

## Article

# Surface Functionalised Optical Fibre for Detection of Hydrogen Sulphide

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## <sup>1</sup>H NMR and <sup>13</sup>C NMR of Compounds

Figures S1 to S8 represent <sup>1</sup>H NMR and <sup>13</sup>C NMR data of compounds 1, 2, 4 and 5.

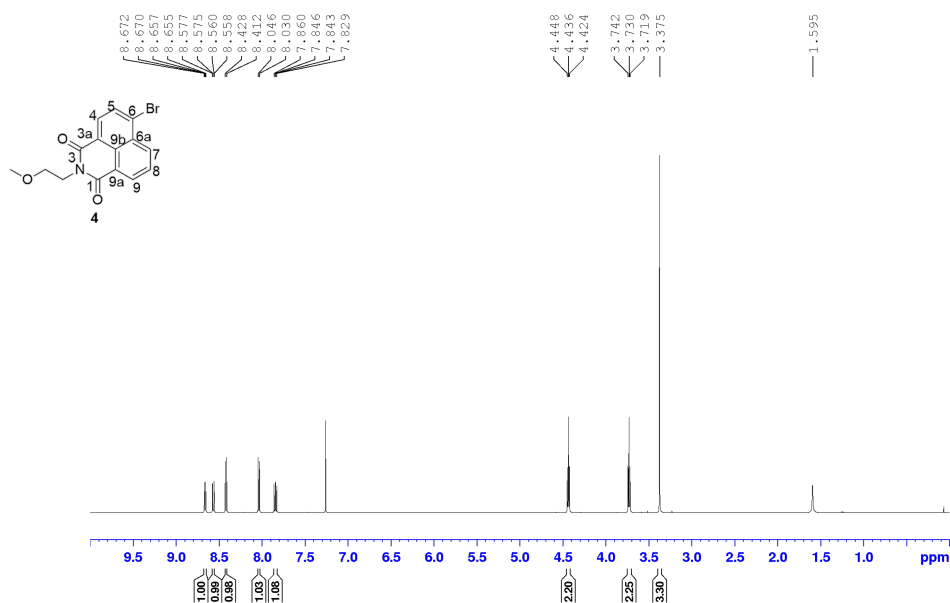


Figure S1. <sup>1</sup>H NMR (500 MHz) spectra of 4 in CDCl<sub>3</sub>.

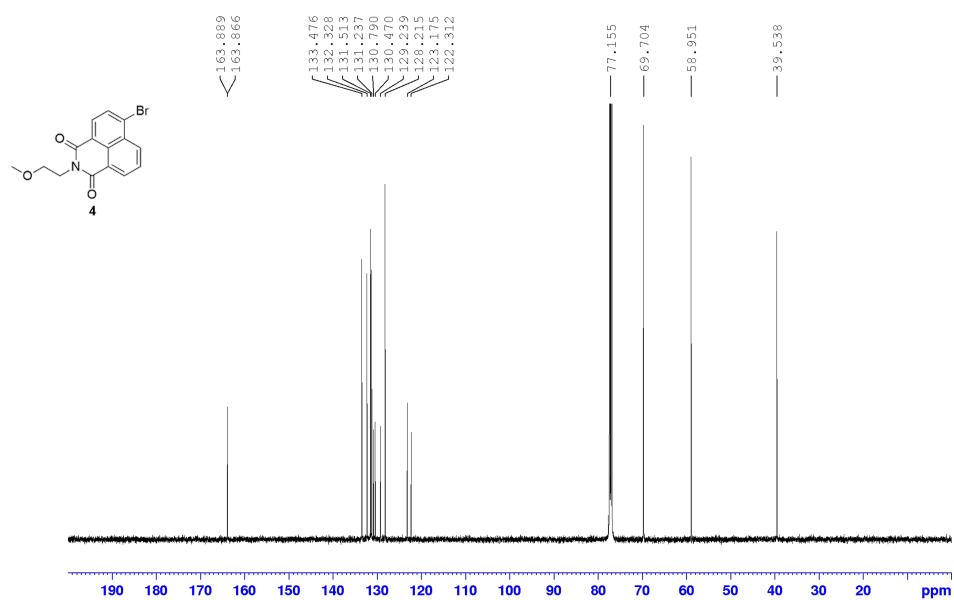


Figure S2.  $^{13}\text{C}$  NMR (125 MHz) spectra of **4** in  $\text{CDCl}_3$ .

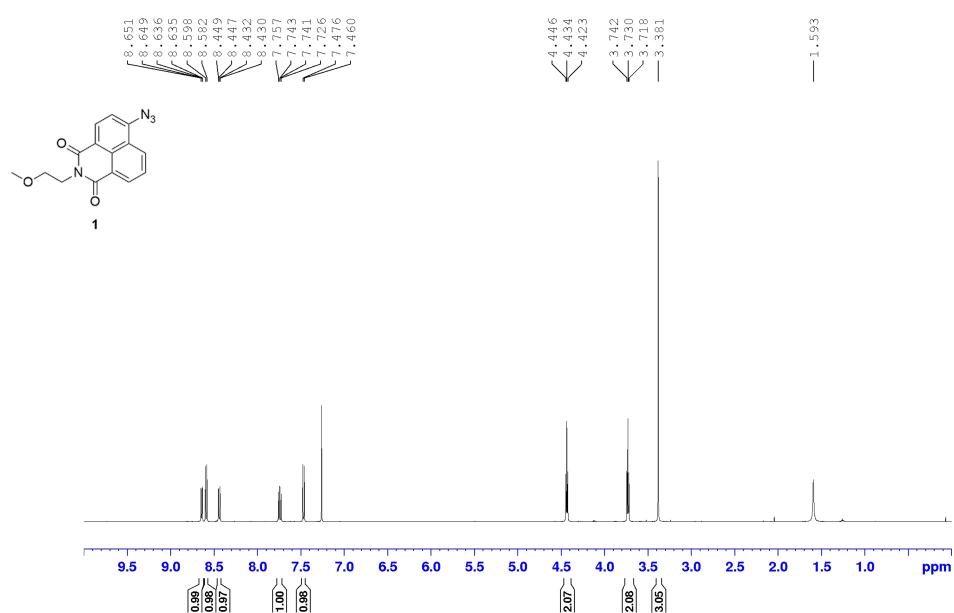


Figure S3.  $^1\text{H}$  NMR (500 MHz) spectra of **1** in  $\text{CDCl}_3$ .

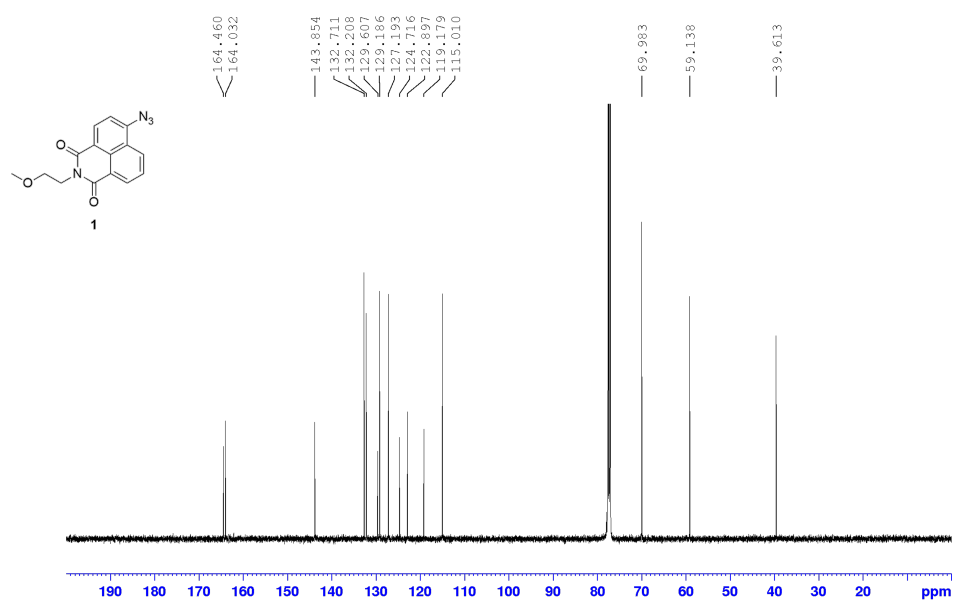


Figure S4. <sup>13</sup>C NMR (125 MHz) spectra of **1** in CDCl<sub>3</sub>.

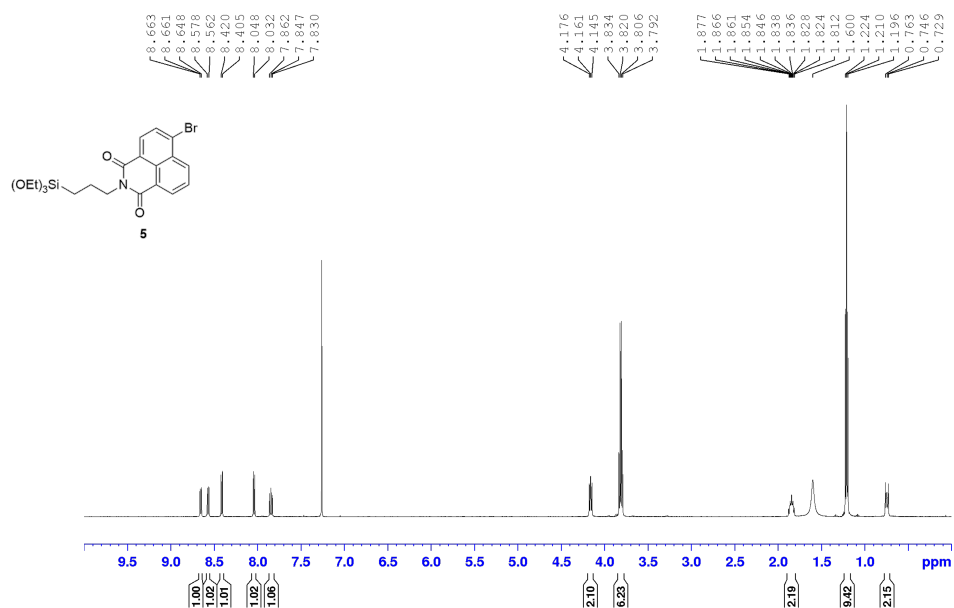


Figure S5. <sup>1</sup>H NMR (500 MHz) spectra of **5** in CDCl<sub>3</sub>.

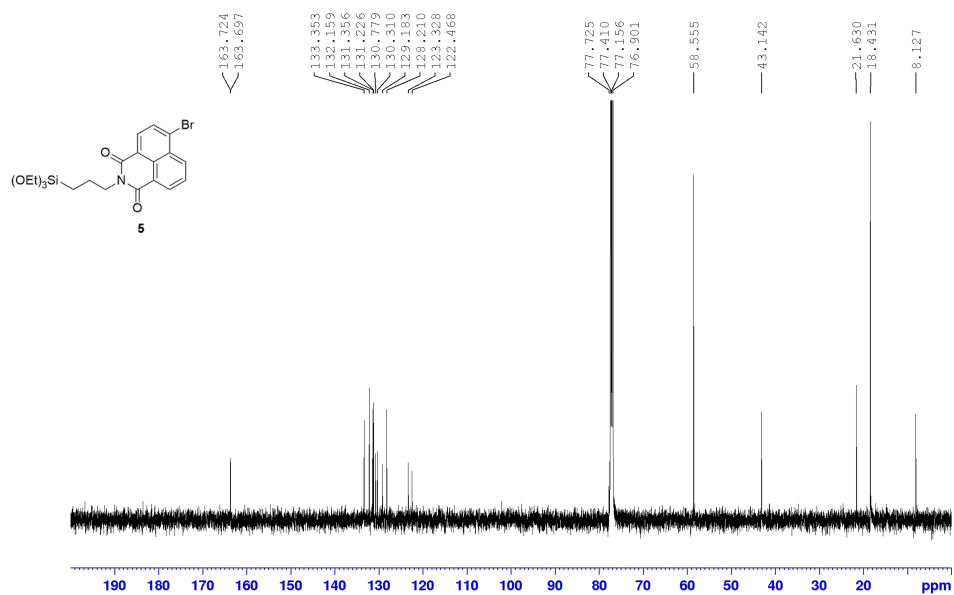


Figure S6. <sup>13</sup>C NMR (125 MHz) spectra of **5** in CDCl<sub>3</sub>.

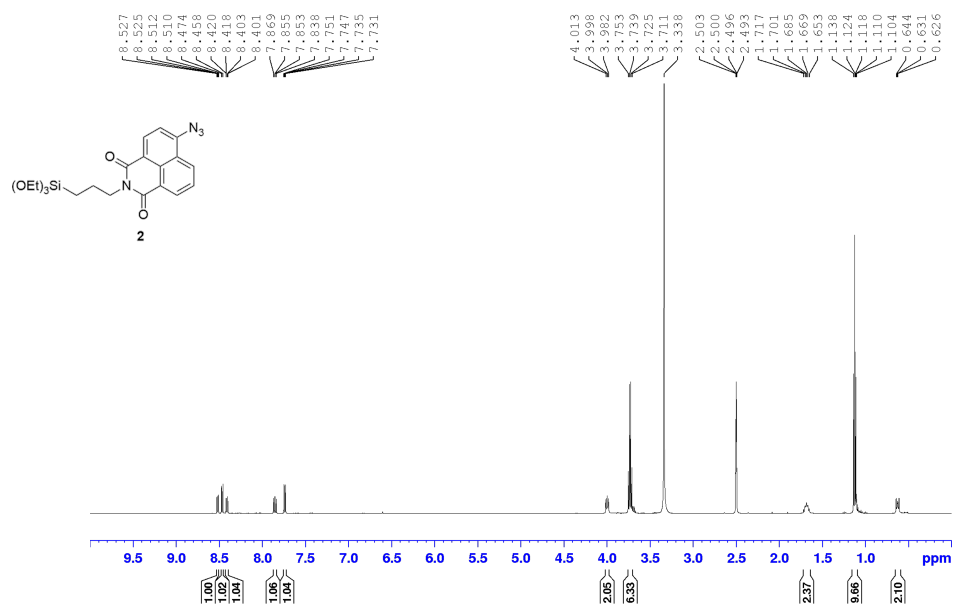


Figure S7. <sup>1</sup>H NMR (500 MHz) spectra of **2** in DMSO-*d*<sub>6</sub>.

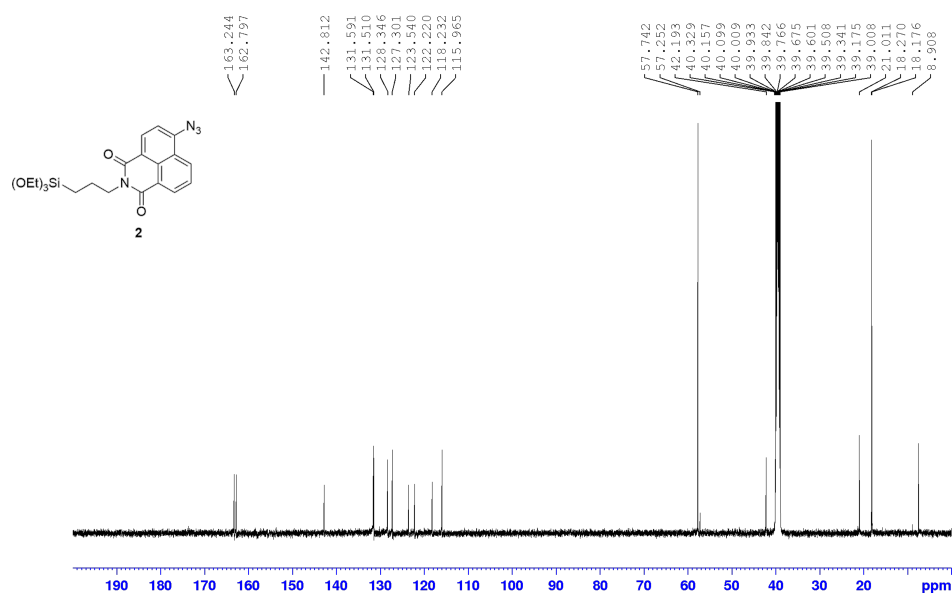


Figure S8.  $^{13}\text{C}$  NMR (125MHz) spectra of **2** in in  $\text{DMSO-}d_6$ .

### Coating setup

Figure S9 shows the coating solution tube with optical fibres inside. A septa with needle was used to cap the tube. The tube was placed on a heater for  $70^\circ\text{C}$ .

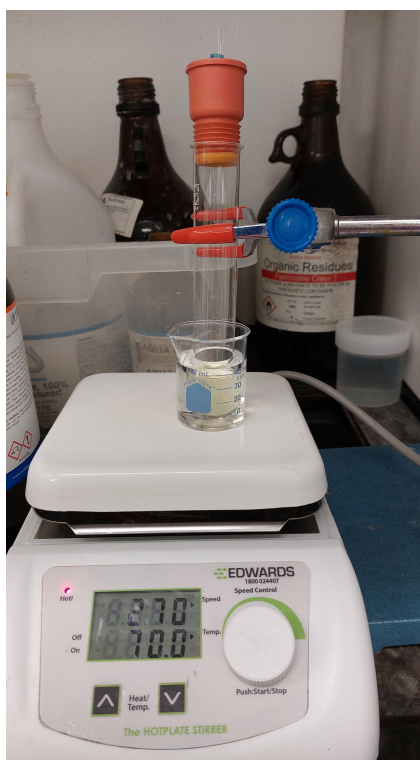
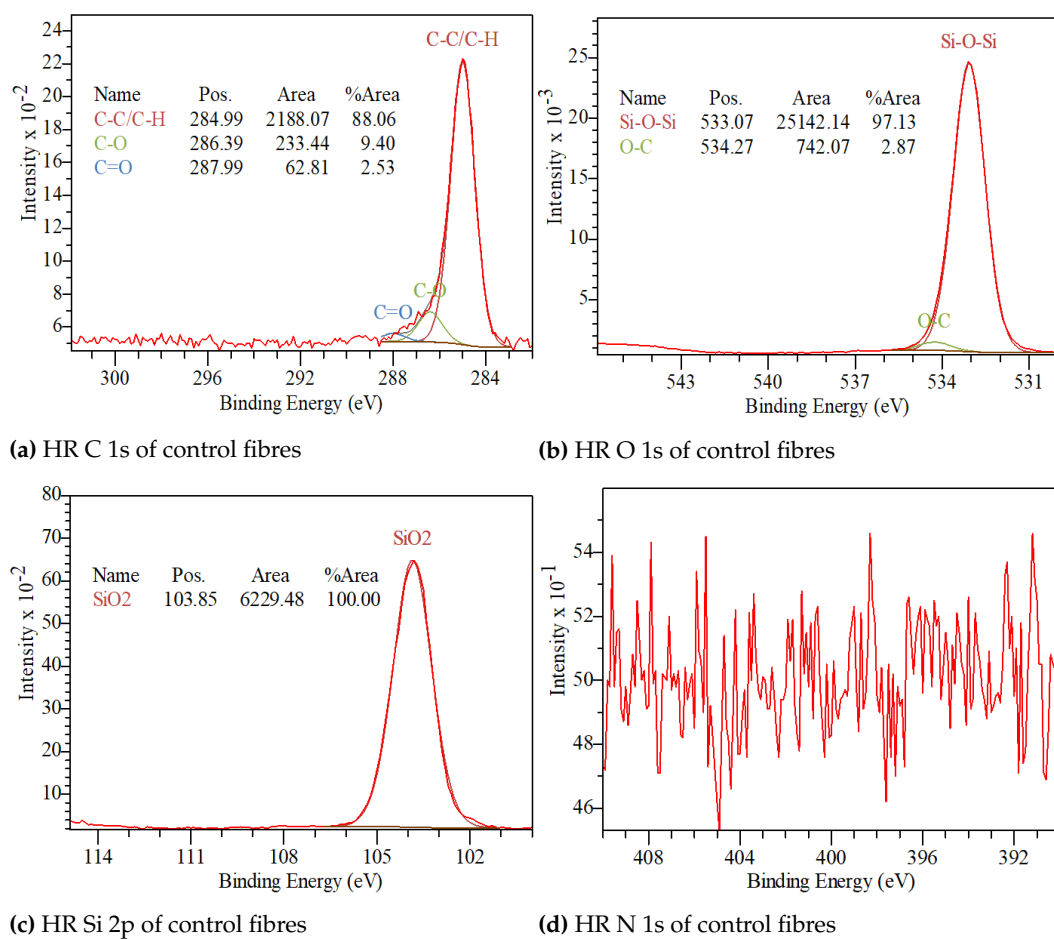


Figure S9. Coating setup. A glass tube containing the coating solution with optical fibres.

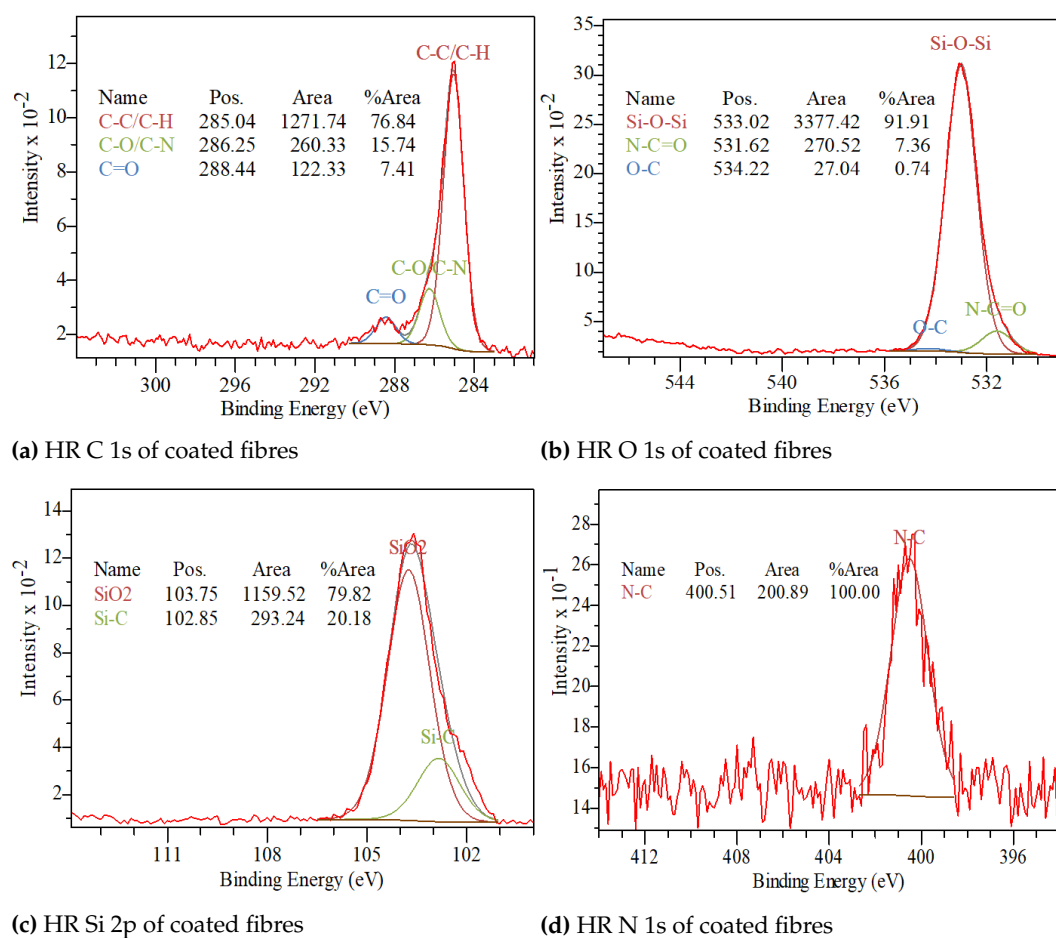
### HR XP Spectra of C 1s, O 1s, Si 2p and N 1s of Control and Coated Fibres

Figure S10 presents the high-resolution spectra of C 1s, O 1s, Si 2p, and N 1s for control optical fibers.



**Figure S10.** High resolution spectra of C 1s, O 1s, Si 2p and N 1s of control fibres.

Figure S11 presents the high-resolution spectra of C 1s, O 1s, Si 2p, and N 1s for coated optical fibers.



**Figure S11.** High resolution spectra of C 1s, O 1s, Si 2p and N 1s of coated fibres.