Supporting Information

(copies of spectra)

Two-steps synthesis of hexasubstituted porphyrins at the β -pyrrolic positions

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[3,7,12-Trinitro-2,8,13-tris{(toluene-4-sulphonyl)methyl}-5,10,15,20tetraphenylporphyrinato]copper(II) (3)





Figure 1. UV-vis spectra of product 3.



Figure 2. MS spectrum of product 3 ([M+Na]⁺ ion; ESI technique).



Figure 3. MS spectrum of product 3 ([2M+Na]⁺ ion; ESI technique).

Pentasubstituted isomers (4-6): product $R_f=0.40$, product $R_f=0.35$, and product $R_f=0.28$, respectively





Figure 4. MS spectrum of mixture of isomers 4-6 ([M+Na]⁺ ion; ESI technique, positive ions mode).

[3,7,12-Trinitro-2,8,13-tris{(phenylsulphonyl)methyl}-5,10,15,20tetraphenylporphyrinato]copper(II) (7)





Figure 5. UV-vis spectra of product 7.



Figure 6. MS spectrum of product 7 (FD technique, positive ions mode).



Figure 7. MS spectrum of product 7 (molecular M⁺ ion; FD technique, positive ions mode).

[3,7,12-Trinitro-β,β-bis{(phenylsulphonyl)methyl}-5,10,15,20tetraphenylporphyrinato]copper(II) (8)











Figure 9. MS spectrum of product 8 (ESI technique, negative ions mode).







Figure 10. UV-vis spectrum of product 9.



Figure 11. MS spectrum of product 9 (ESI technique, negative ions mode).



Figure 12. MS spectrum of product 9 ([M+Na]⁺ ion; ESI technique, positive ions mode).

[3,7,12-Trinitro-2,8,13-tris[(toluene-4-sulphonyl)methyl]-5,10,15,20tetraphenylporphyrin (10)





Figure 13. UV-vis spectrum of product 10.



Figure 14. ¹H NMR spectrum of product 10.



Figure 15. MS spectrum of product 10 (ESI technique, positive ions mode).



Figure 16. MS spectrum of product 10 (ESI technique, negative ions mode).

3,7,12-Trinitro-2,8,13-tris[(phenylsulphonyl)methyl]-5,10,15,20tetraphenylporphyrin (11)





Figure 17. UV-vis spectrum of product 11.







Figure 19. MS spectrum of product 11 (ESI technique, positive ions mode).



Figure 20. MS spectrum of product 11 (ESI technique, negative ions mode).