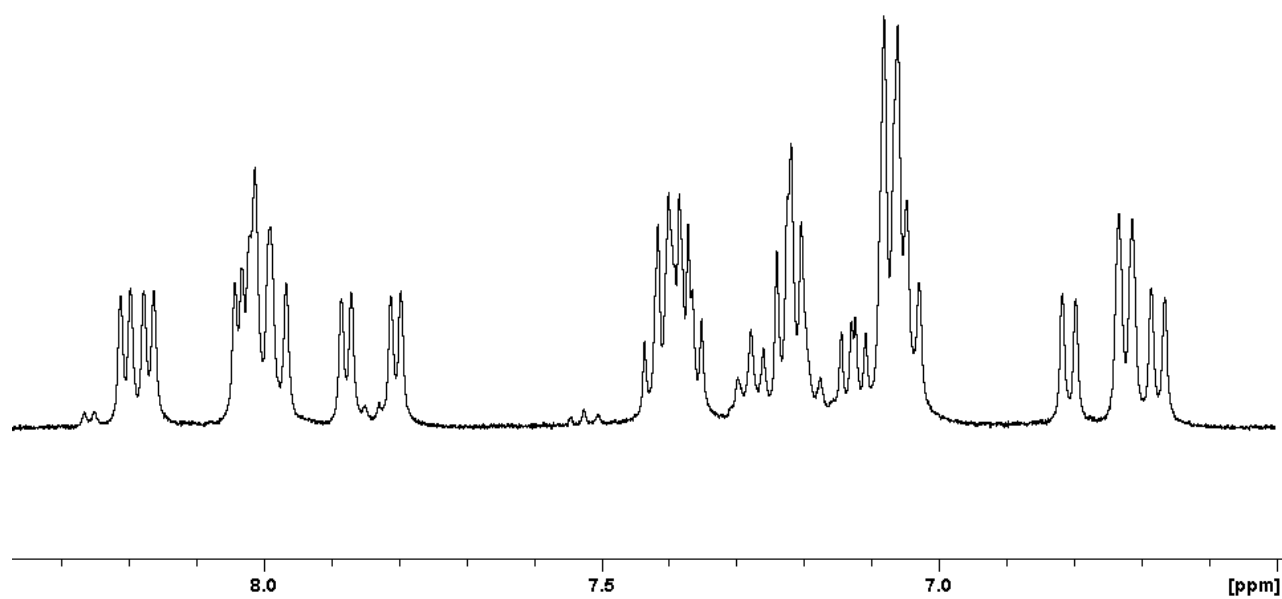
**Figure S2:** ATR-IR spectrum of 8-hydroxyquinoline *N*-oxide (HqNO).



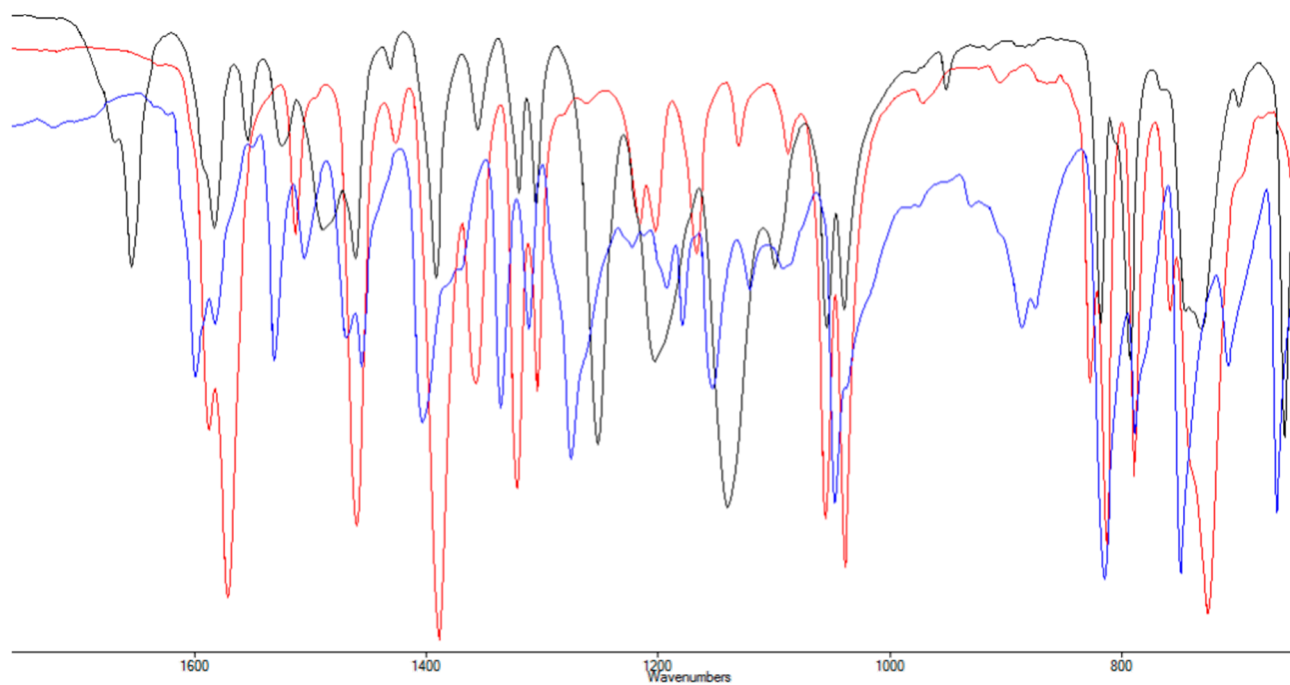
**Figure S3:** ATR-IR spectrum of [Al(qNO)<sub>3</sub>] (red) compared with [HqNO] (blue).



**Figure S4:** <sup>1</sup>H NMR of 8-hydroxyquinoline *N*-oxide (HqNO) in CDCl<sub>3</sub>.



**Figure S5:**  $^1\text{H}$  NMR spectrum of  $[\text{Al}(\text{qNO})_3]$  in anhydrous  $\text{CD}_2\text{Cl}_2$ .



**Figure S6:** ATR-IR spectra ( $1700\text{--}650\text{ cm}^{-1}$ ) of  $[\text{Eu}(\text{hfac})_3\text{Al}(\text{qNO})_3]$  (black), of  $[\text{Al}(\text{qNO})_3]$  (red) and  $[\text{HqNO}]$  (blue).