Synthesis and Determination of Cerium(IV)-Reducing Antioxidant Capacity (CERAC) Assay of Some New Anthraquinones

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Contents

Compound 3a	Error! Bookmark not defined.
Compound 3b	6
Compound 3c	10
Compound 3d	14

Compound 3a $(C_{18}H_{15}ClO_3S)$

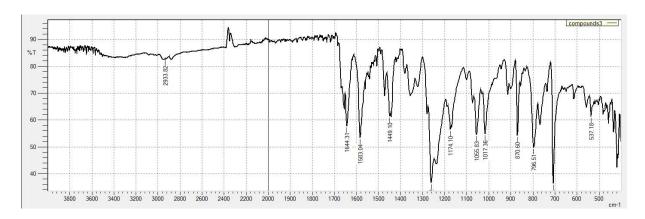


Figure S1. FTIR (ATR) spectrum of 3a.

Compound 3a (C₁₈H₁₅ClO₃S)

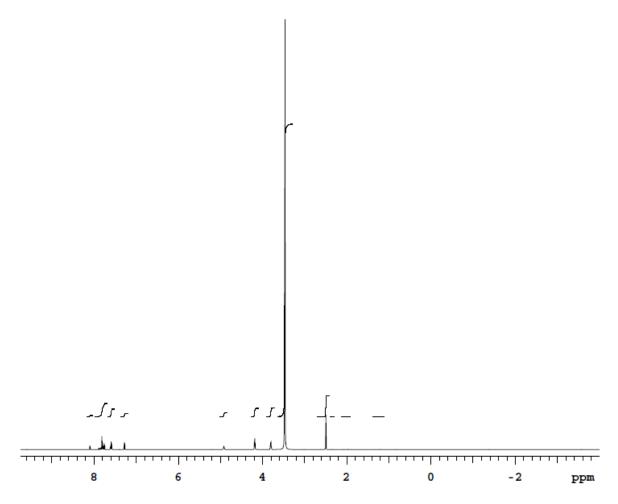


Figure S2. ¹H NMR spectrum of 3a recorded in DMSO-d₆.

Compound 3a (C₁₈H₁₅ClO₃S)

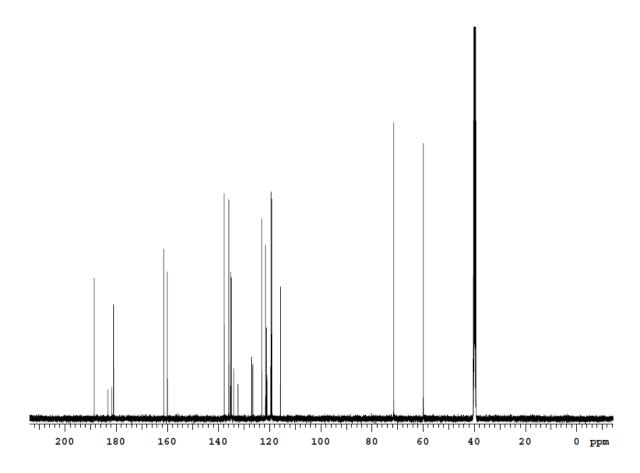


Figure S3. ¹³C NMR spectrum of 3a recorded in DMSO-d₆.

Compound 3a $(C_{18}H_{15}ClO_3S)$

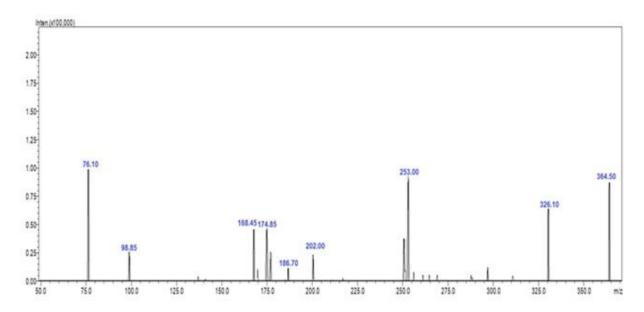


Figure S4. Mass spectrum of compound 3a.

Compound 3b $(C_{17}H_{12}ClNO_2)$

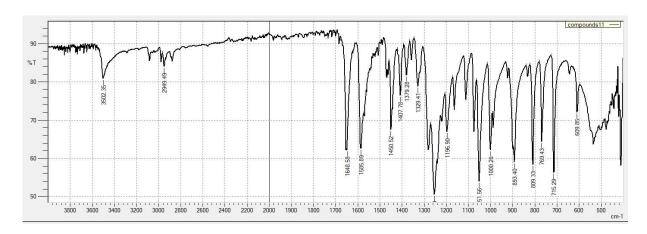


Figure S5. FTIR (ATR) spectrum of 3b.

Compound 3b (C₁₇H₁₂ClNO₂)

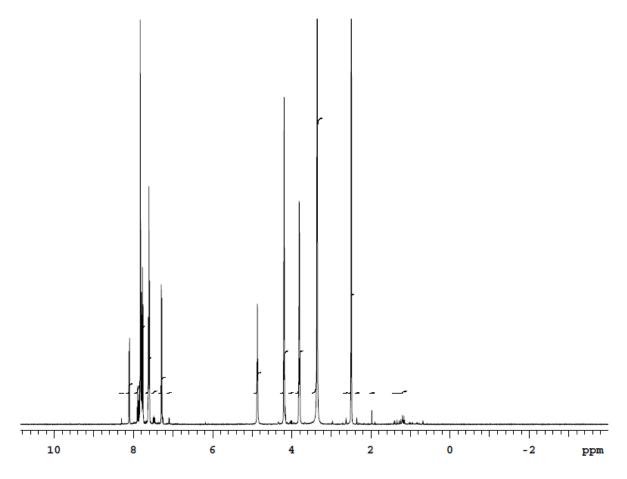


Figure S6. ¹H NMR spectrum of 3b recorded in DMSO-d₆.

Compound 3b (C₁₇H₁₂ClNO₂)

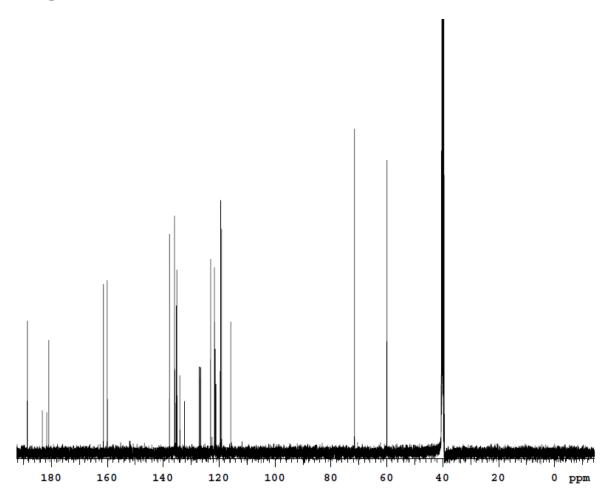


Figure S7. ¹³C NMR spectrum of 3b recorded in DMSO-d₆.

Compound 3b $(C_{17}H_{12}CINO_2)$

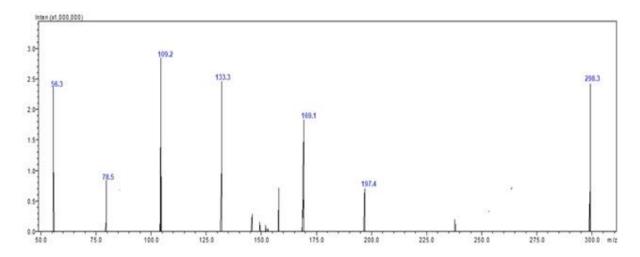


Figure S8. Mass spectrum of compound 3b.

$Compound \ 3c \ (C_{20}H_{13}ClN_2O_4S)$

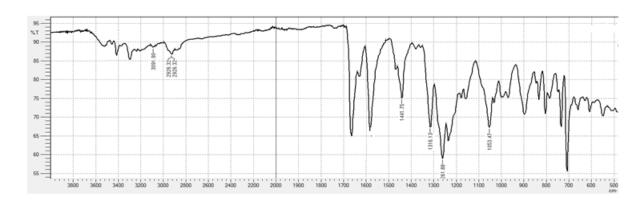


Figure S9. FTIR (ATR) spectrum of 3c.

$Compound \ 3c \ (C_{20}H_{13}ClN_2O_4S)$

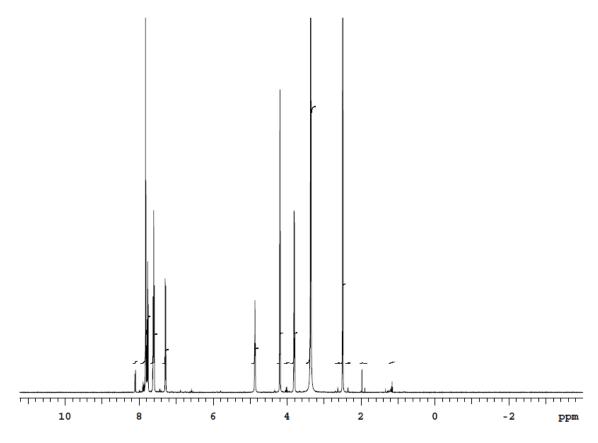


Figure S10. ¹H NMR spectrum of 3c recorded in DMSO-d₆.

$Compound\ 3c\ (C_{20}H_{13}ClN_2O_4S)$

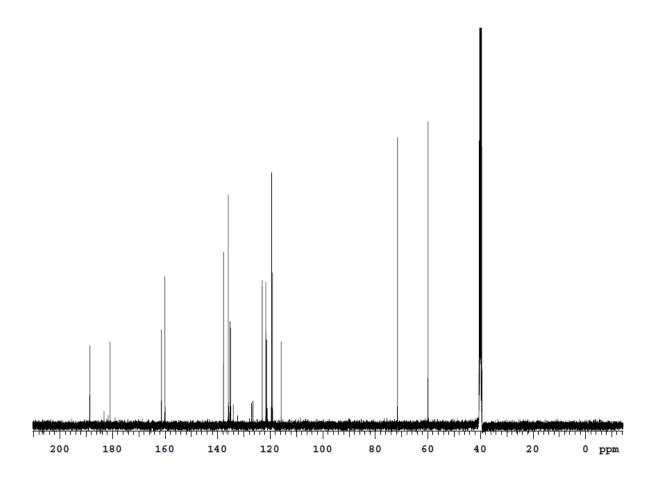


Figure S11. ¹³C NMR spectrum of 3c recorded in DMSO-d₆.

$Compound \ 3c \ (C_{20}H_{13}ClN_2O_4S)$

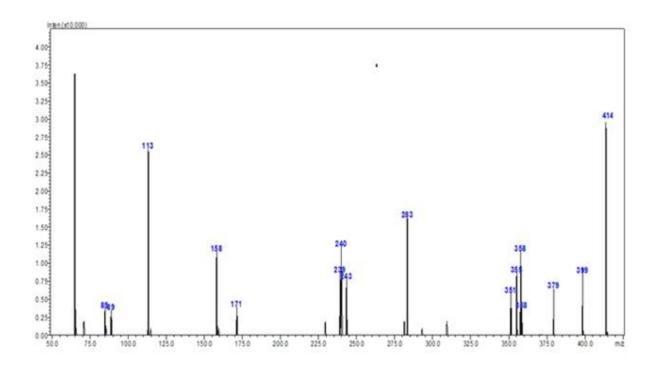


Figure S12. Mass spectrum of compound 3c.

$Compound\ 3d\ (C_{26}H_{17}ClN_2O_4S)$

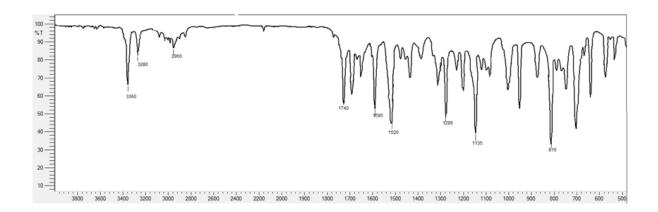


Figure S13. FTIR (ATR) spectrum of 3d.

Compound 3d (C₂₆H₁₇ClN₂O₄S)

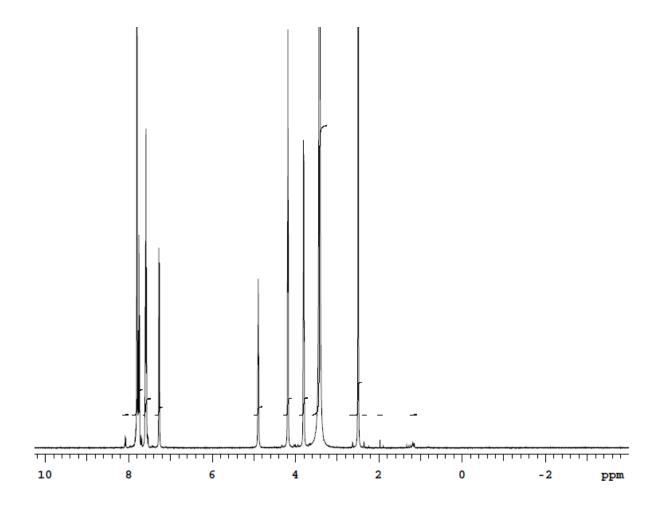


Figure S14. ¹H NMR spectrum of 3d recorded in DMSO-d₆.

$Compound\ 3d\ (C_{26}H_{17}ClN_2O_4S)$

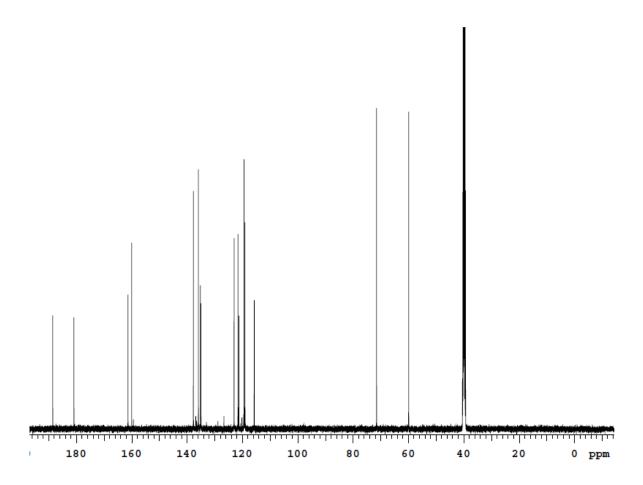


Figure S15. ¹³C NMR spectrum of 3c recorded in DMSO-d₆.

Compound 3d (C₂₆H₁₇ClN₂O₄S)

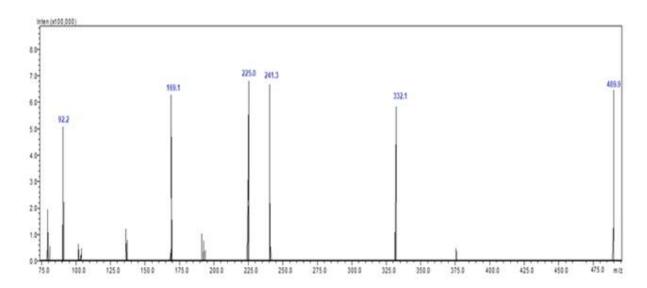


Figure S16. Mass spectrum of compound 3d.