

## Supplementary Material

Figure 6. Light emission profiles of theophylline conjugate **2a** in the absence and in the presence of various surfactants.

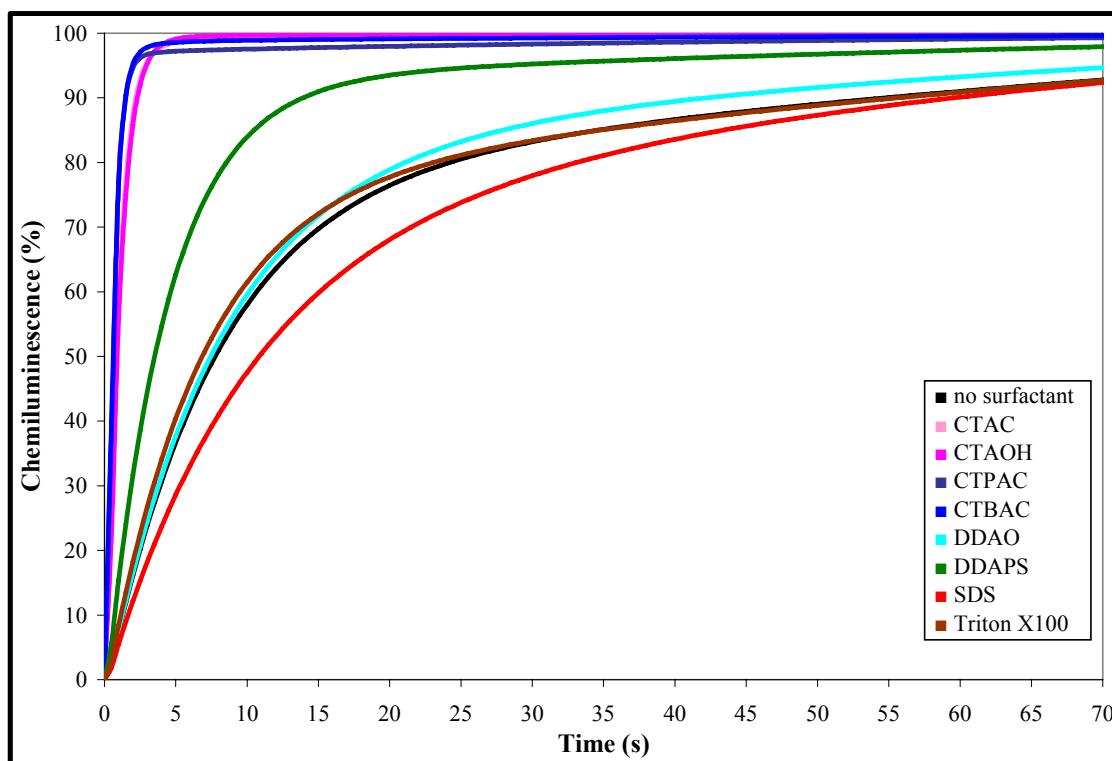




Figure 8. Light emission profiles of anti-TSH antibody conjugate of **3a** in the absence and in the presence of various surfactants.

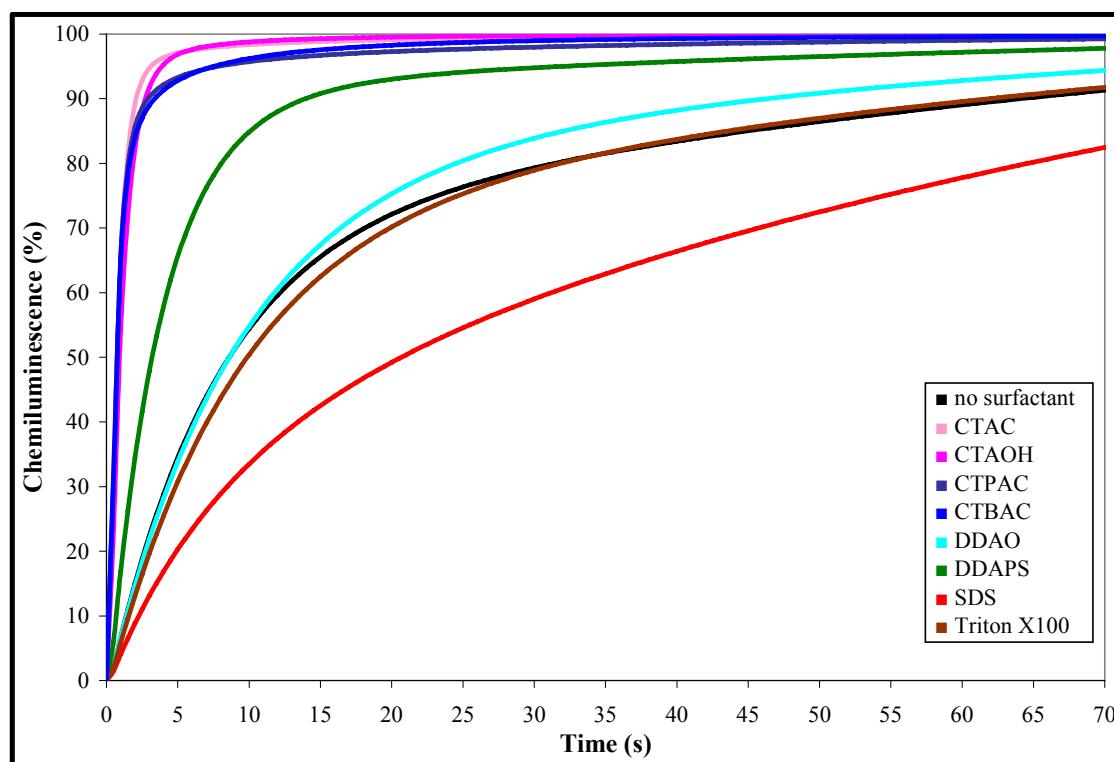


Figure 9. Light emission profiles of anti-HBsAg antibody conjugate of **3a** in the absence and in the presence of various surfactants.

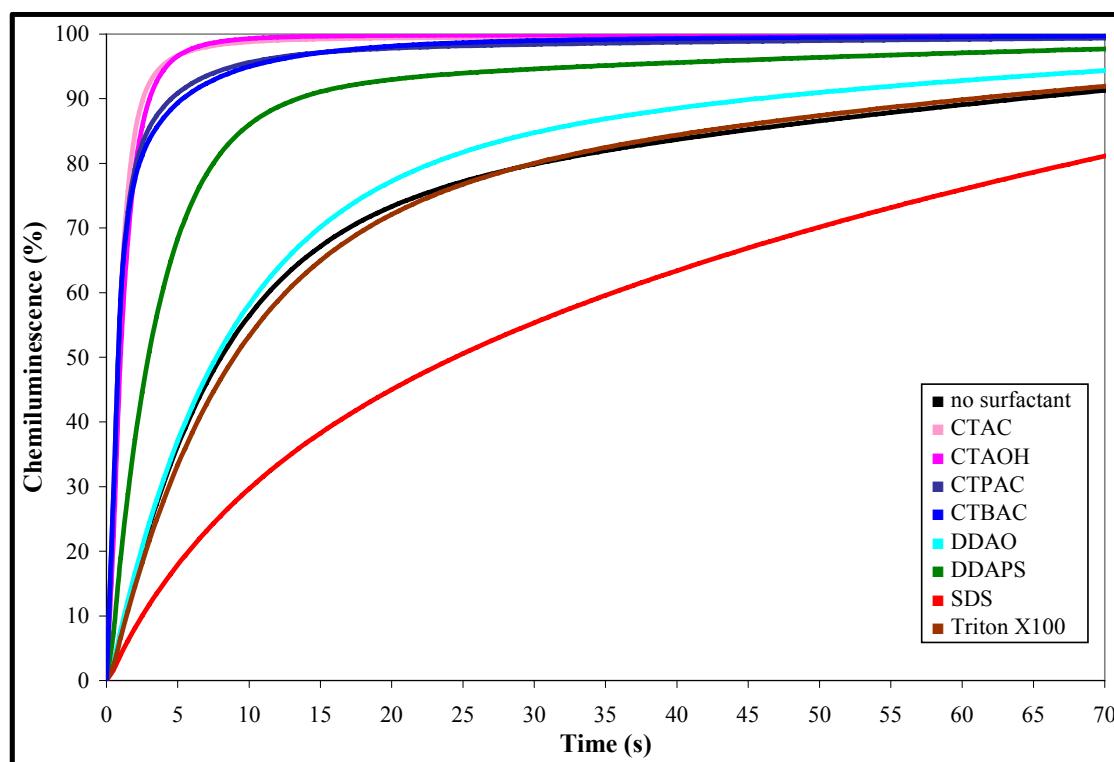


Figure 10. Light emission profiles of avidin conjugate of **3a** in the absence and in the presence of various surfactants.

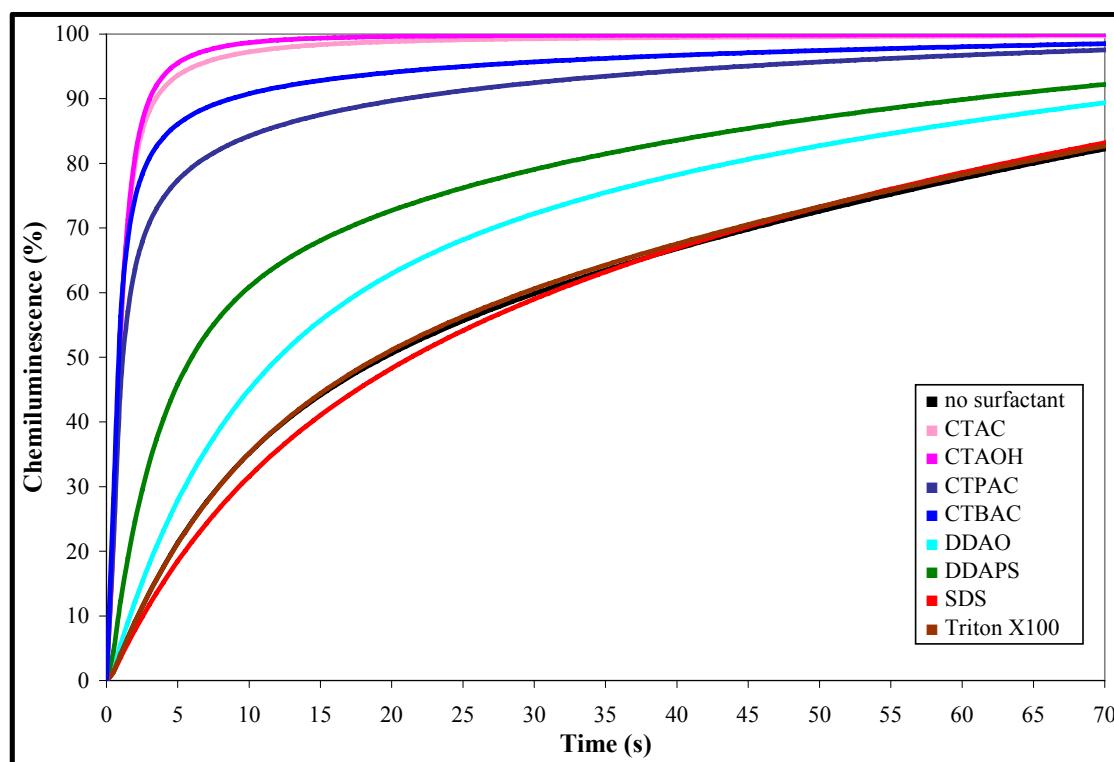


Figure 11. Light emission profiles of anti-TSH antibody conjugate of **3b** in the absence and in the presence of various surfactants.

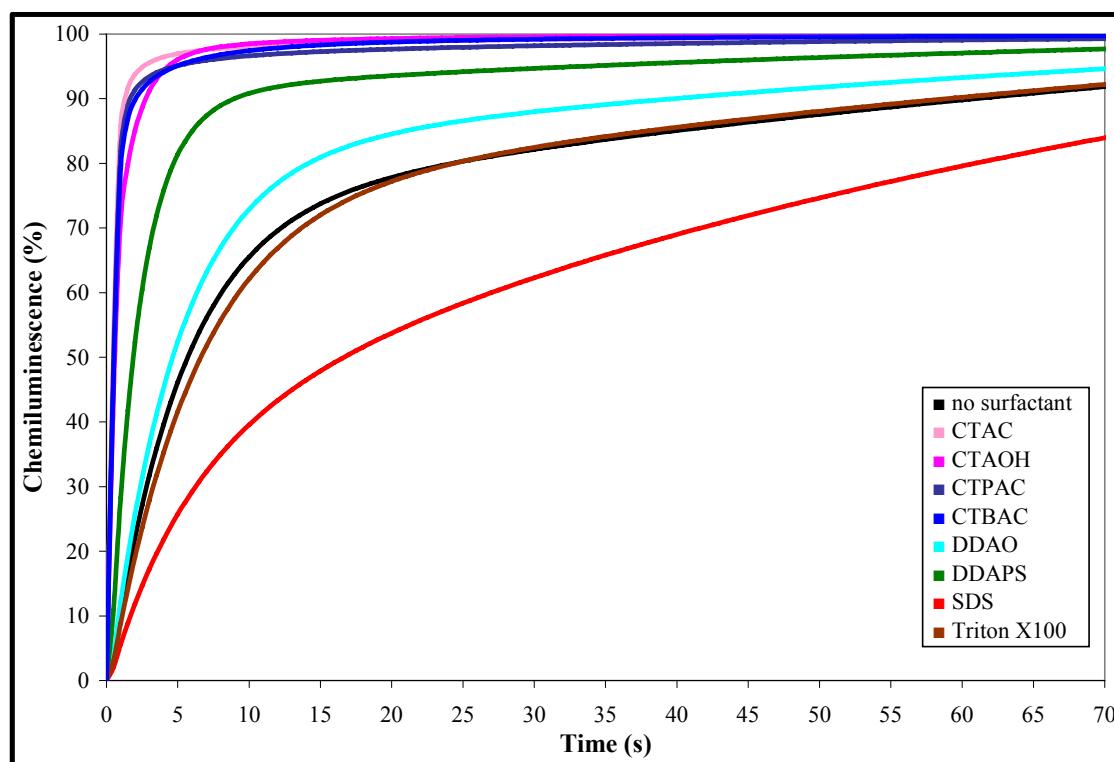


Figure 12. Light emission profiles of anti-HBsAg antibody conjugate of **3b** in the absence and in the presence of various surfactants.

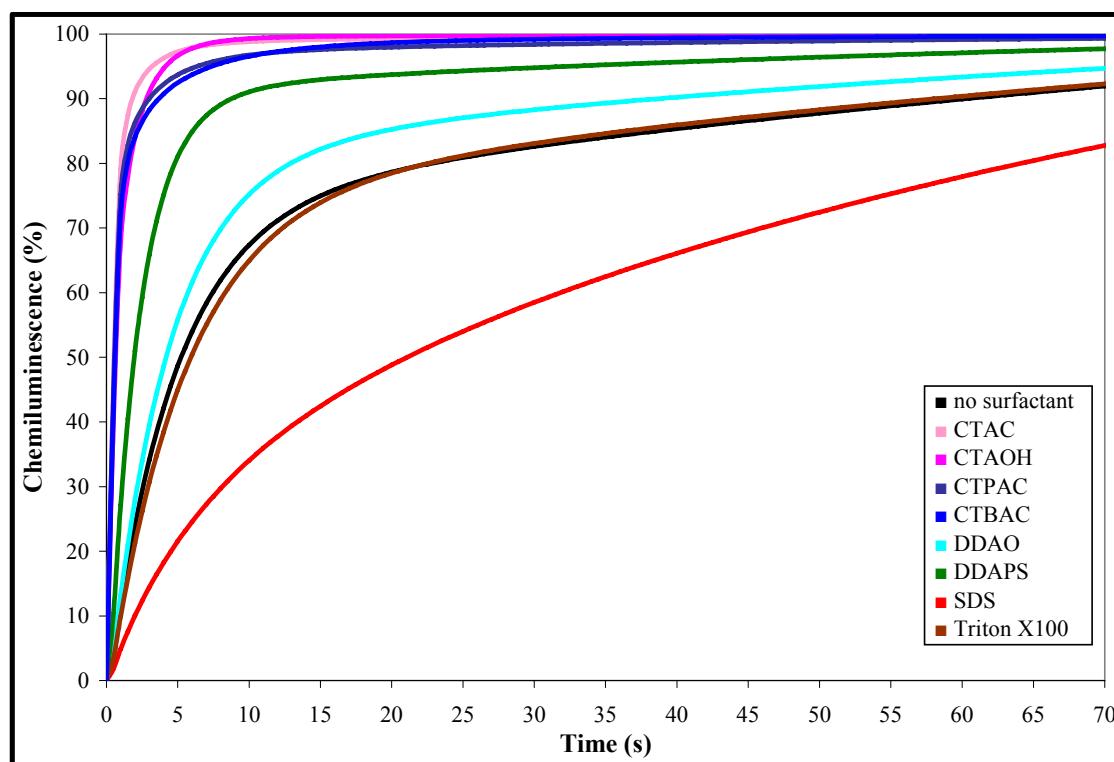


Figure 13. Light emission profiles of avidin conjugate of **3b** in the absence and in the presence of various surfactants.

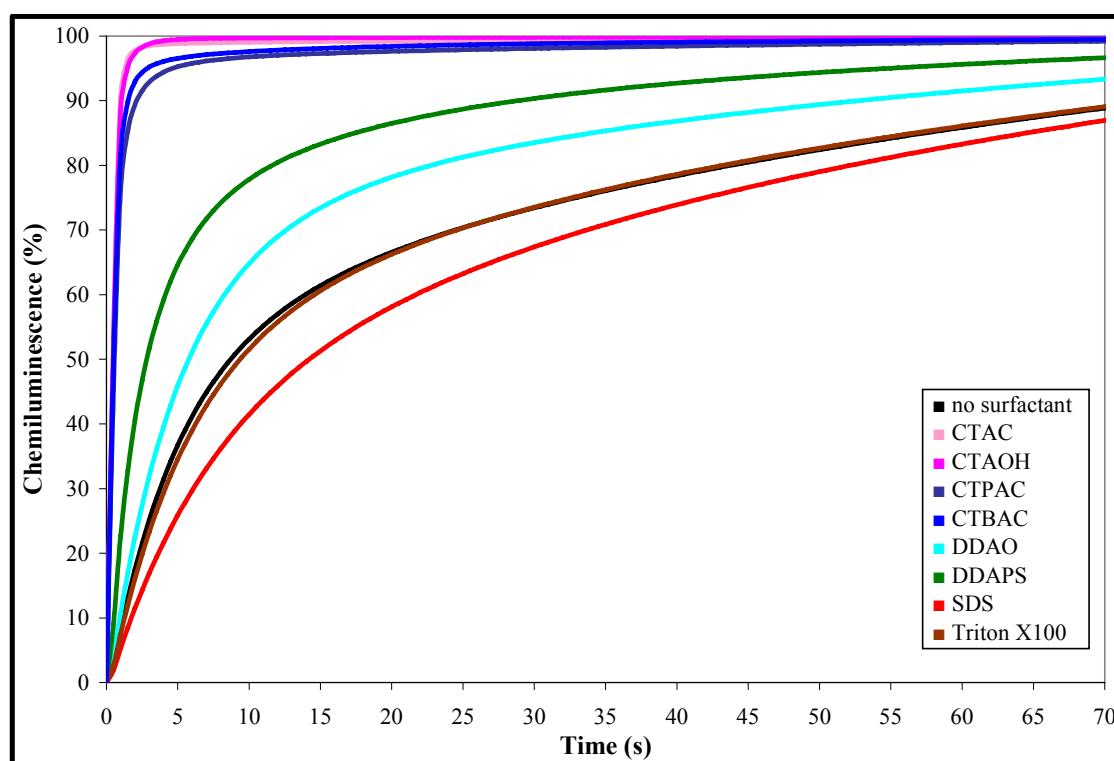


Figure 14.  $^1\text{H}$ -NMR (500 MHz,  $\text{CDCl}_3$ ) of compound ii

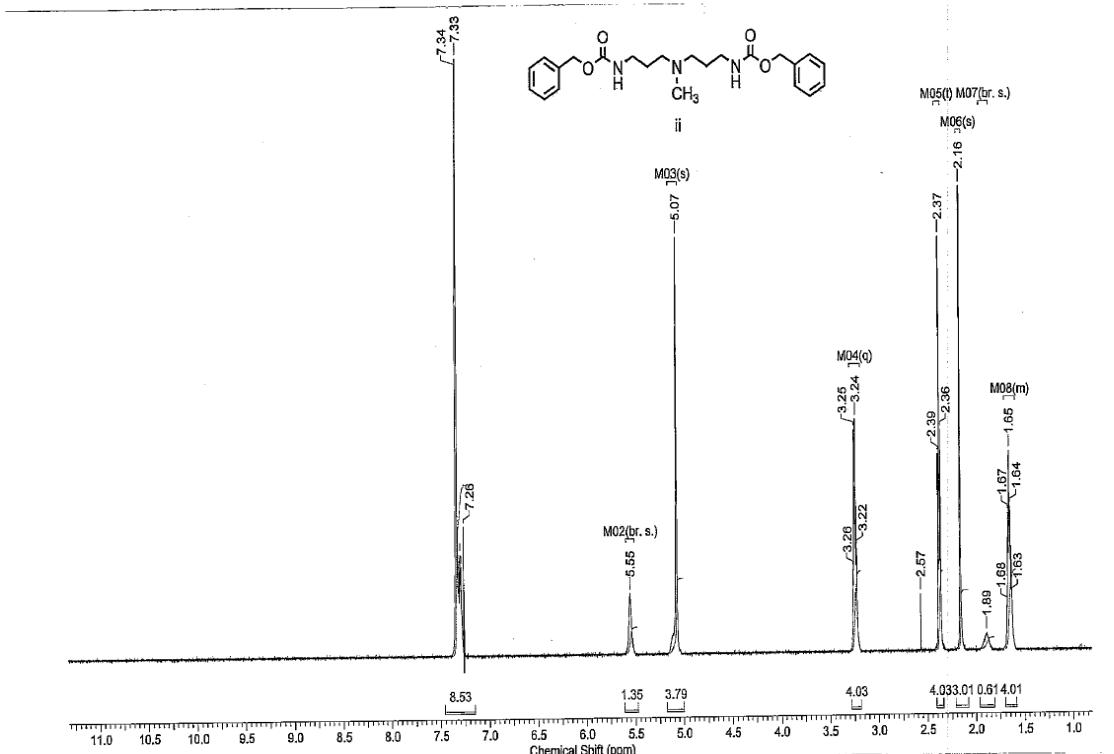


Figure 15.  $^1\text{H}$ -NMR (500 MHz,  $\text{CD}_3\text{OD}$ ) of compound **iii**

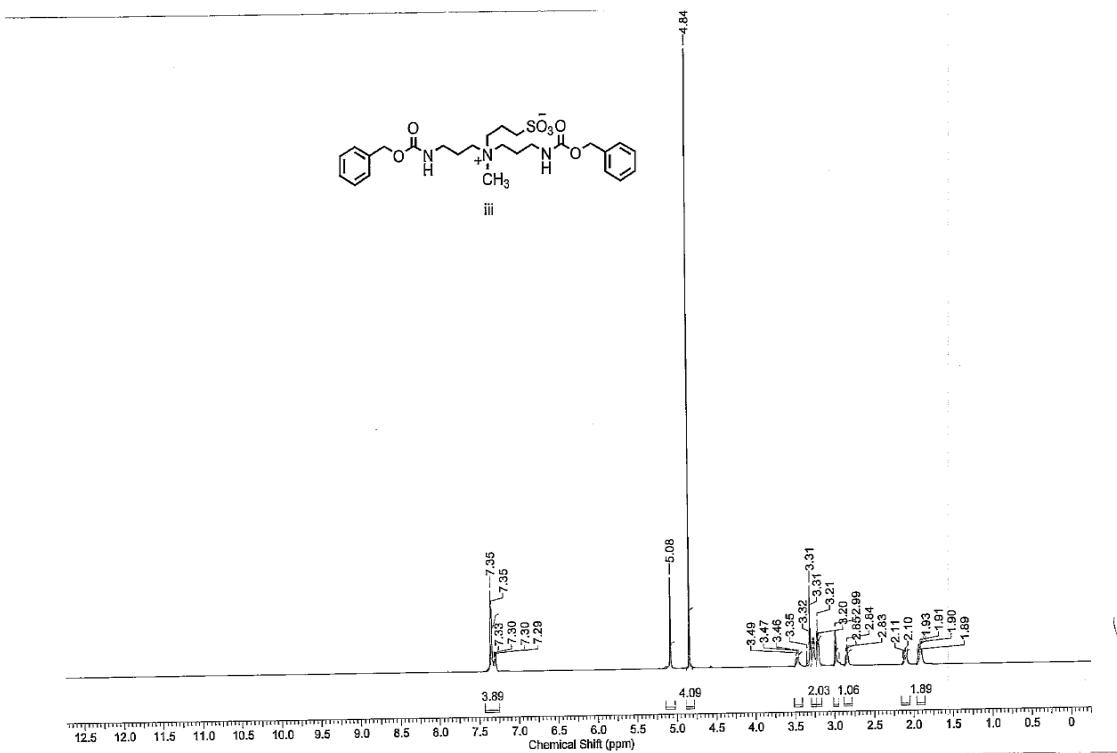


Figure 16.  $^1\text{H}$ -NMR (500 MHz,  $\text{CF}_3\text{COOD}$ ) of compound **iv**

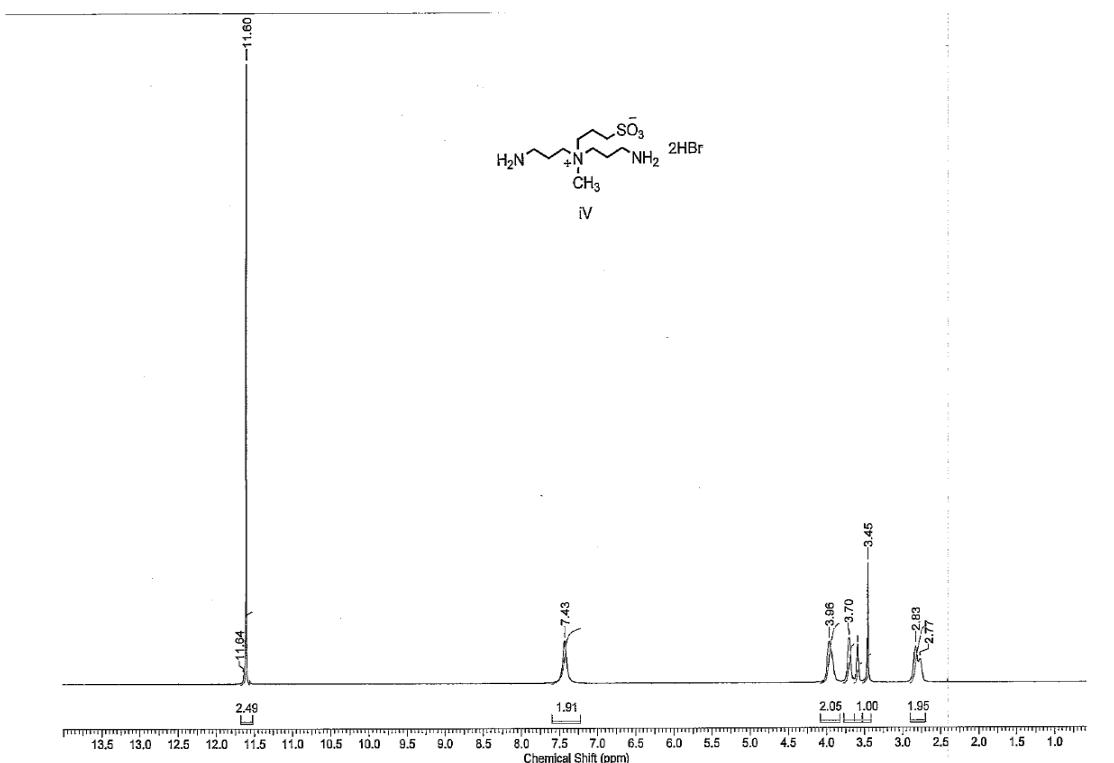


Figure 17. HPLC chromatogram of compound **1a**  
(HPLC conditions: 10 micron, C<sub>18</sub> 3.9 mm x 25 cm column and a 40 minute gradient of 10 → 60% B (A = water with 0.05% TFA, B = MeCN with 0.05% TFA) at a flow rate of 1.0 mL/minute and UV detection at 260 nm)

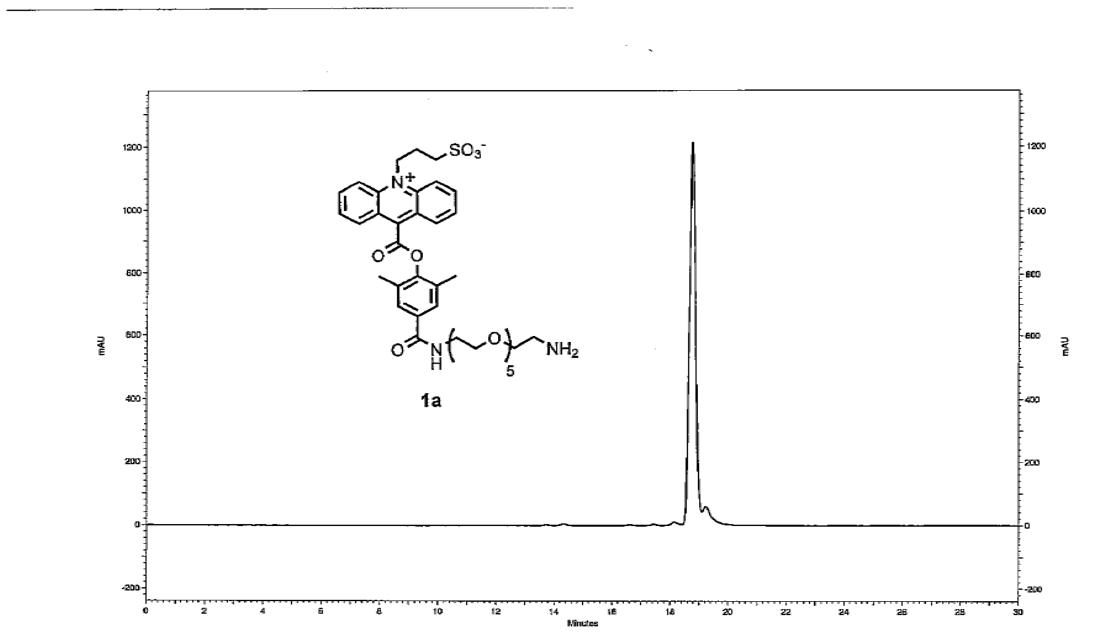


Figure 18. HPLC chromatogram of compound **2a**  
(HPLC conditions: 10 micron, C<sub>18</sub> 3.9 mm x 25 cm column and a 40 minute gradient of 10 → 40% B (A = water with 0.05% TFA, B = MeCN with 0.05% TFA) at a flow rate of 1.0 mL/minute and UV detection at 260 nm)

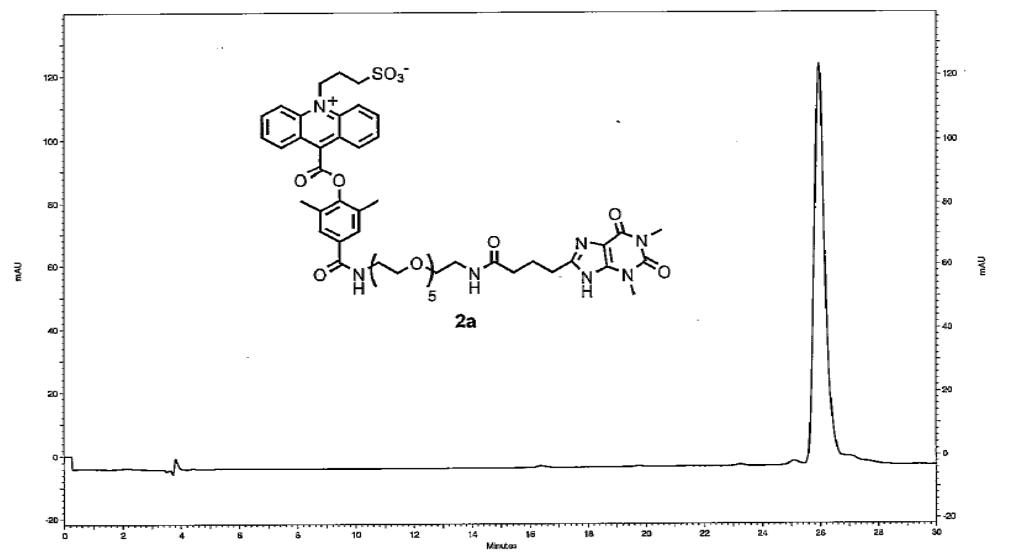


Figure 19. HPLC chromatogram of compound **3a**  
(HPLC conditions: 10 micron, C<sub>18</sub> 3.9 mm x 25 cm column and a 30 minute gradient of 10 → 35% B (A = water with 0.05% TFA, B = MeCN with 0.05% TFA) at a flow rate of 1.0 mL/minute and UV detection at 260 nm)

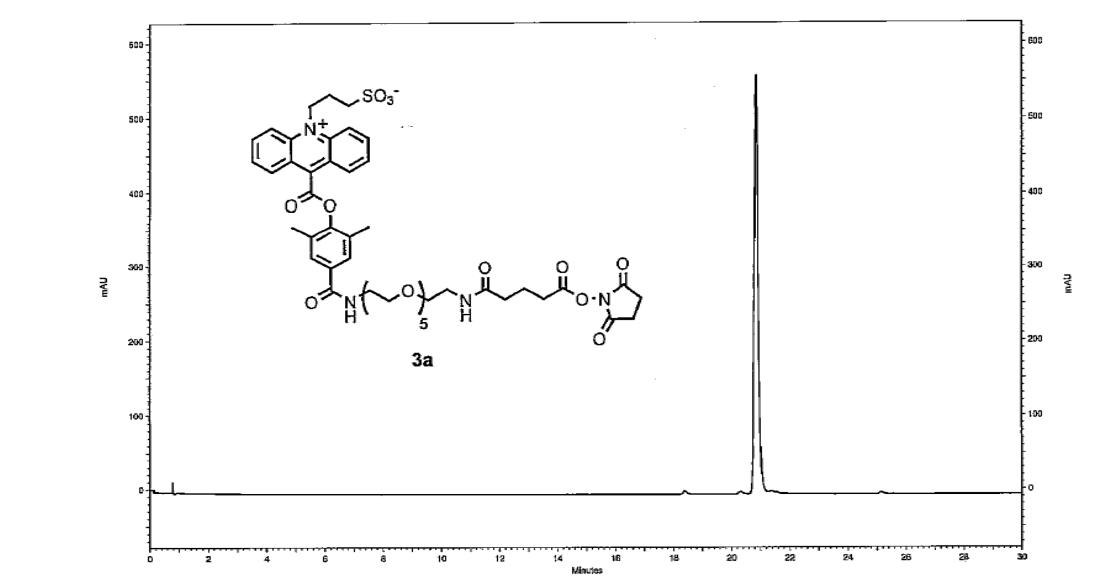


Figure 20. HPLC chromatogram of compound **1b**

(HPLC conditions: 10 micron, C<sub>18</sub> 3.9 mm x 25 cm column and a 30 minute gradient of 10 → 90% B (A = water with 0.05% TFA, B = MeCN with 0.05% TFA) at a flow rate of 1.0 mL/minute and UV detection at 260 nm)

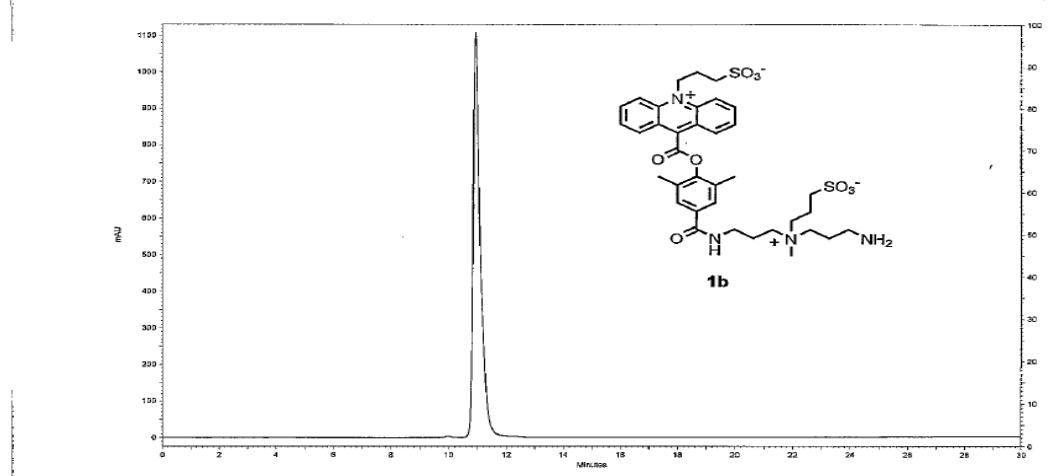


Figure 21. HPLC chromatogram of compound **2b**  
(HPLC conditions: 10 micron, C<sub>18</sub> 3.9 mm x 25 cm column and a 40 minute gradient of 10 → 40% B (A = water with 0.05% TFA, B = MeCN with 0.05% TFA) at a flow rate of 1.0 mL/minute and UV detection at 260 nm)

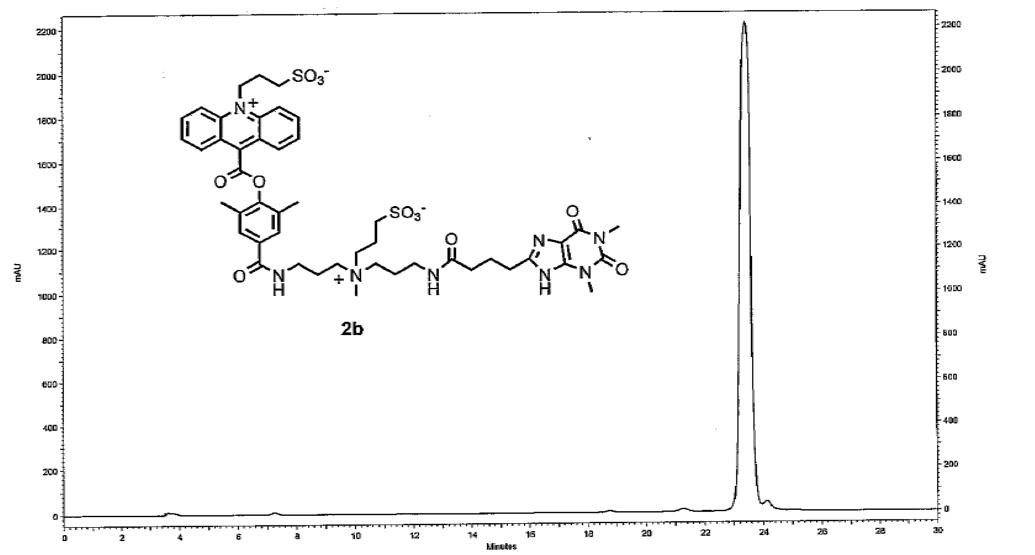


Figure 22. HPLC chromatogram of compound **3b**  
(HPLC conditions: 10 micron, C<sub>18</sub> 3.9 mm x 25 cm column and a 40 minute gradient of 10 → 40% B (A = water with 0.05% TFA, B = MeCN with 0.05% TFA) at a flow rate of 1.0 mL/minute and UV detection at 260 nm)

