

Supplementary Materials: Antioxidant and Antibacterial Properties of Carbosilane Dendrimers Functionalised with Polyphenolic Moieties

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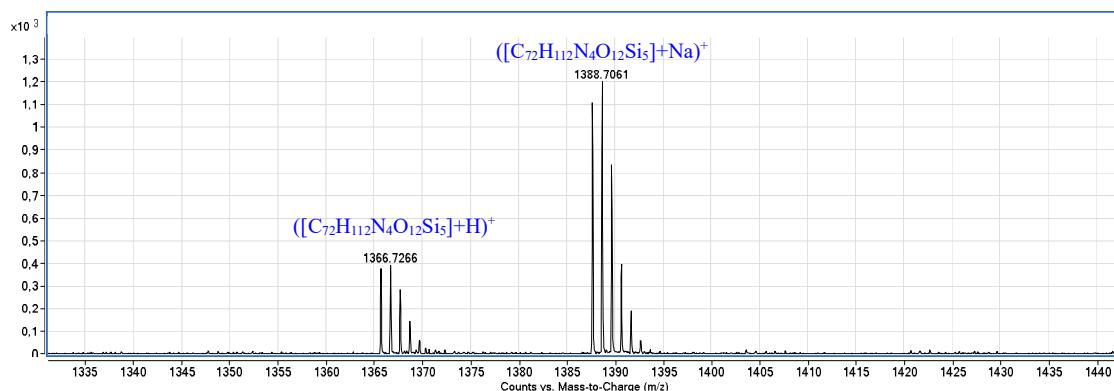


Figure S1. Mass Spectrometry (ESI-TOF) of dendritic polyphenol (**1**)

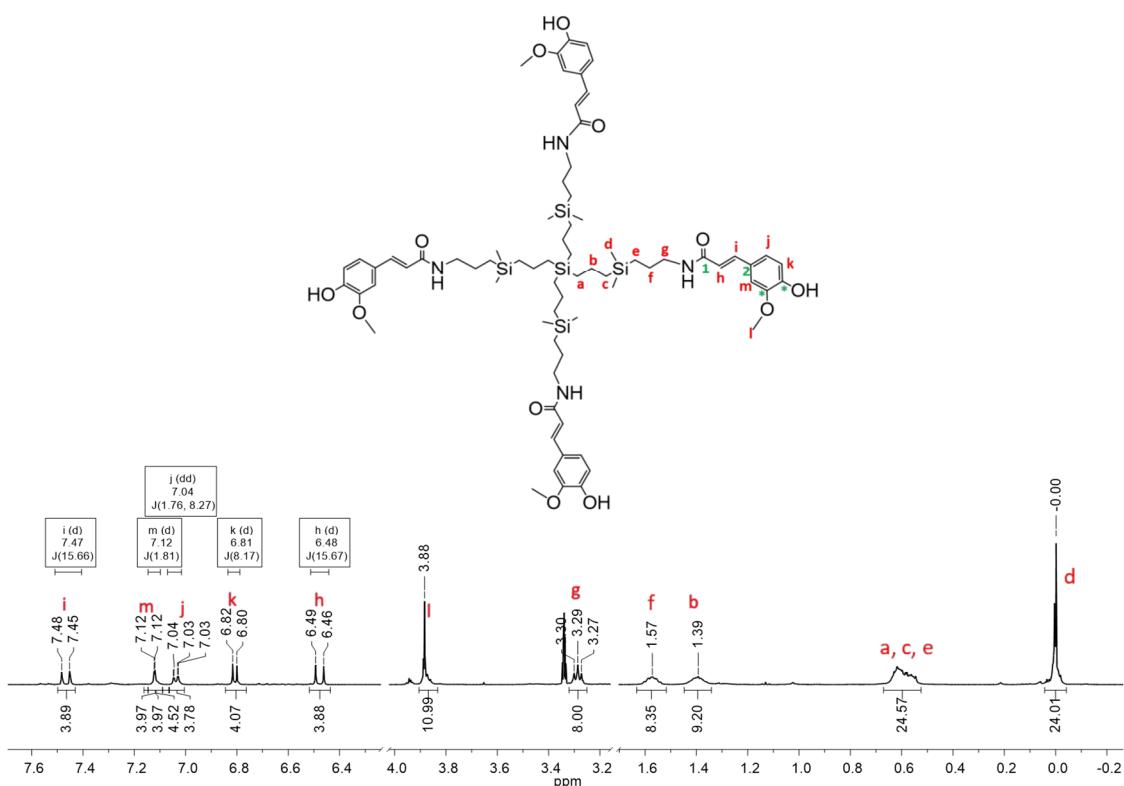


Figure S2. ^1H -NMR (500 MHz, CD_3OD) of dendritic polyphenol (**1**)

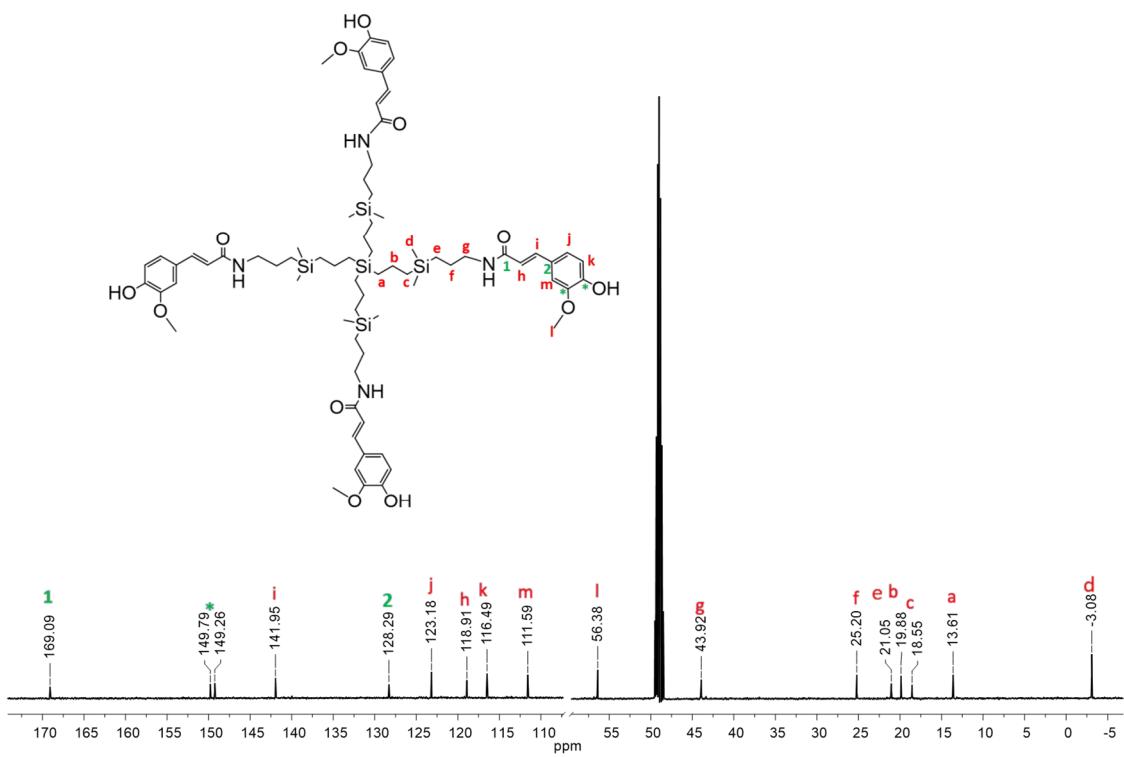


Figure S3. ¹³C-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**1**)

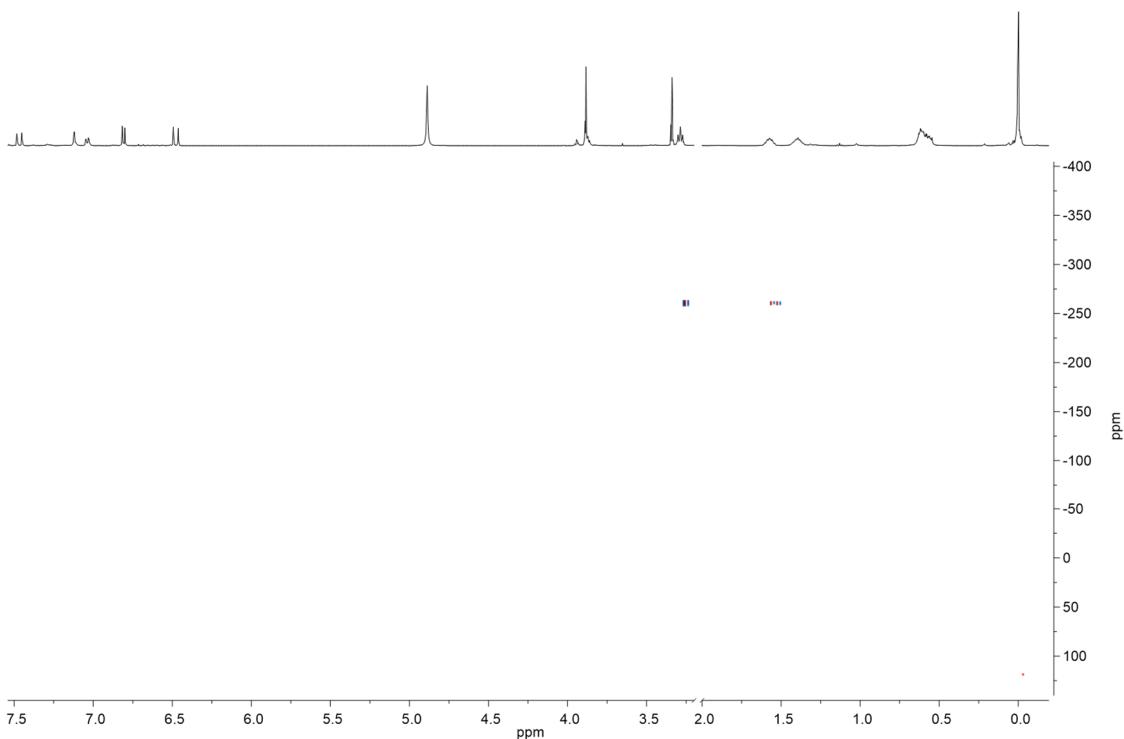


Figure S4. {¹H-¹⁵N}-HMBC-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**1**)

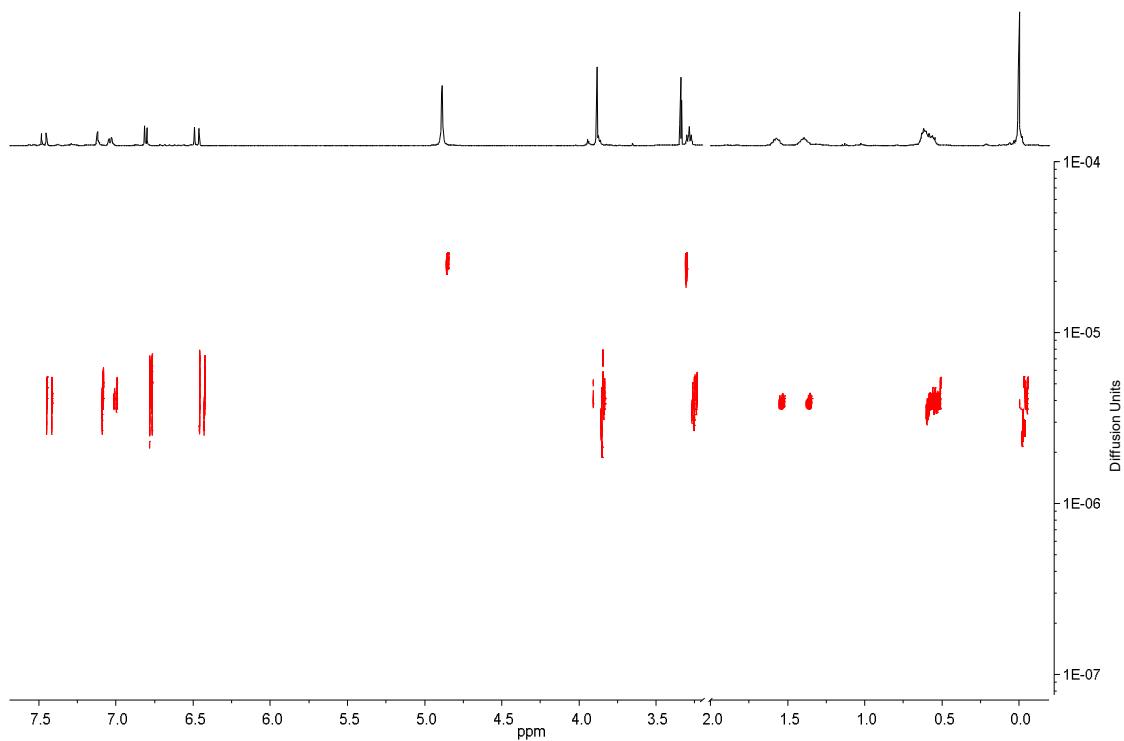


Figure S5. ¹H-DOSY-2D-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**1**)

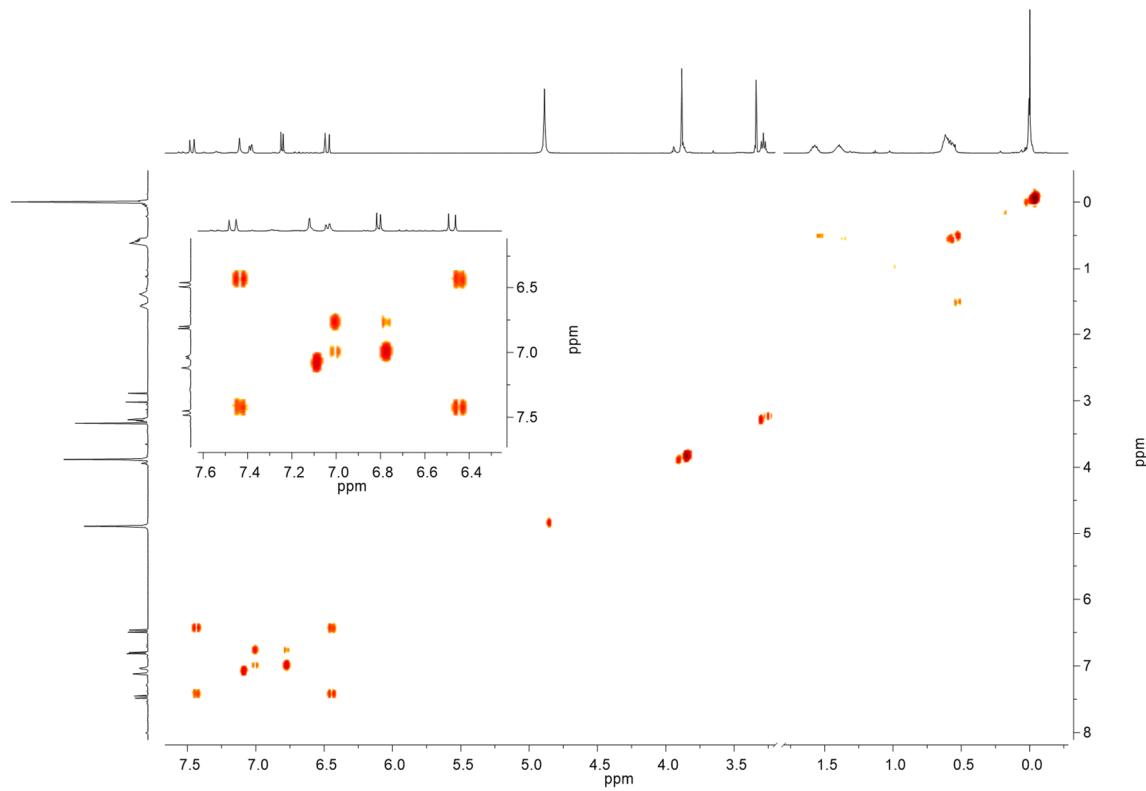


Figure S6. ^{1}H-¹H}-COSY-2D-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**1**)

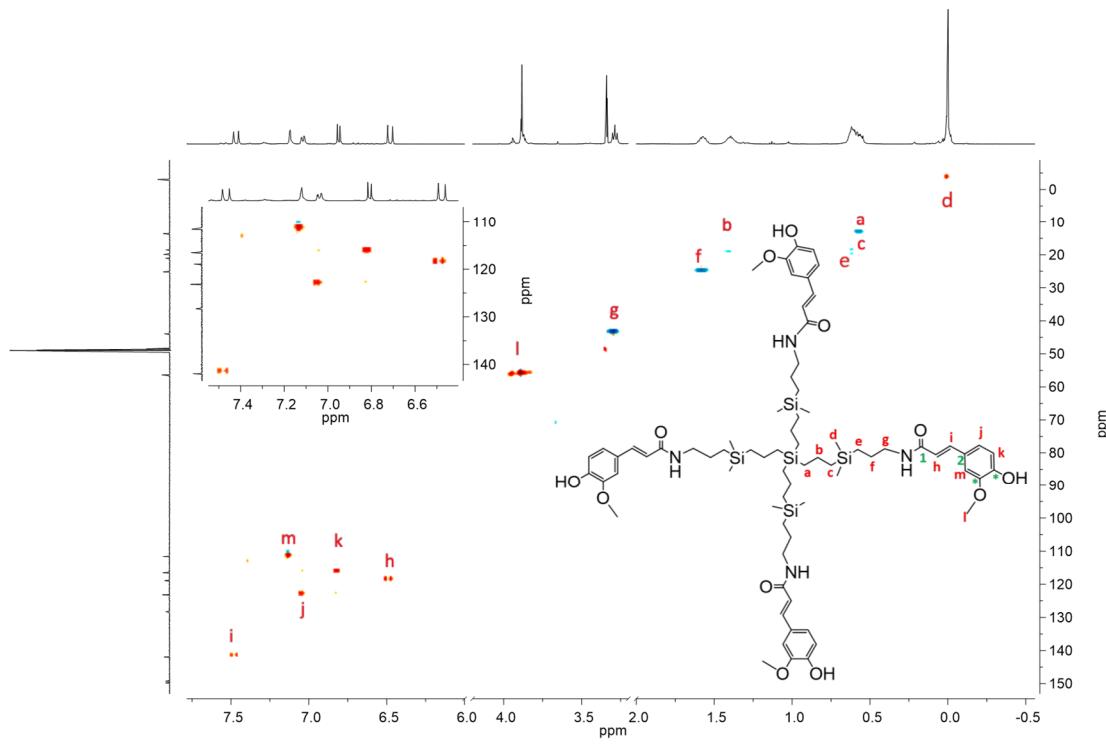


Figure S7. $\{^1\text{H}-^{13}\text{C}\}$ -HSQC-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (1)

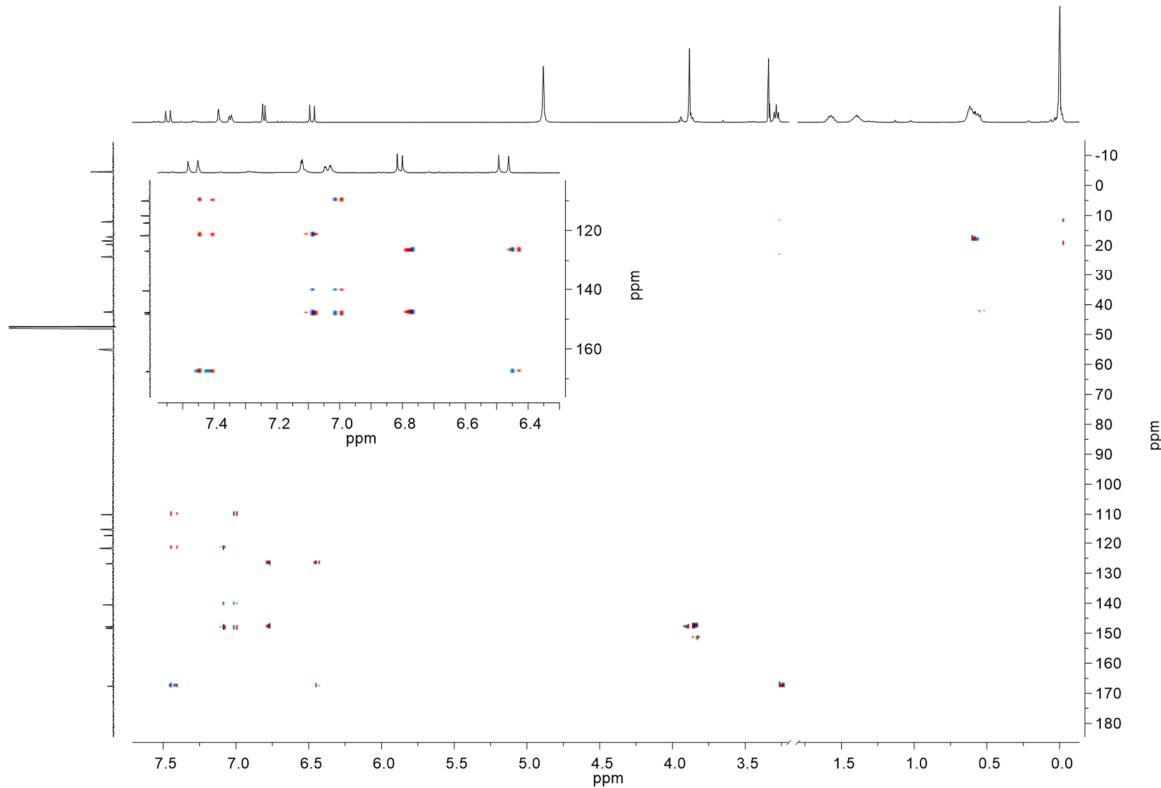


Figure S8. $\{^1\text{H}-^{13}\text{C}\}$ -HMBC-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (1)

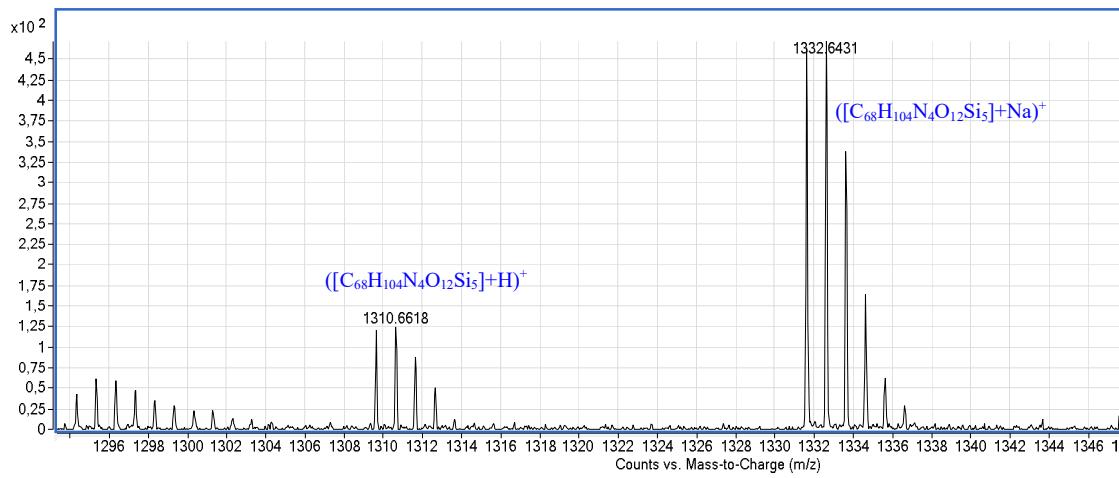


Figure S9. Mass Spectrometry (ESI-TOF) of dendritic polyphenol (**2**)

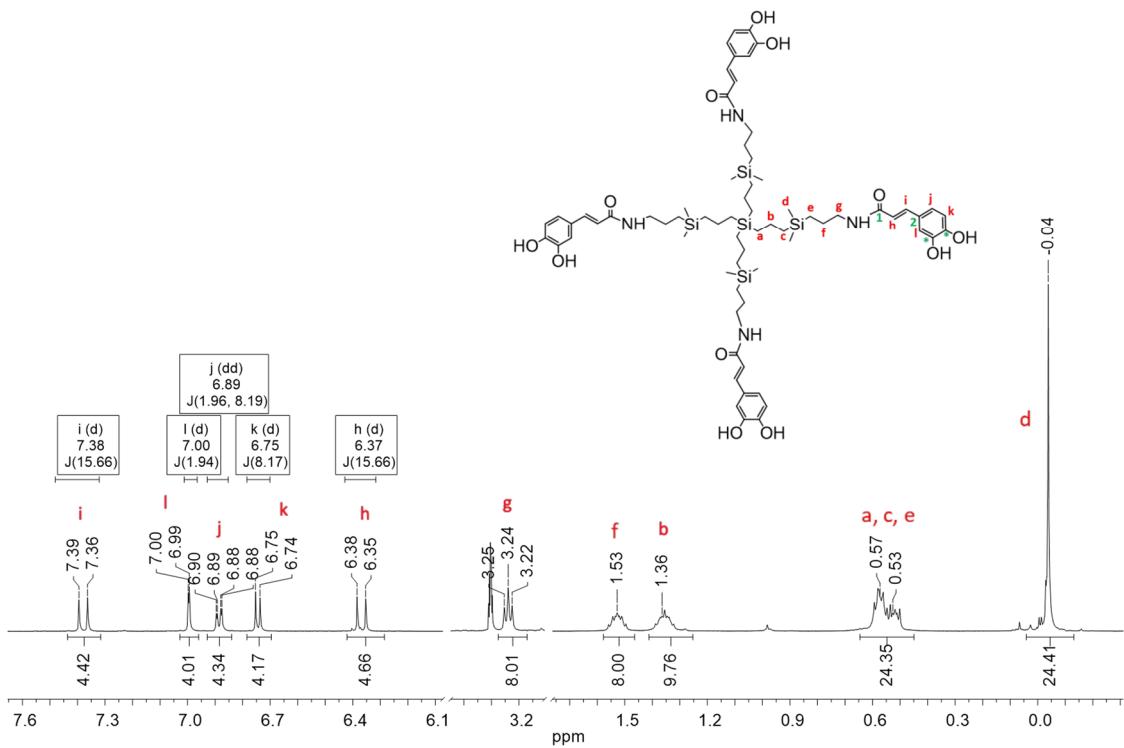


Figure S10. ^1H -NMR (500 MHz, CD_3OD) of dendritic polyphenol (**2**)

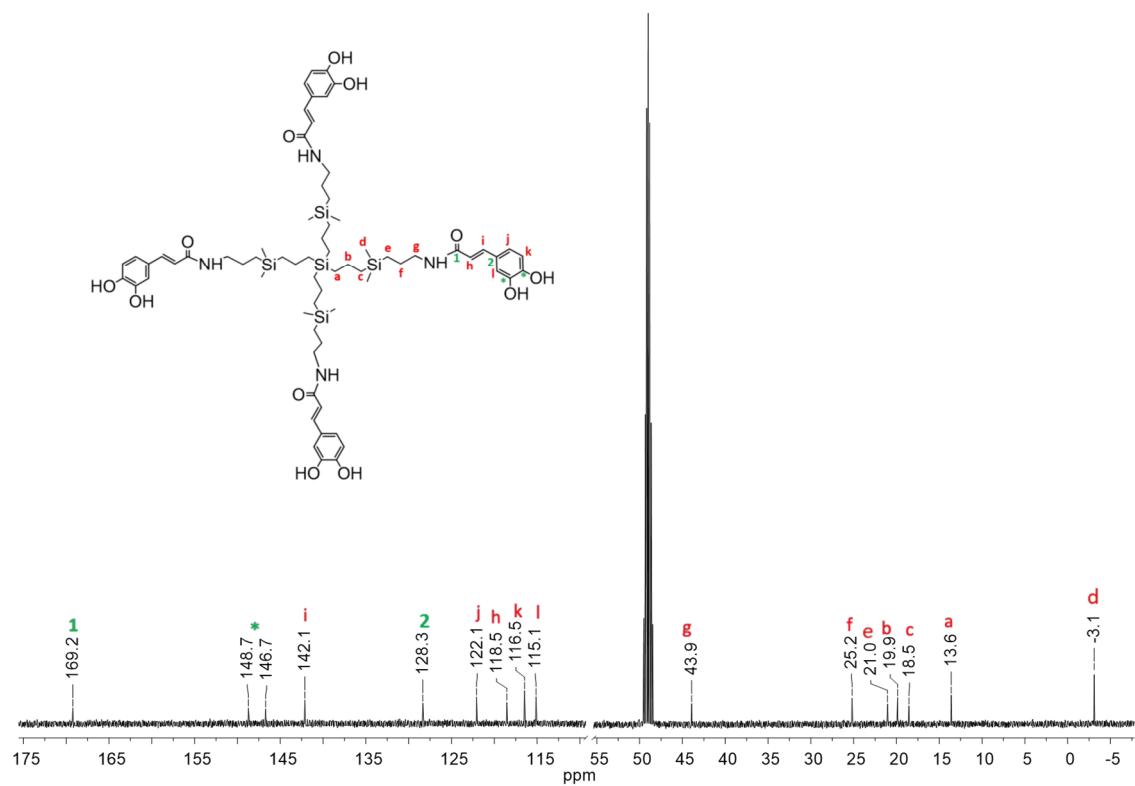


Figure S11. ¹³C-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**2**)

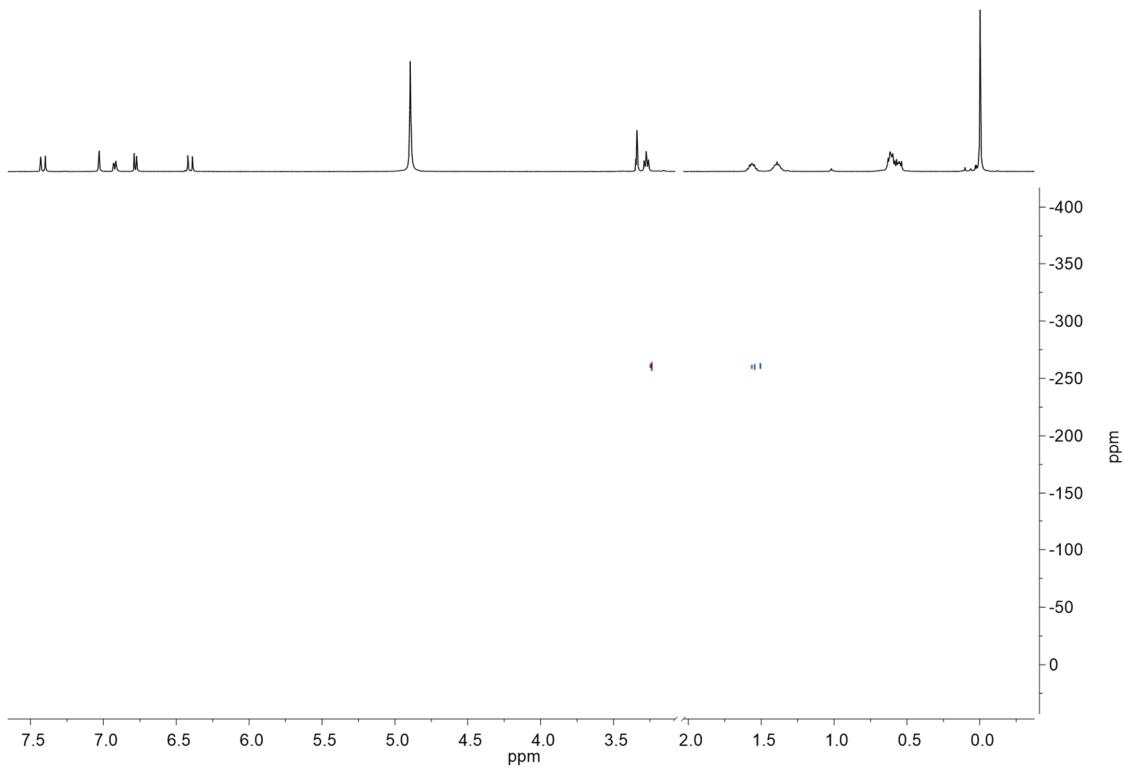


Figure S12. ^{1H-15N}-HMBC-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**2**)

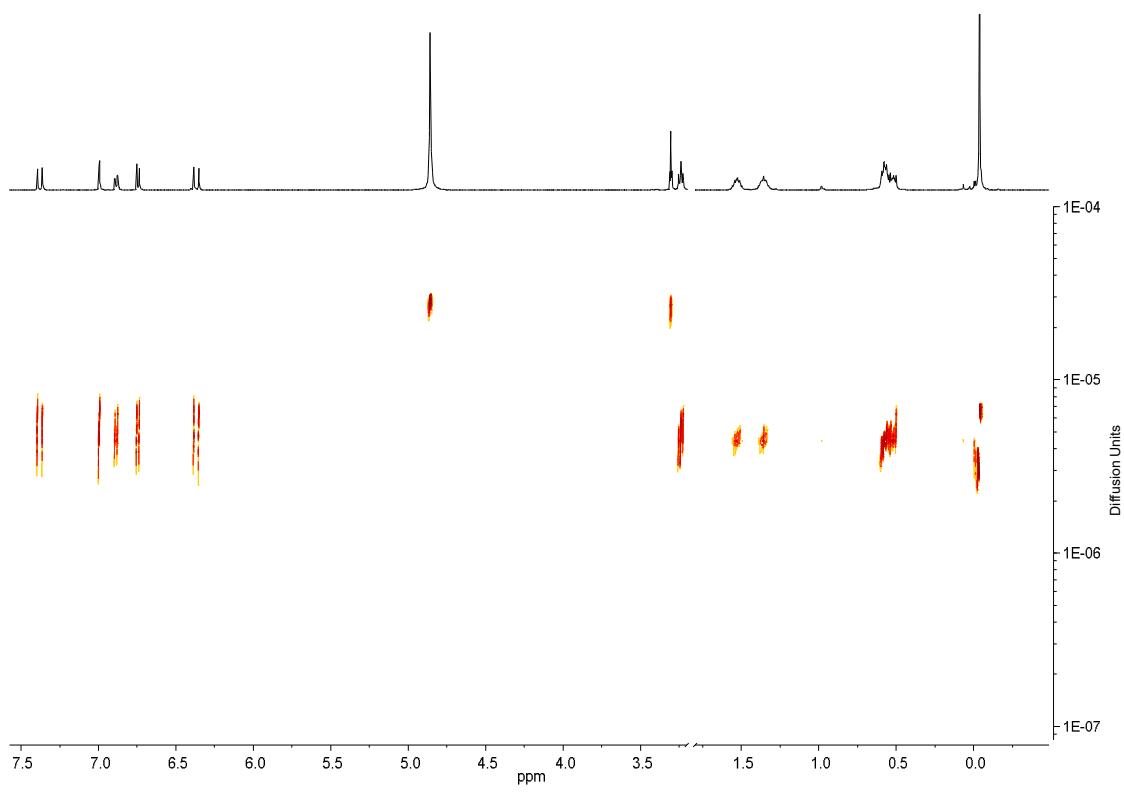
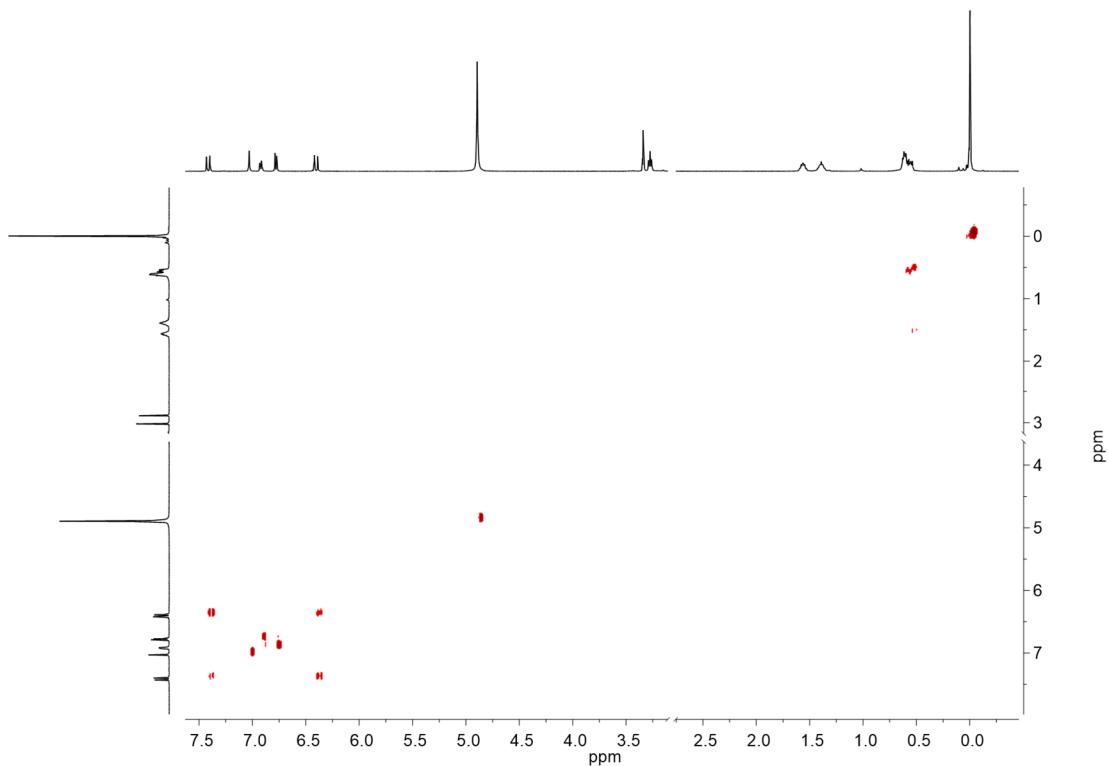


Figure S13. ¹H-DOSY-2D-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**2**)



S14. {¹H-¹H}-COSY-2D-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**2**)

Figure

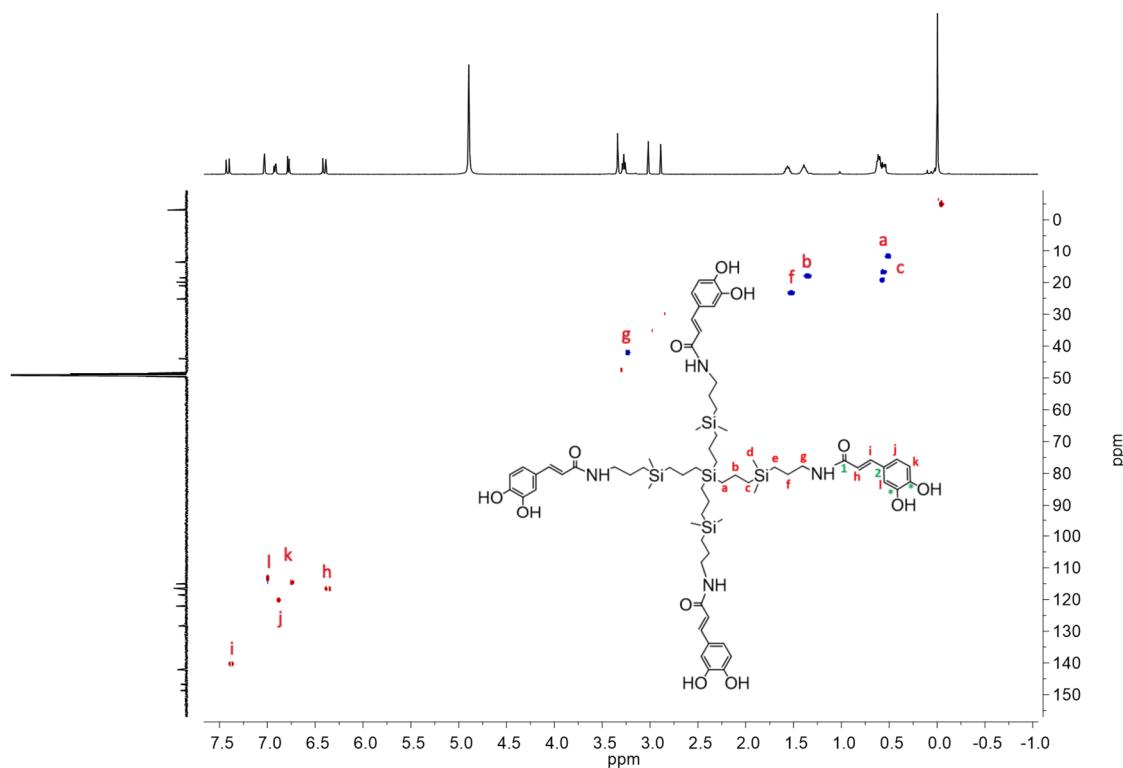


Figure S15. $\{^1\text{H}-^{13}\text{C}\}$ -HSQC-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (2).

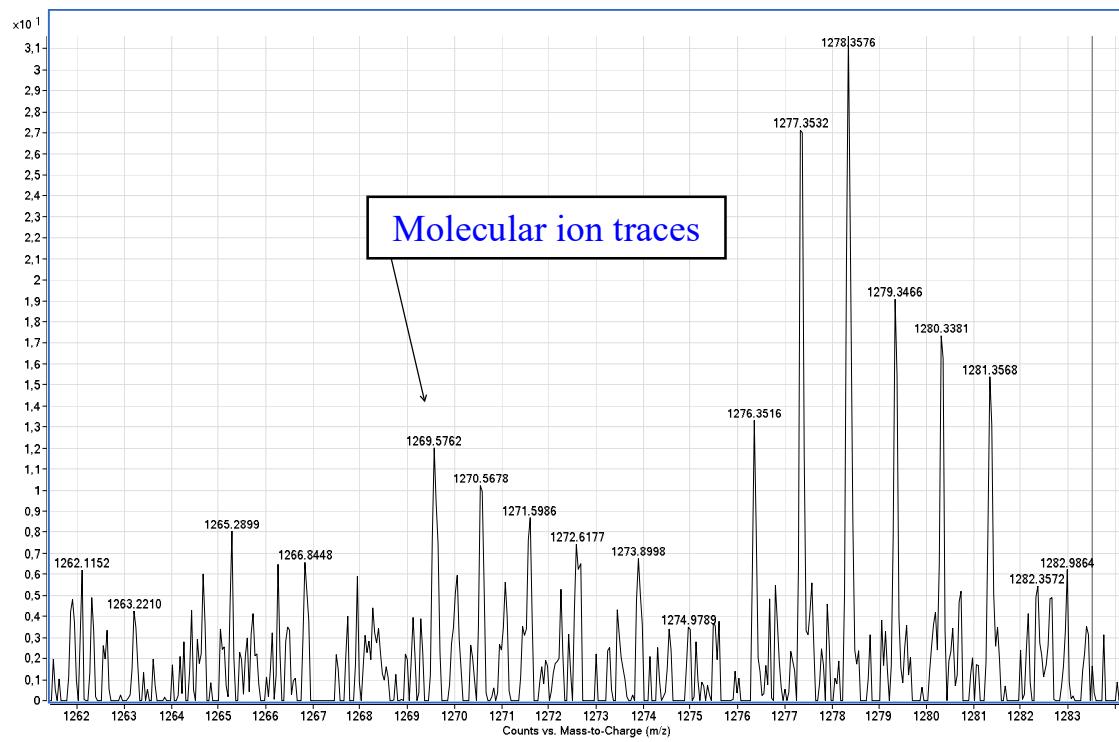


Figure S16. Mass Spectrometry (ESI-TOF) of dendritic polyphenol (3)

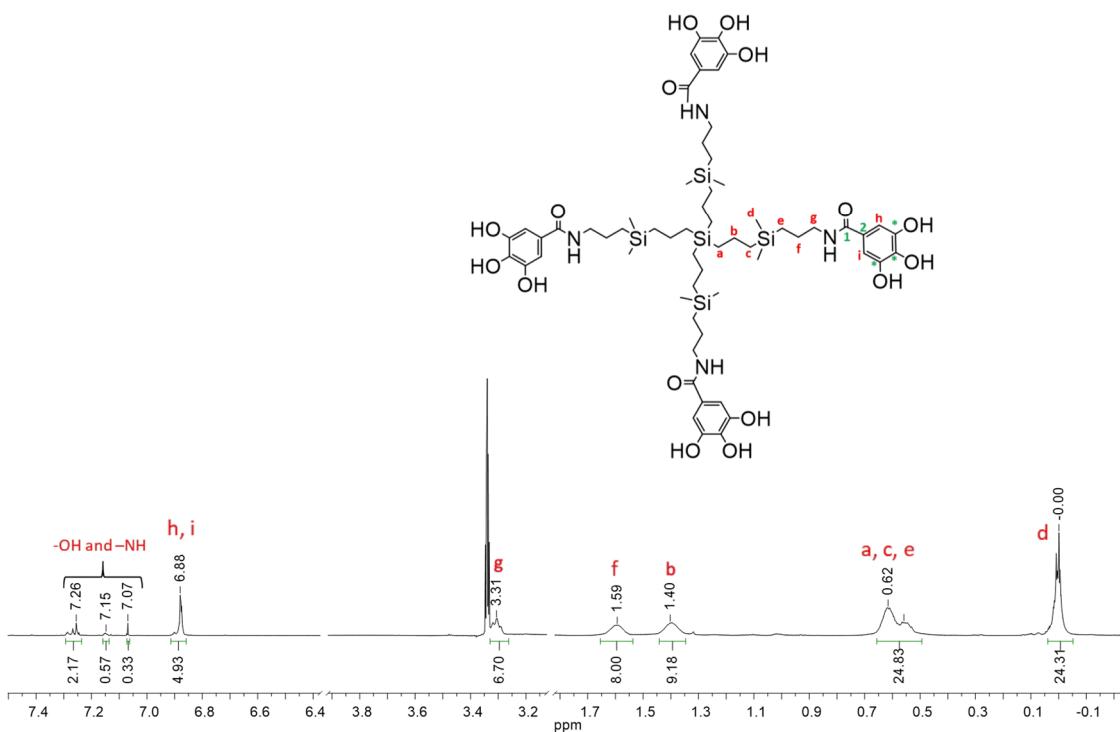


Figure S17. ¹H-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**3**)

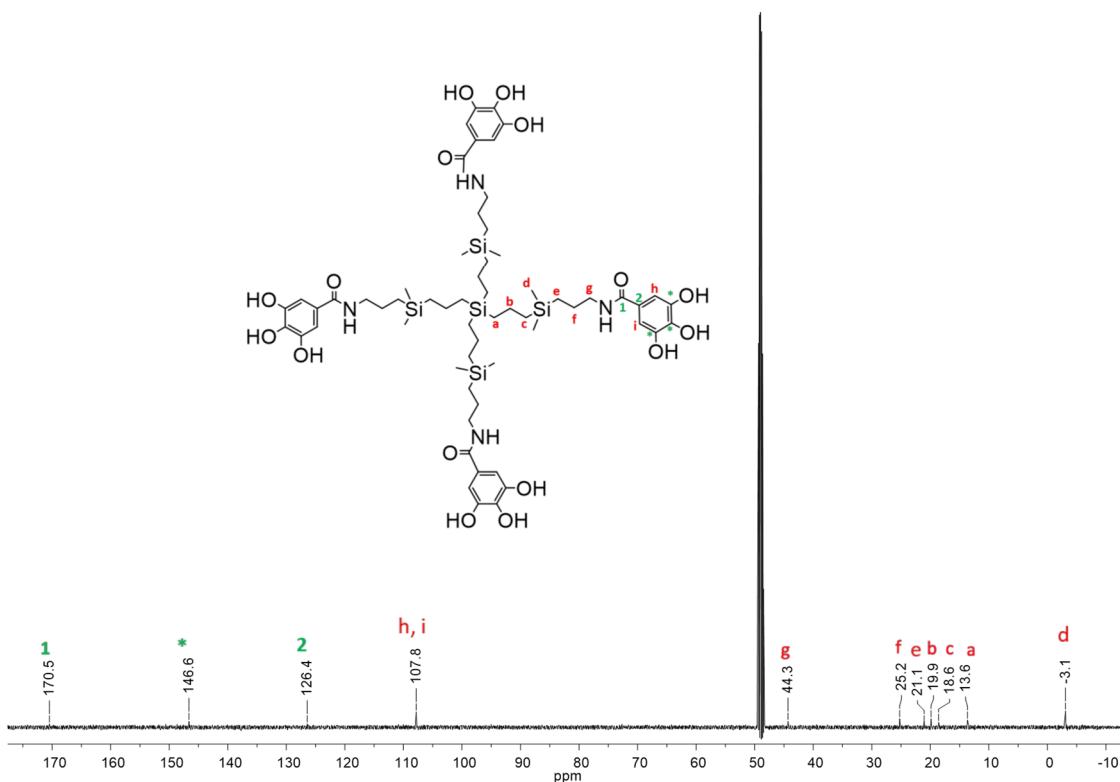


Figure S18. ¹³C-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**3**)

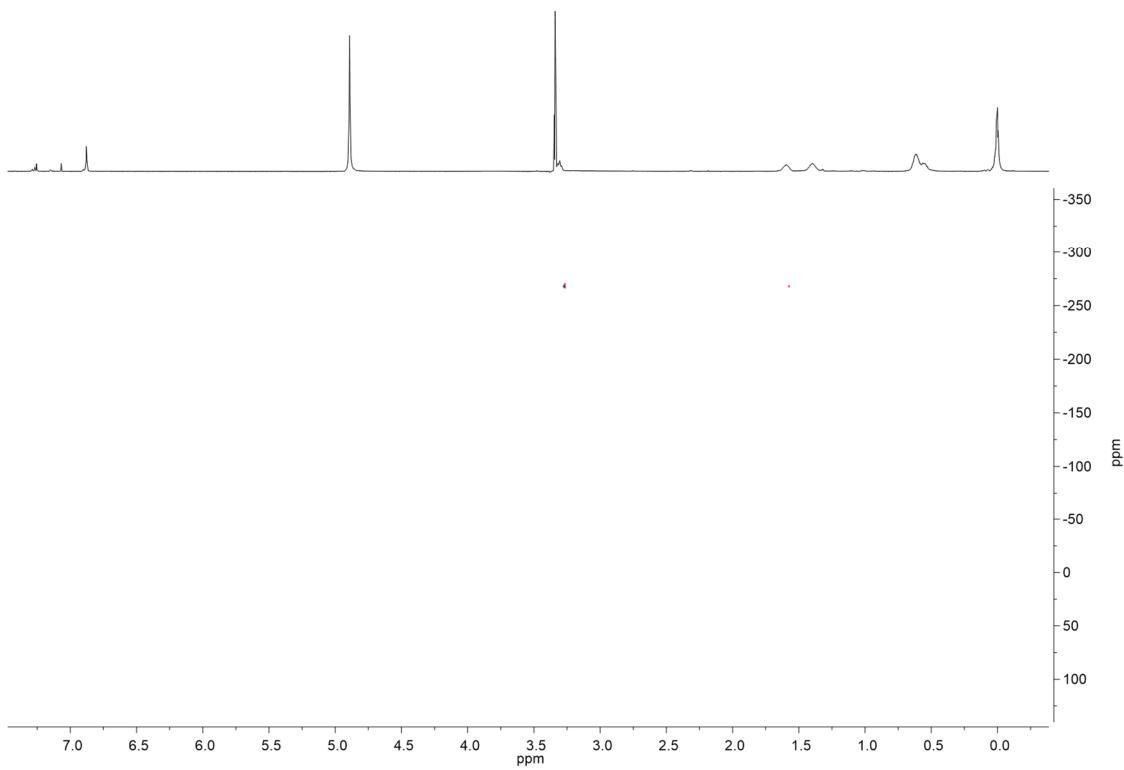


Figure S19. $\{^1\text{H}-^{15}\text{N}\}$ -HMBC-NMR (500 MHz, CD_3OD) of dendritic polyphenol (**3**)

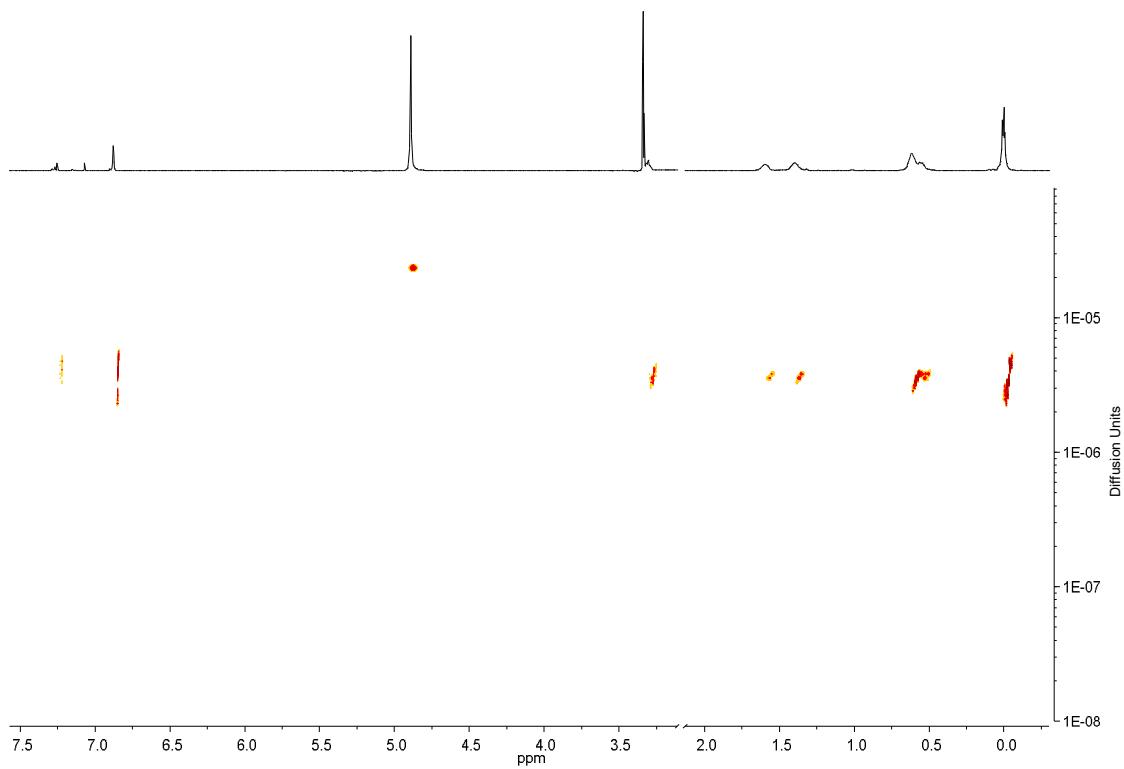


Figure S20. ^1H -DOSY-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (**3**)

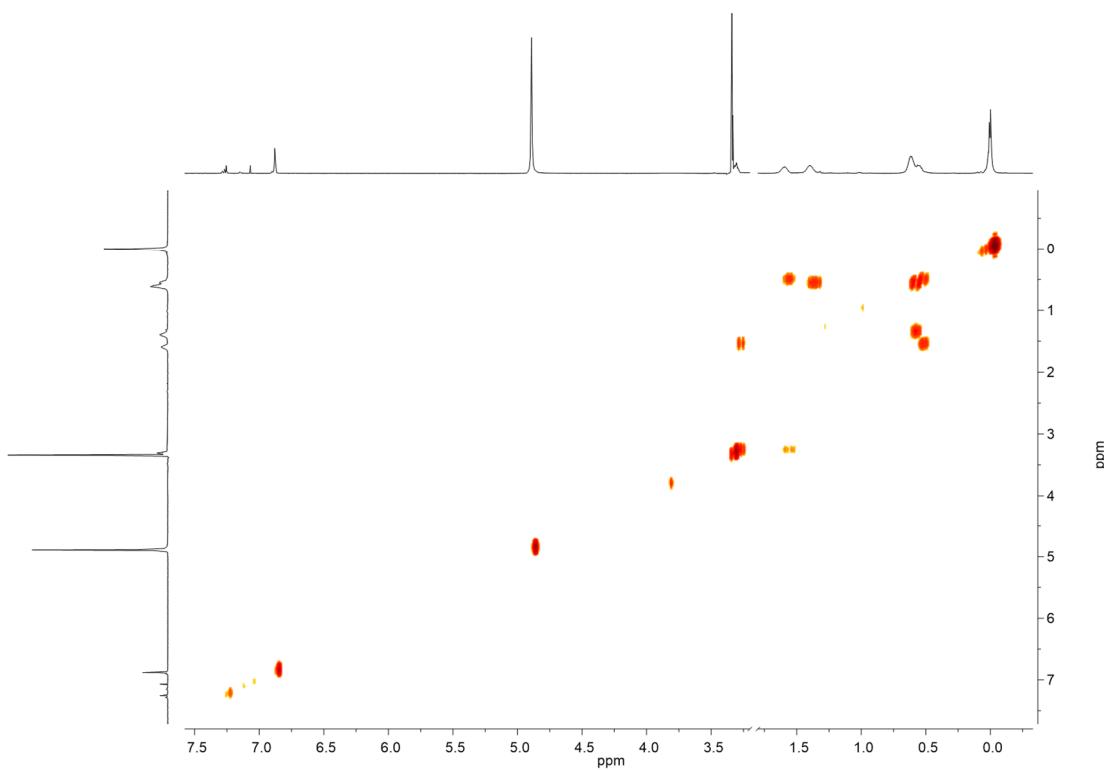


Figure S21. $\{^1\text{H}-^1\text{H}\}$ -COSY-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (3)

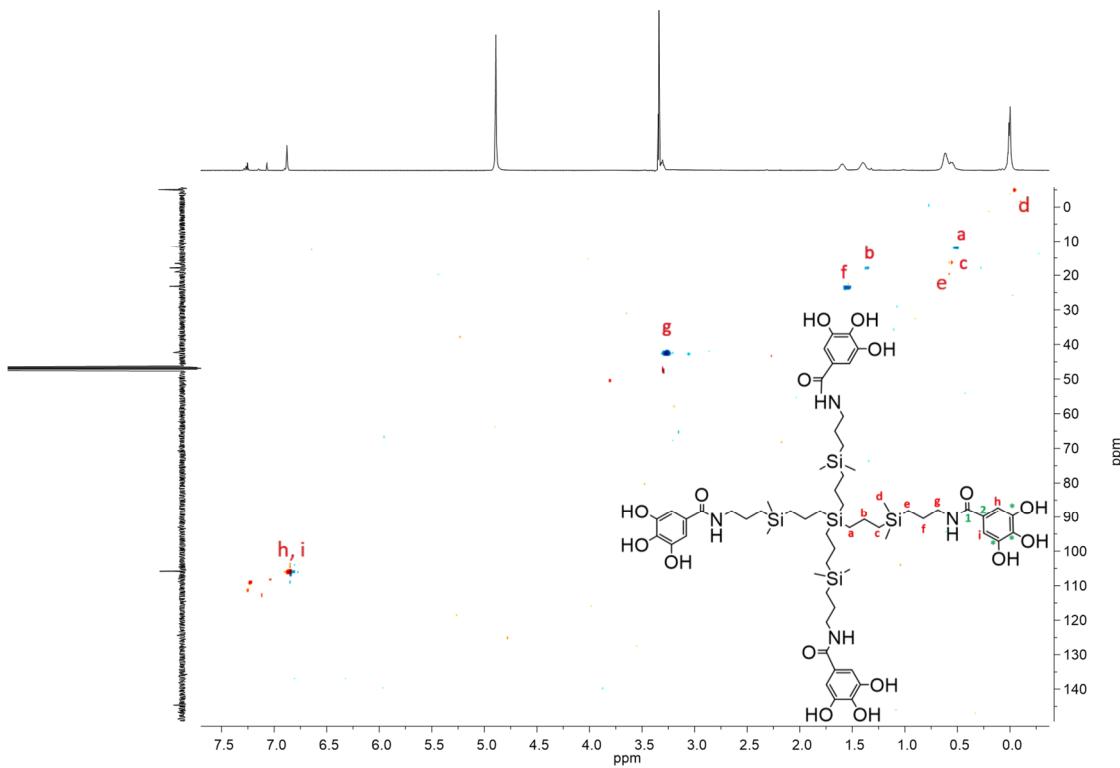


Figure S22. $\{^1\text{H}-^{13}\text{C}\}$ -HSQC-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (3)

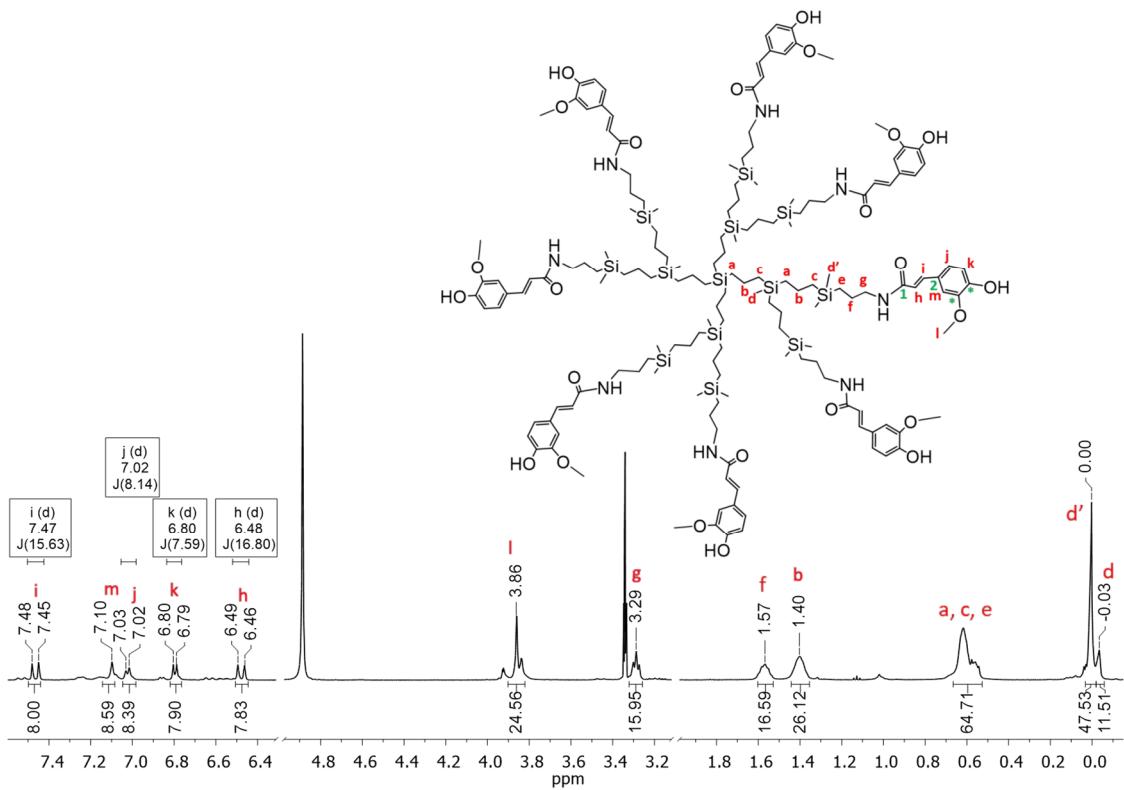


Figure S23. ^1H -NMR (500 MHz, CD_3OD) of dendritic polyphenol (**4**)

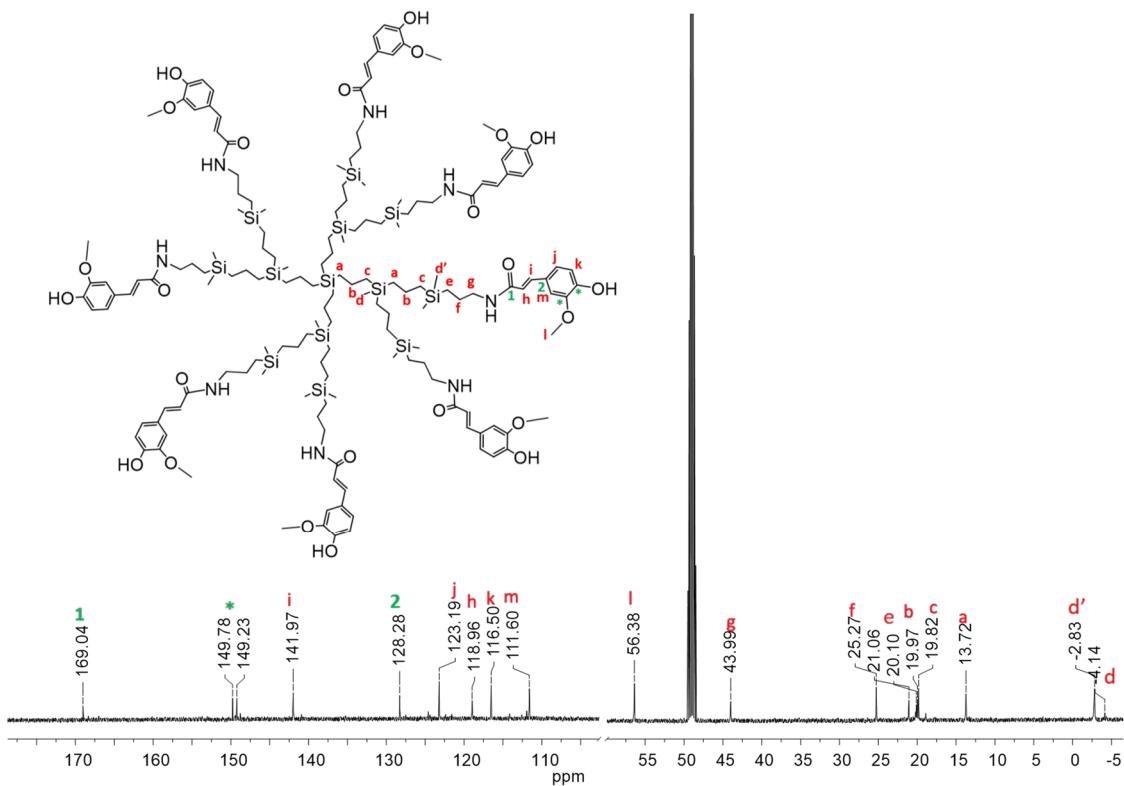


Figure S24. ^{13}C -NMR (500 MHz, CD_3OD) of dendritic polyphenol (**4**)

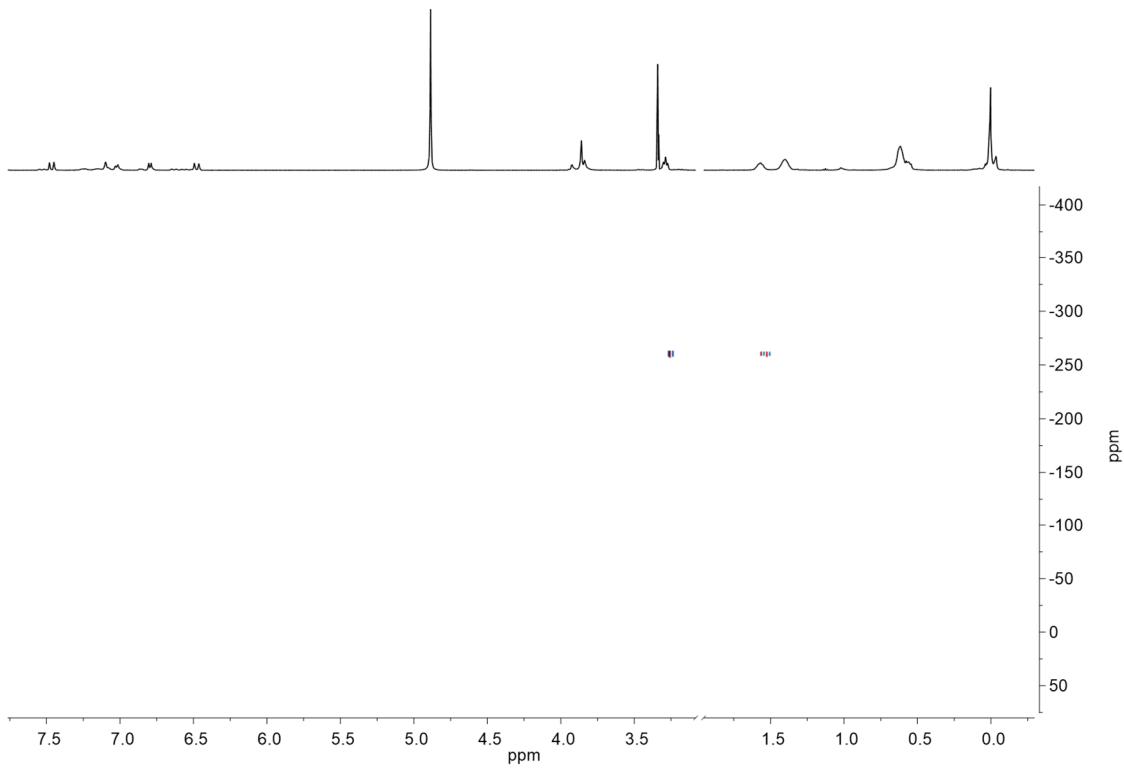


Figure S25. $\{^1\text{H}-^{15}\text{N}\}$ -HMBC-NMR (500 MHz, CD_3OD) of dendritic polyphenol (**4**)

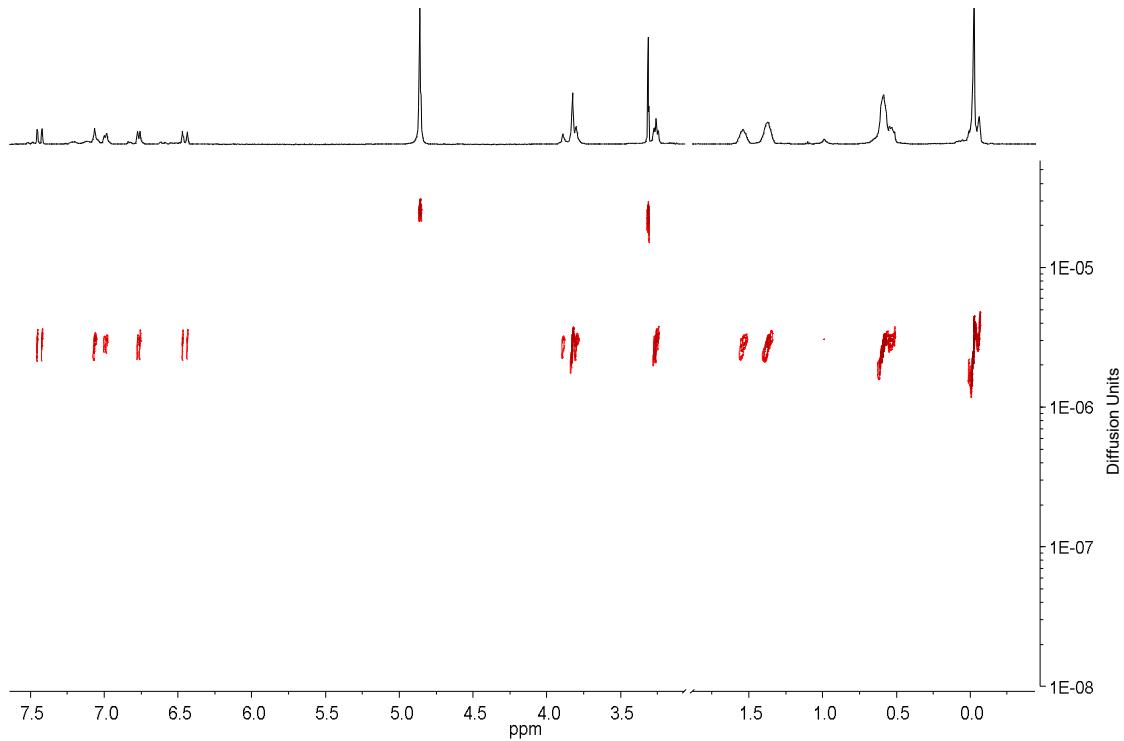


Figure S26. ^1H -DOSY-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (**4**)

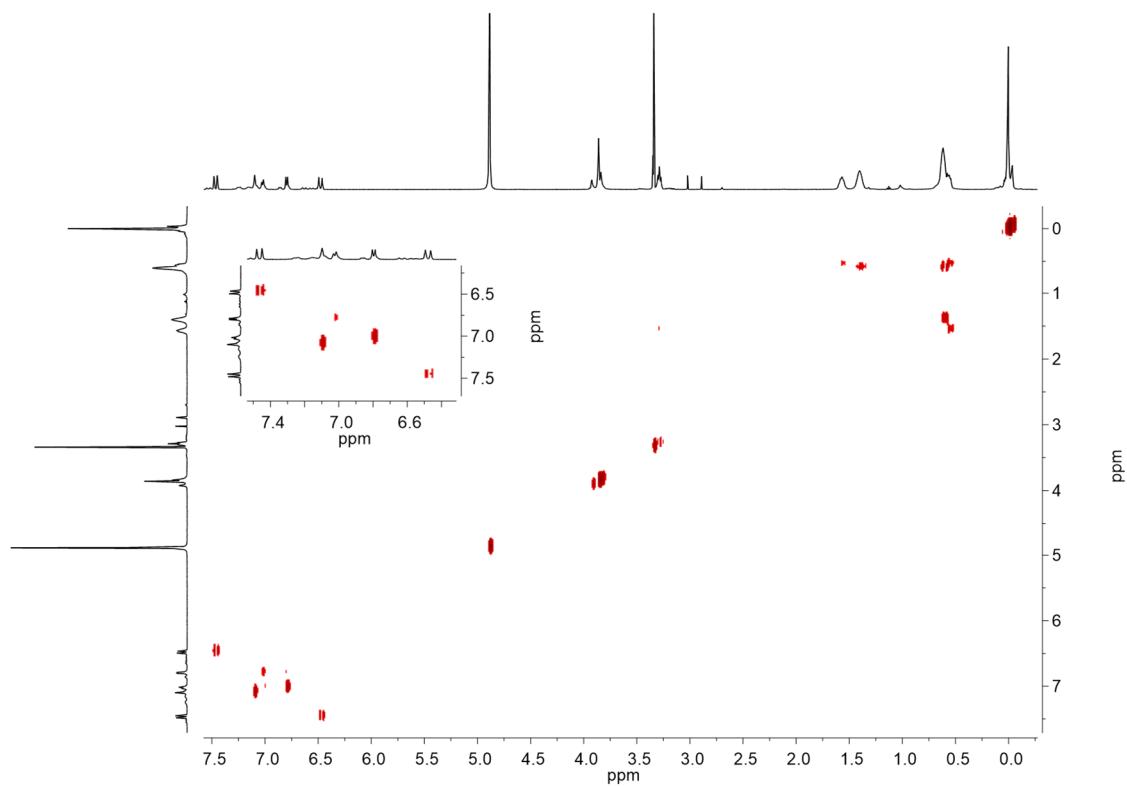


Figure S27. $\{^1\text{H}-^1\text{H}\}$ -COSY-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (4)

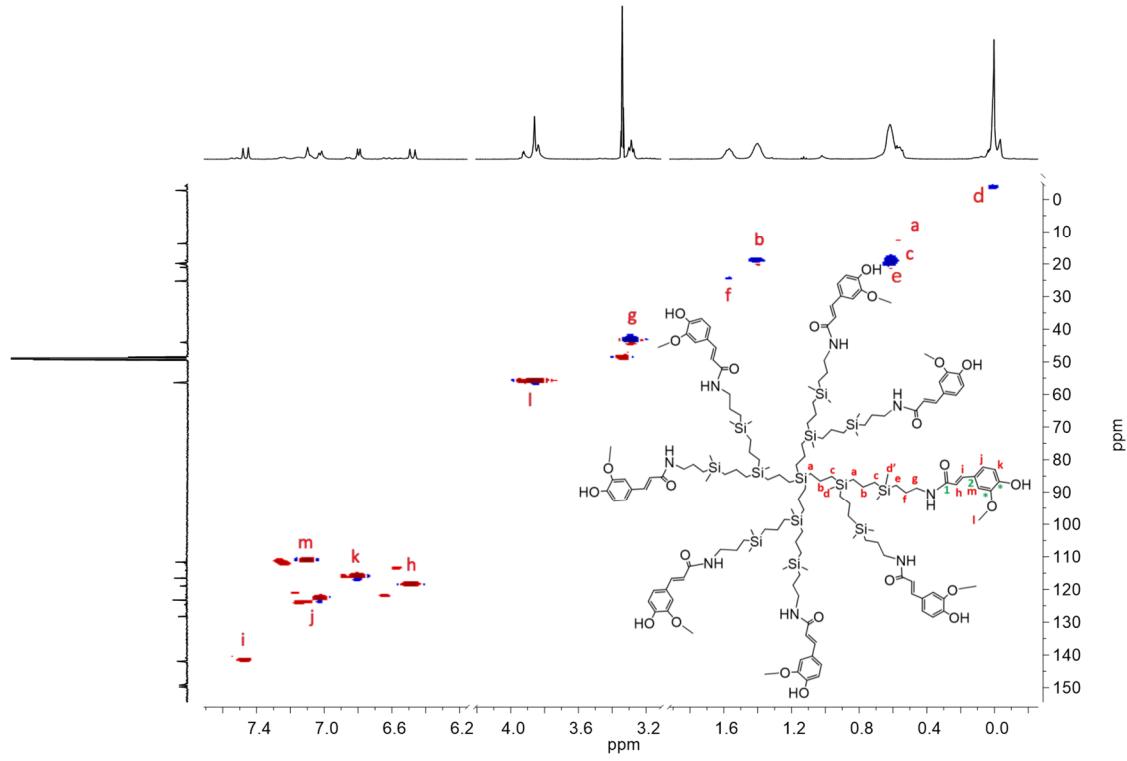
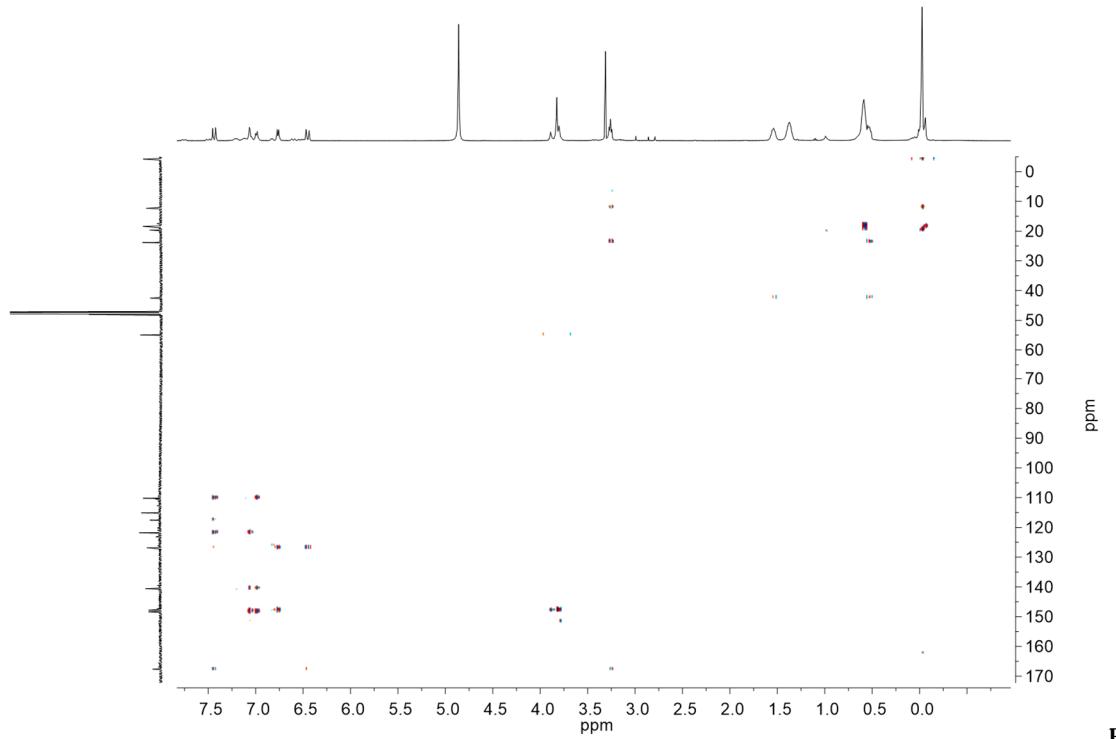


Figure S28. $\{^1\text{H}-^{13}\text{C}\}$ -HSQC-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (4)



Figure

S29. {¹H-¹³C}-HMBC-2D-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**4**)

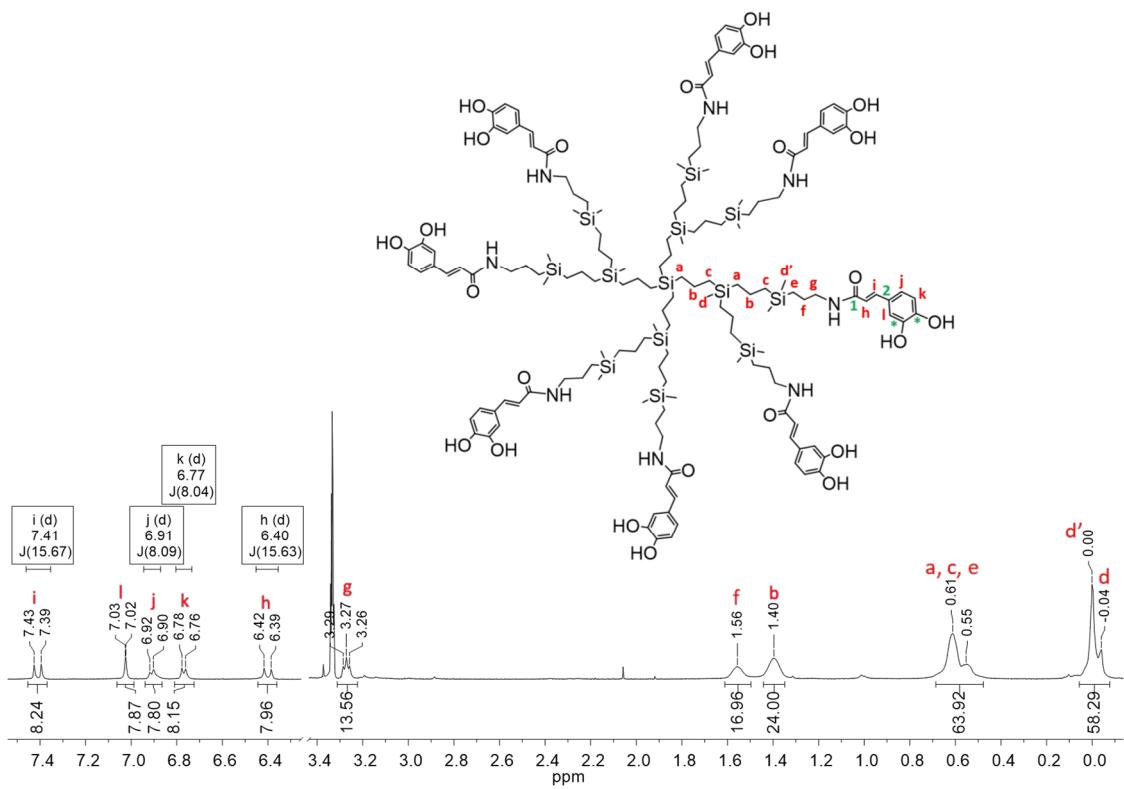


Figure S30. ¹H-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**5**)

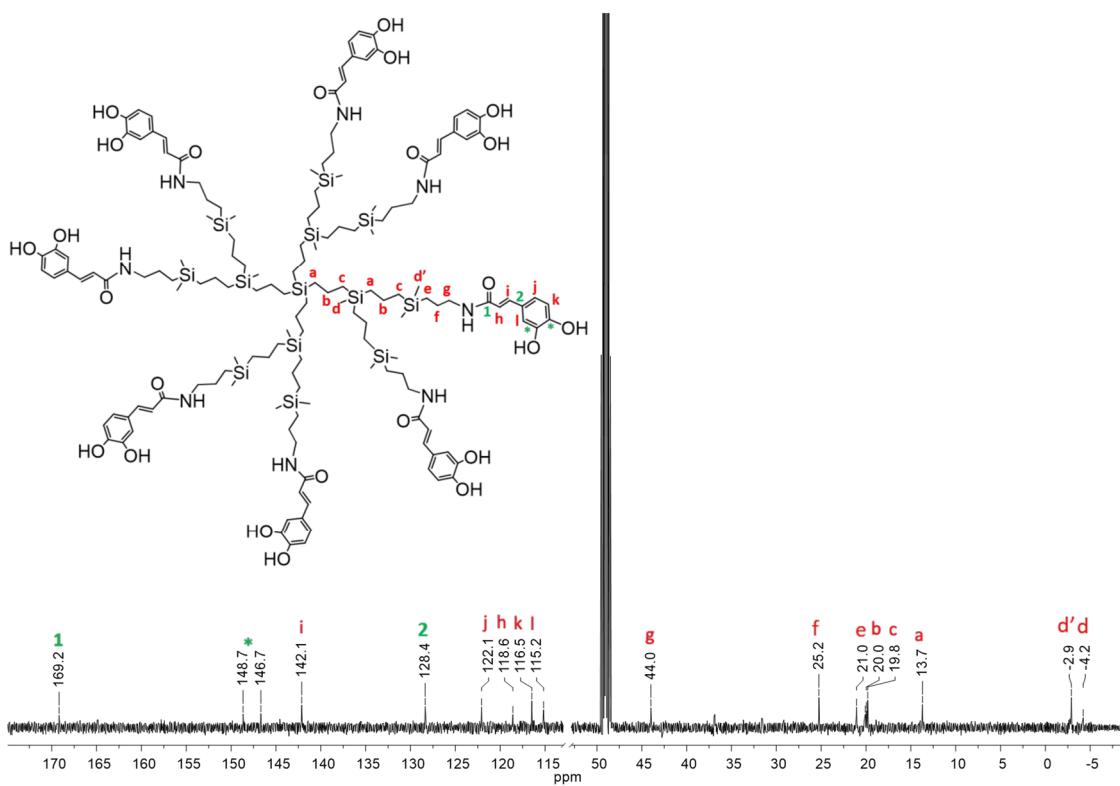


Figure S31. ^{13}C -NMR (500 MHz, CD_3OD) of dendritic polyphenol (**5**)

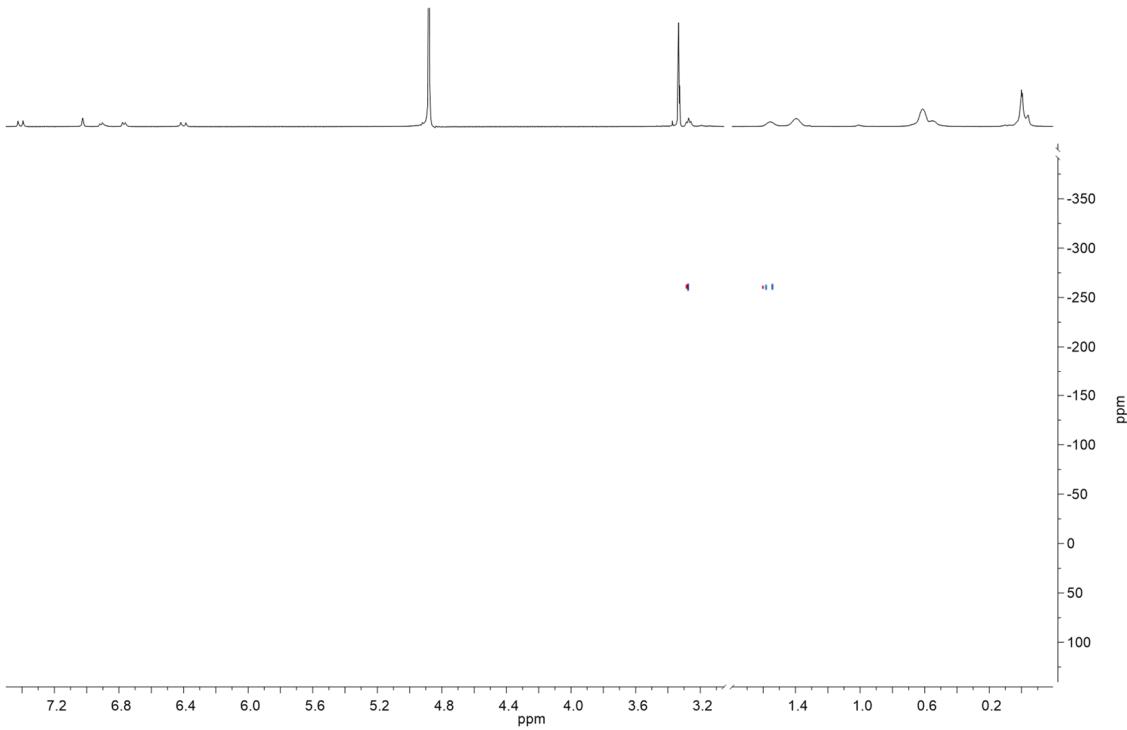


Figure S32. $\{{}^1\text{H}-{}^{15}\text{N}\}$ -HMBC-NMR (500 MHz, CD_3OD) of dendritic polyphenol (**5**)

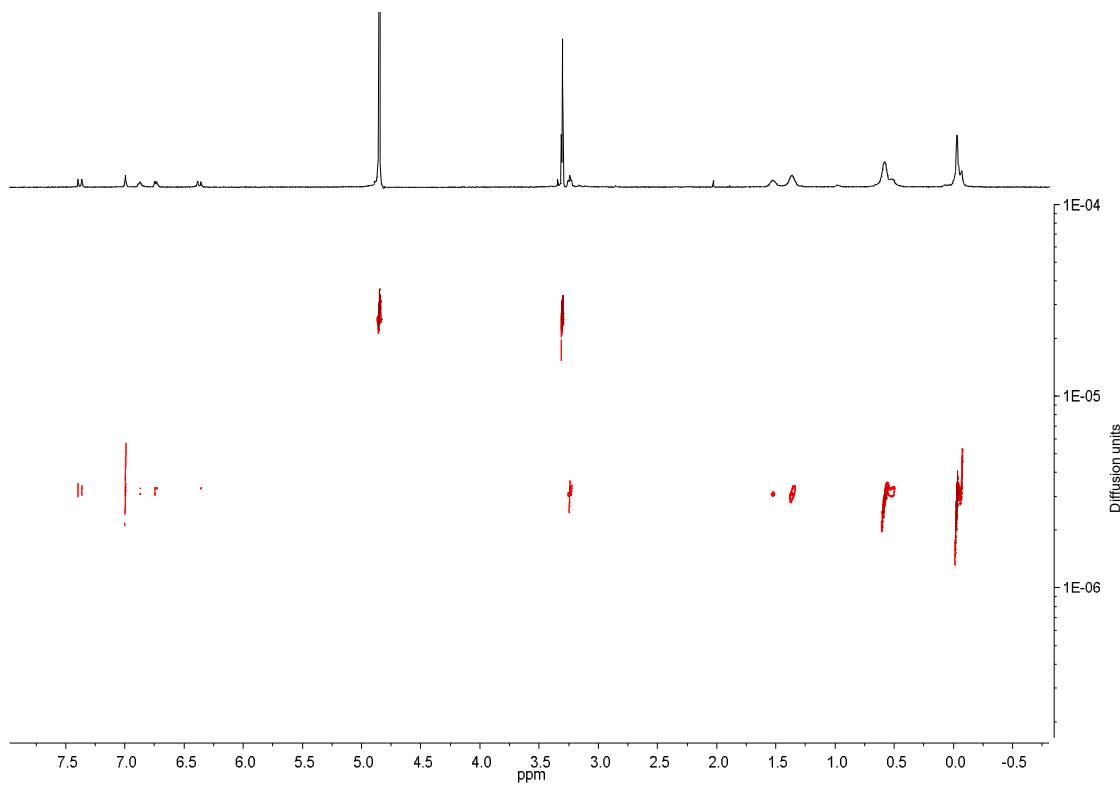


Figure S33. ^1H -DOSY-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (**5**)

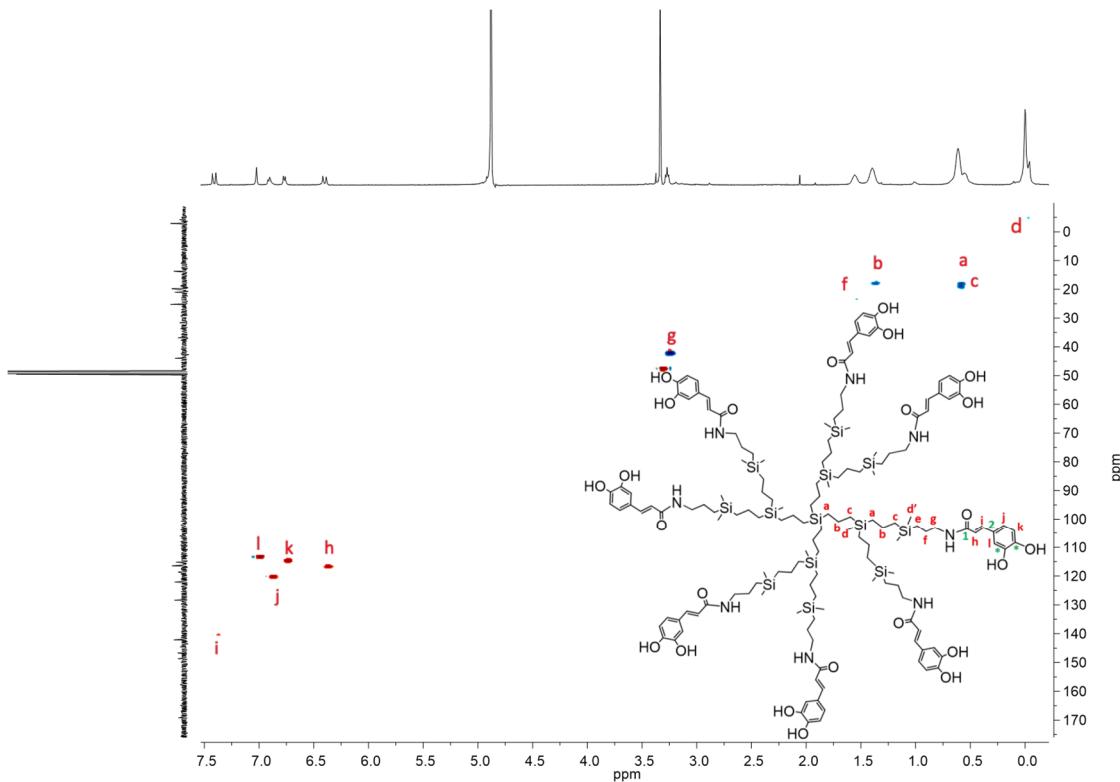


Figure S34. $\{^1\text{H}-^{13}\text{C}\}$ -HSQC-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (**5**)

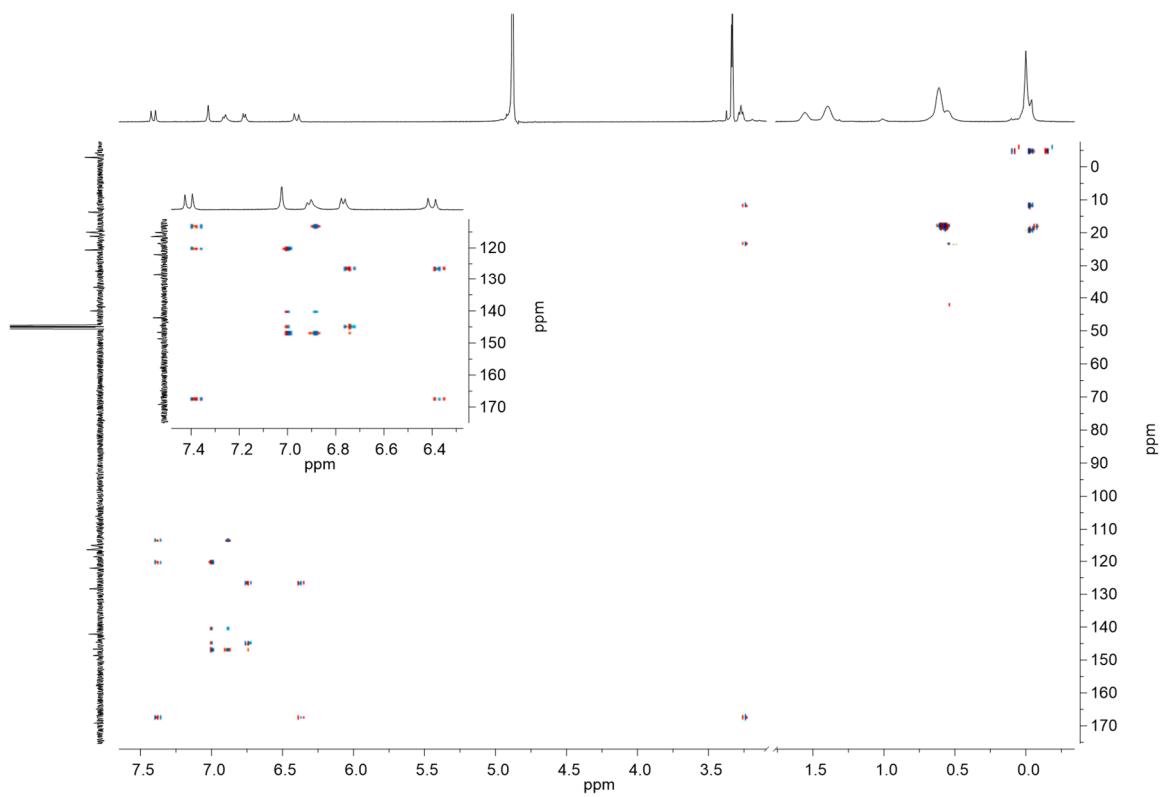


Figure S35. {¹H-¹³C}-HMBC-2D-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**5**)

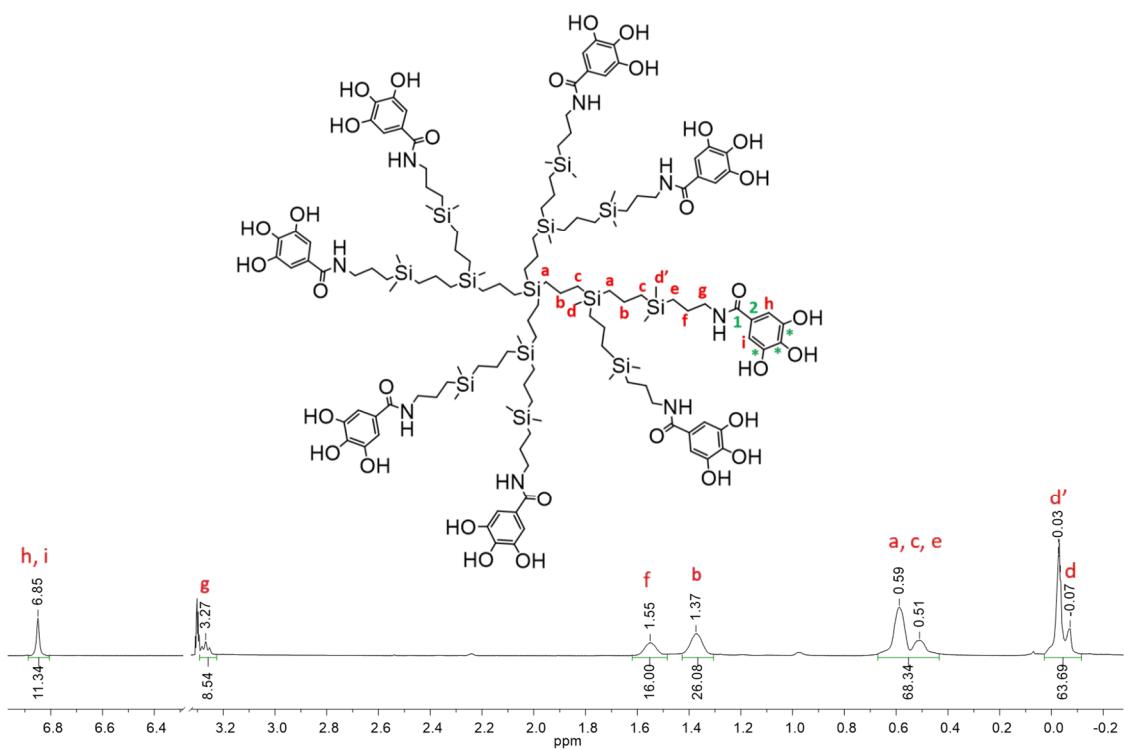


Figure S36. ¹H-NMR (500 MHz, CD₃OD) of dendritic polyphenol (**6**)

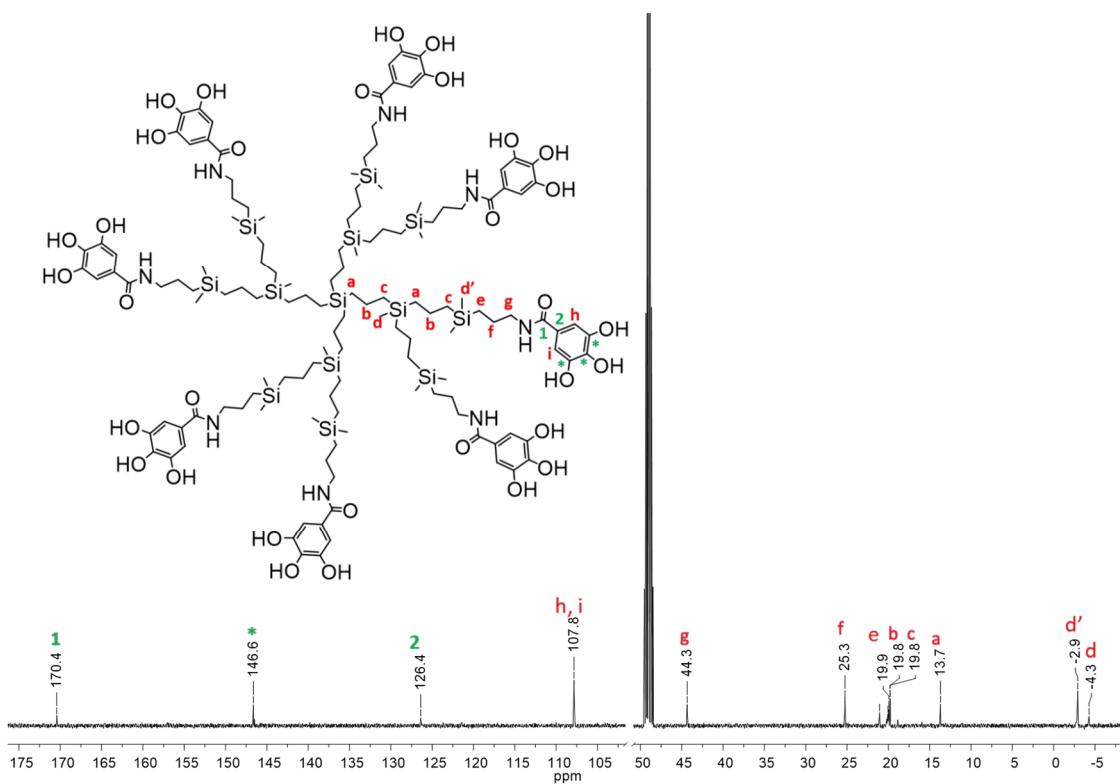


Figure S37. ^{13}C -NMR (500 MHz, CD_3OD) of dendritic polyphenol (**6**)

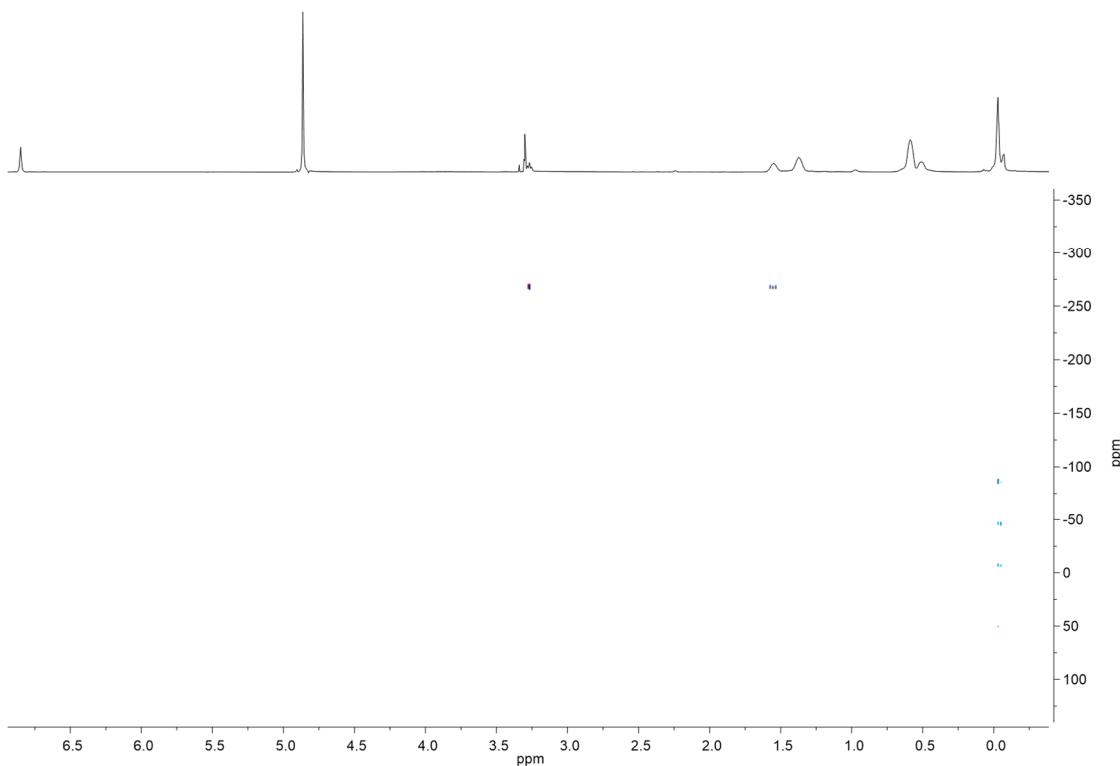


Figure S38. $\{\mathbf{H}-^{15}\mathbf{N}\}$ -HMBC-NMR (500 MHz, CD_3OD) of dendritic polyphenol (**6**)

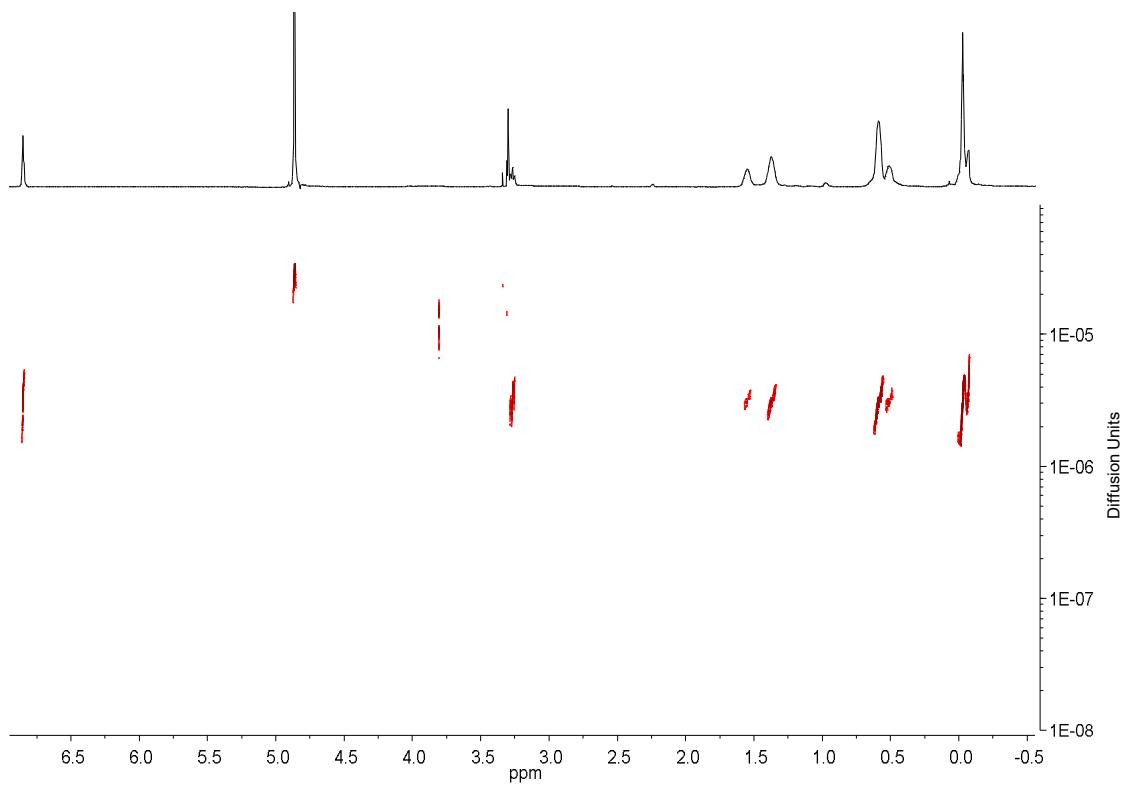


Figure S39. ^1H -DOSY-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (6)

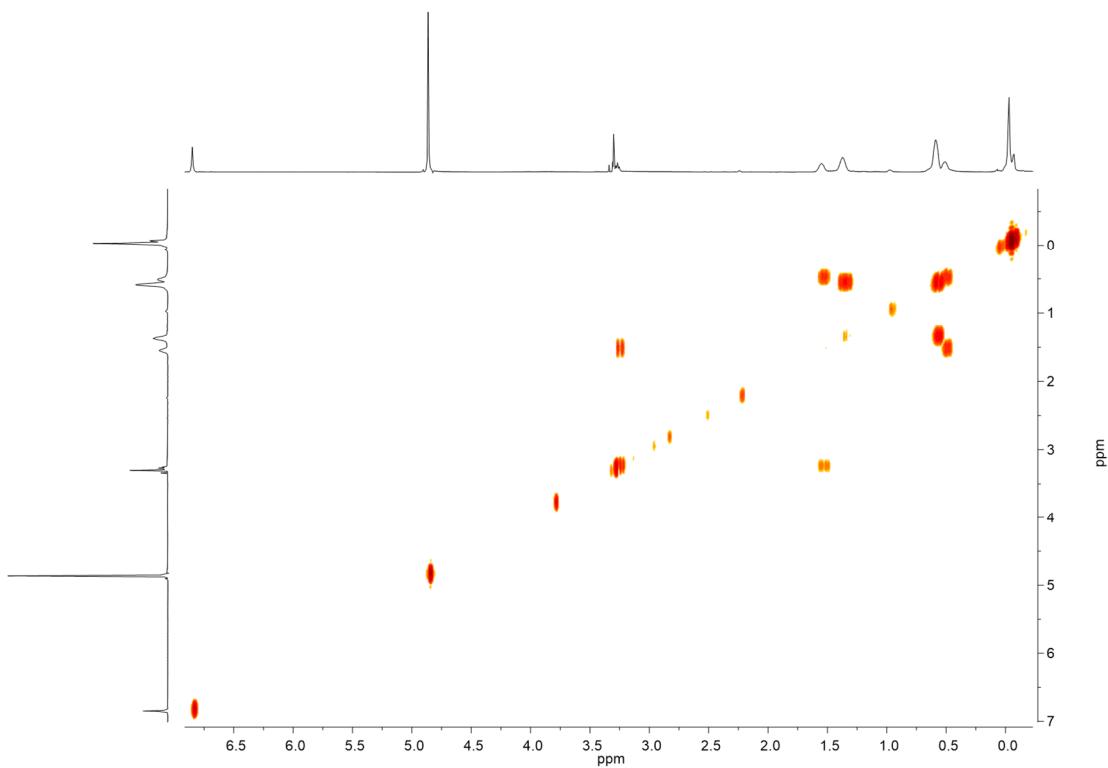


Figure S40. $\{^1\text{H-}^1\text{H}\}$ -COSY-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (6)

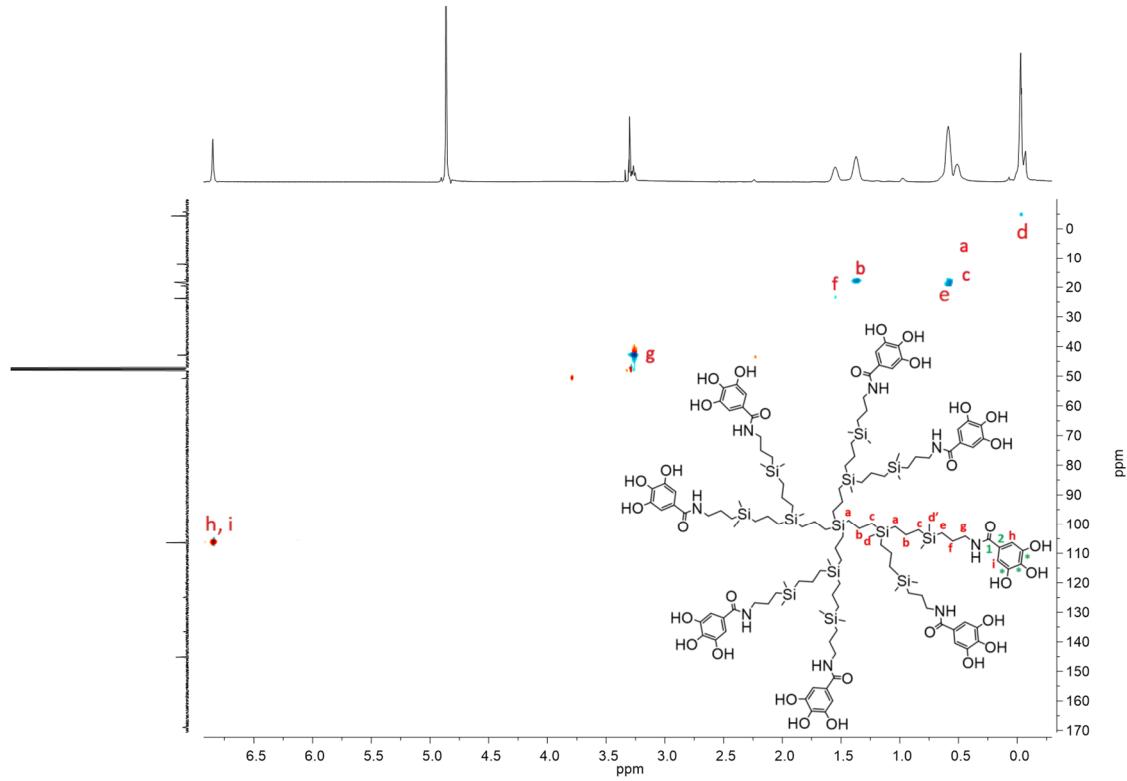
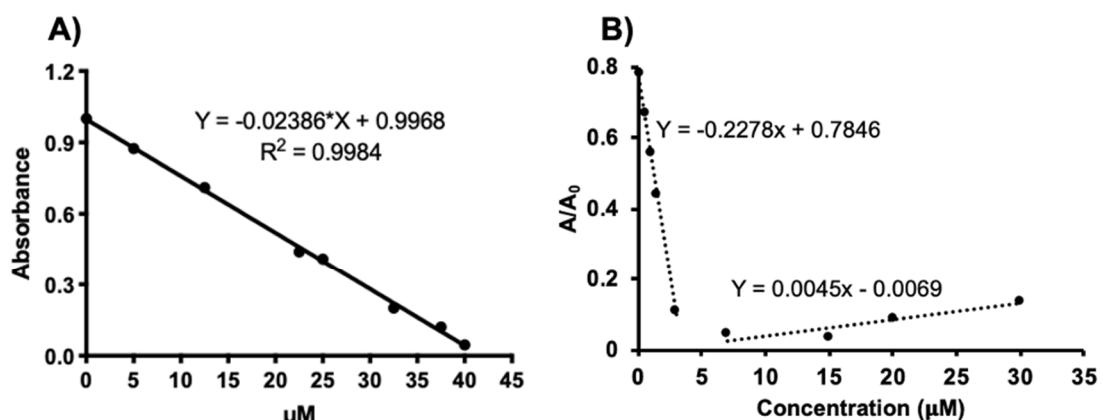


Figure S41. $\{^1\text{H}-^{13}\text{C}\}$ -HSQC-2D-NMR (500 MHz, CD_3OD) of dendritic polyphenol (6)

DPPH



FRAP

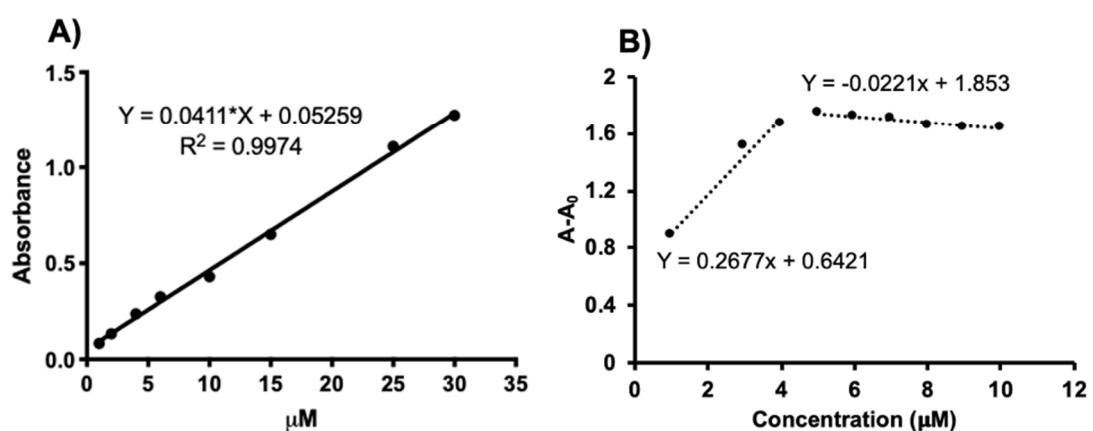


Figure S42. A) A representative calibration curve of inhibition of DPPH by Trolox standards. Representative results of at least three independent experiments are shown. B) Graphics with equations line for compound G₁-[Si(CH₂)₃NH(CO)Ph(OH)₃]₄ (**3**).