

Supporting Information

***p*-Sulfonatocalix[4]arene as carrier for curcumin**

Paulpandian Muthu Mareeswaran,^{a,b} Eththilu Babu,^a Veerasamy Sathish,^a Byoungkook Kim,^c Seong Ihl Woo^b and Seenivasan Rajagopal^{a*}

^aSchool of Chemistry, Madurai Kamaraj University, Madurai, Tamil Nadu, India

^bDepartment of Chemical and Biomolecular Engineering, Korea Advanced Institute of Science and Technology, Daejeon, South Korea.

^cKAIST Research Analysis Centre, Korea Advanced Institute of Science and Technology, Daejeon, South Korea.

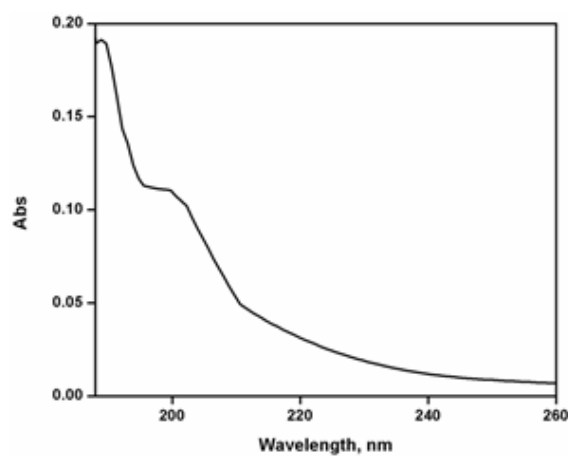


Fig S1. Absorption spectrum of *p*-SC4 (1×10^{-4} M)

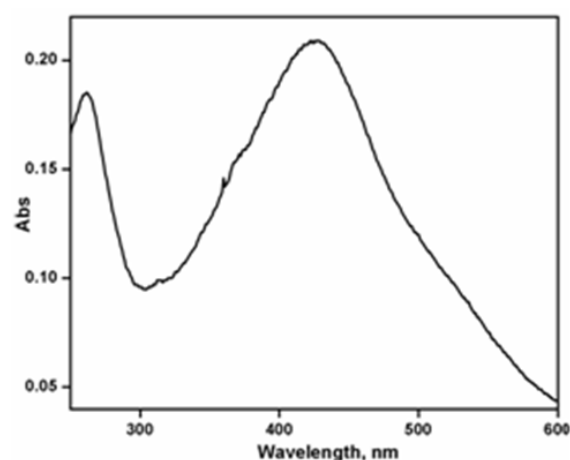


Fig S2. Absorption spectrum of curcumin (1×10^{-6} M).

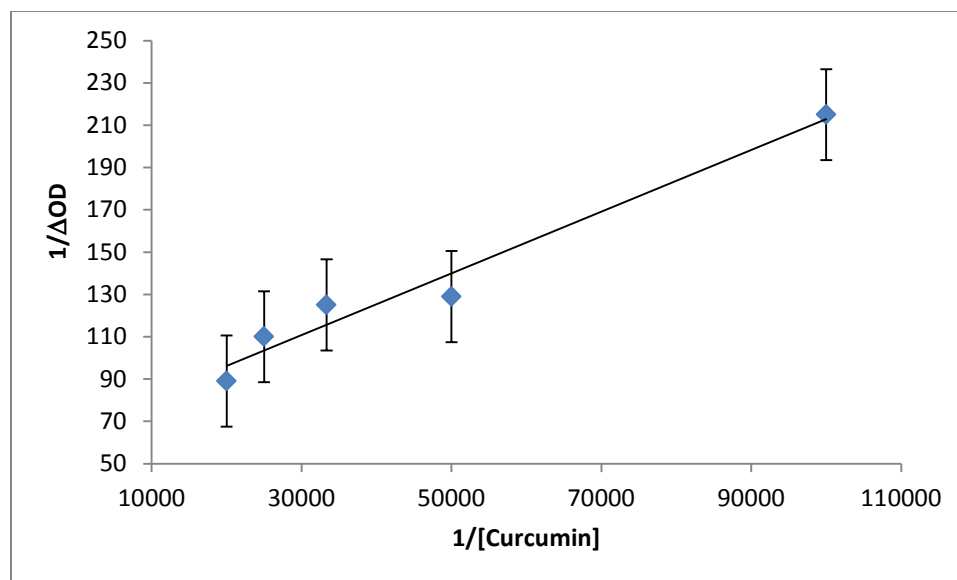


Fig S3. Benesi-Hildebrand plot of curcumin-*p*-SC4 titration by UV-visible spectrum.

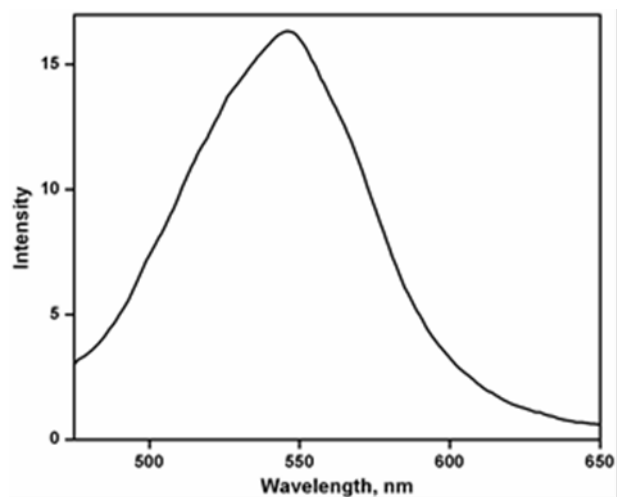


Fig S4. Emission spectrum of curcumin (1×10^{-6} M).

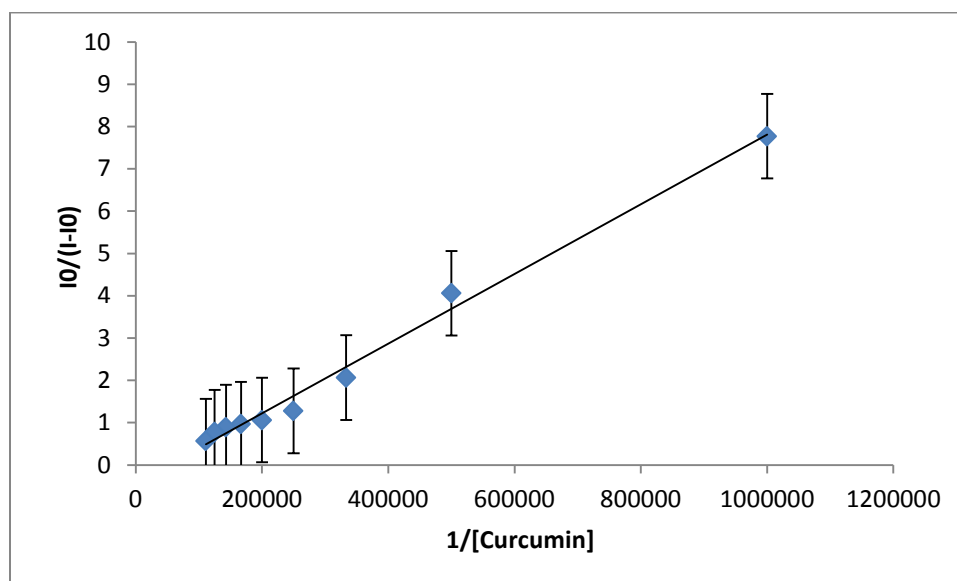


Fig S5. Modified Benesi-Hildebrand plot of curcumin-*p*-SC4 titration by emission spectrum.

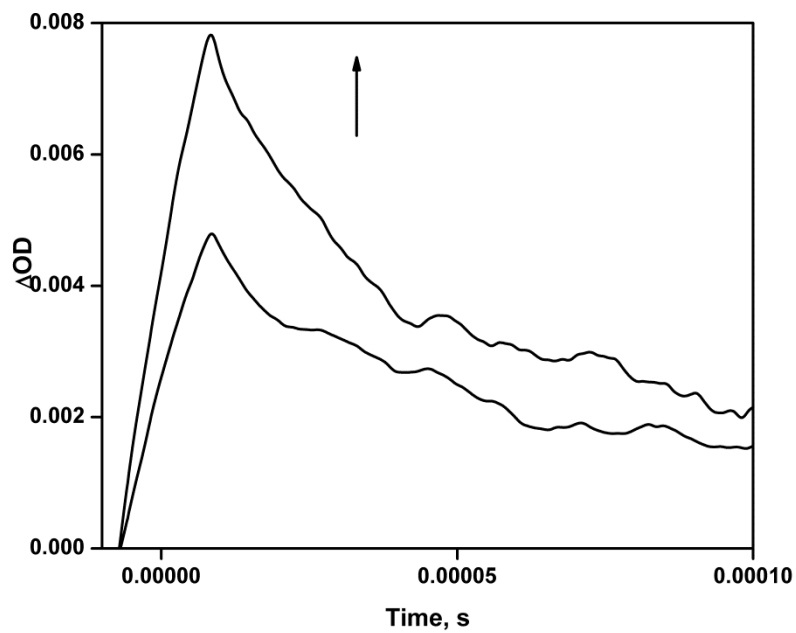


Fig. S6. Kinetics of decay of curcumin in the absence and presence of *p*-SC4 at 500 nm.

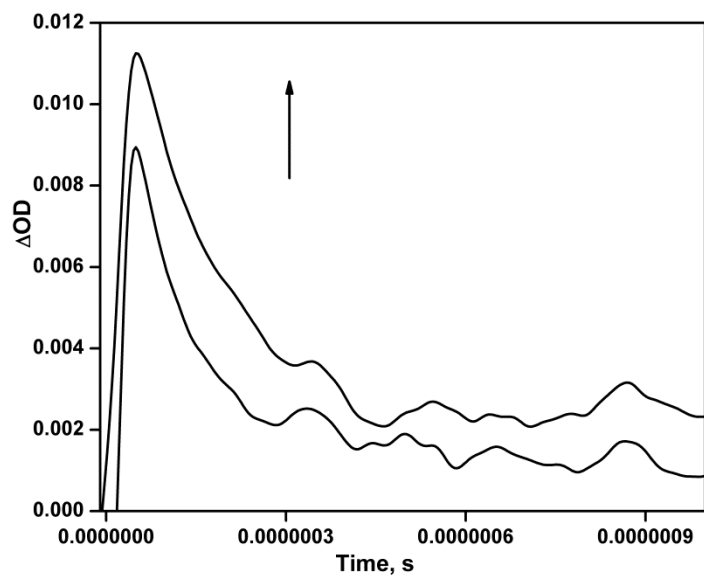


Fig. S7. Kinetics of decay of curcumin in the absence and presence of *p*-SC4 at 680 nm.

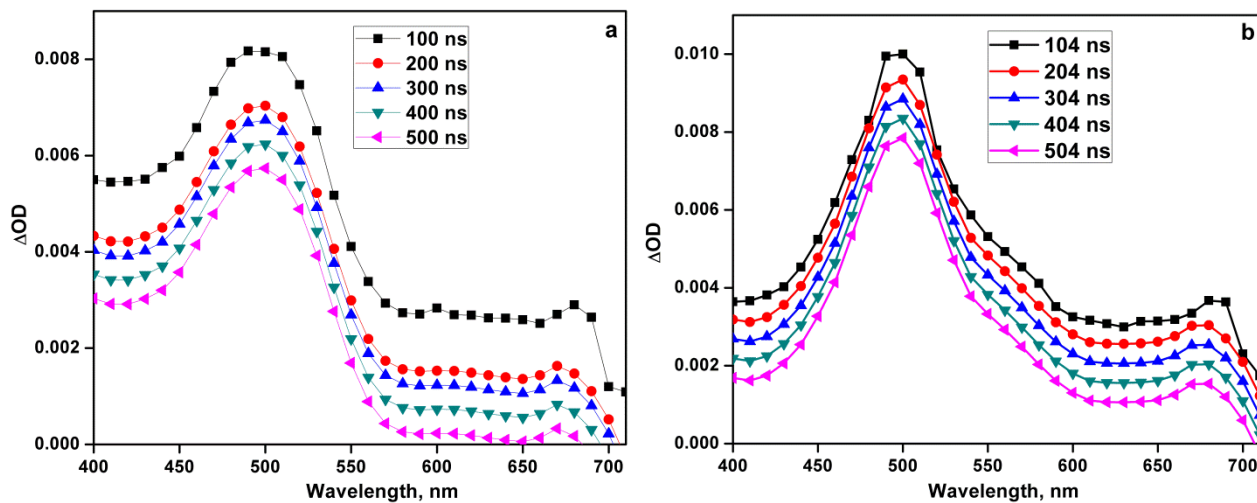


Fig. S8. Transient absorption spectra of (a) curcumin at various time scales, and (b) curcumin-*p*-SC4 at various time scales.

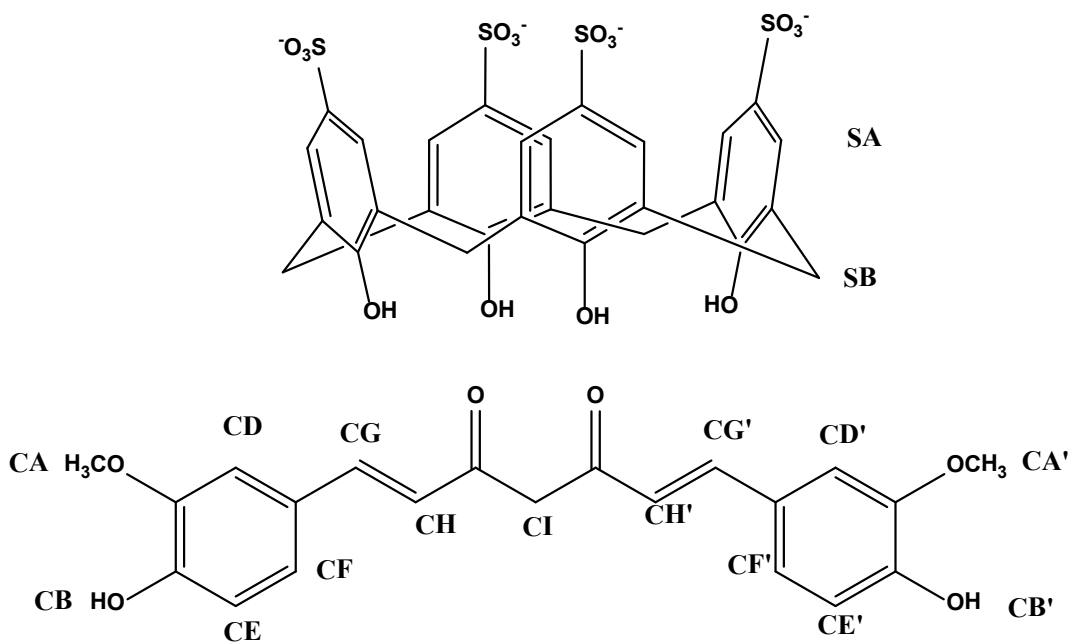


Fig. S9. Naming for proton position in the structure of *p*-SC4 and curcumin

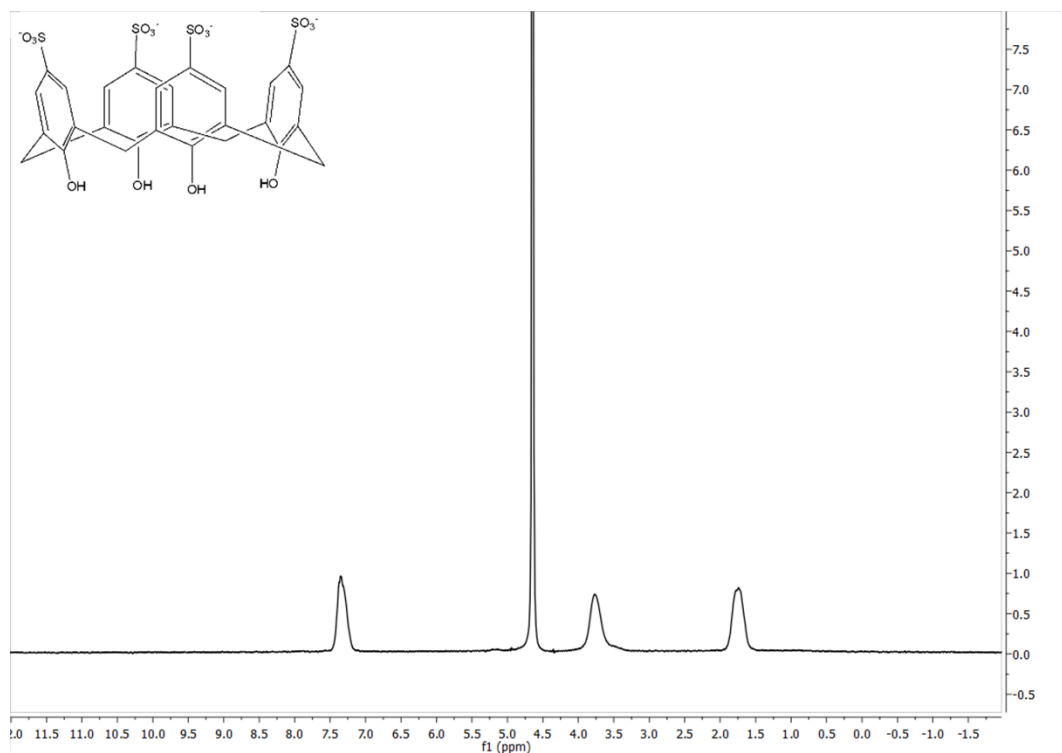


Fig. S10. ¹H NMR spectrum of p-SC4 in D₂O/CD₃CN (70/30 %) with few drops of CD₃COOD.

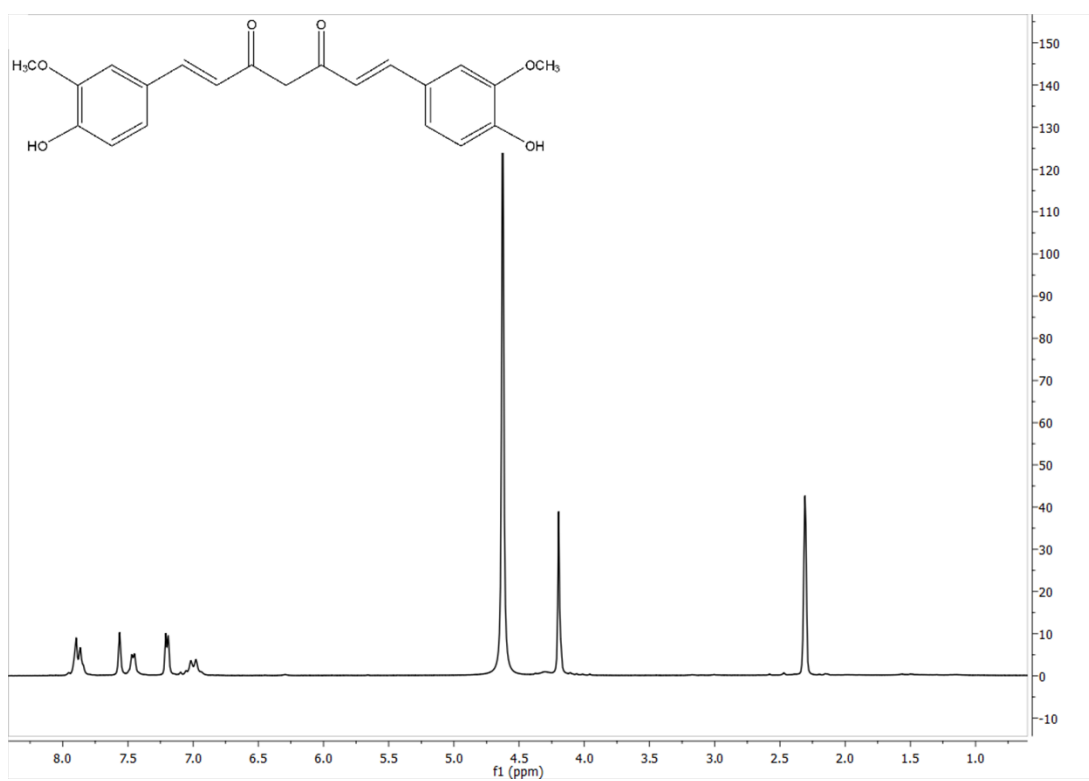


Fig. S11. ¹H NMR spectrum of curcumin in D₂O/CD₃CN (70/30 %) with few drops of CD₃COOD.

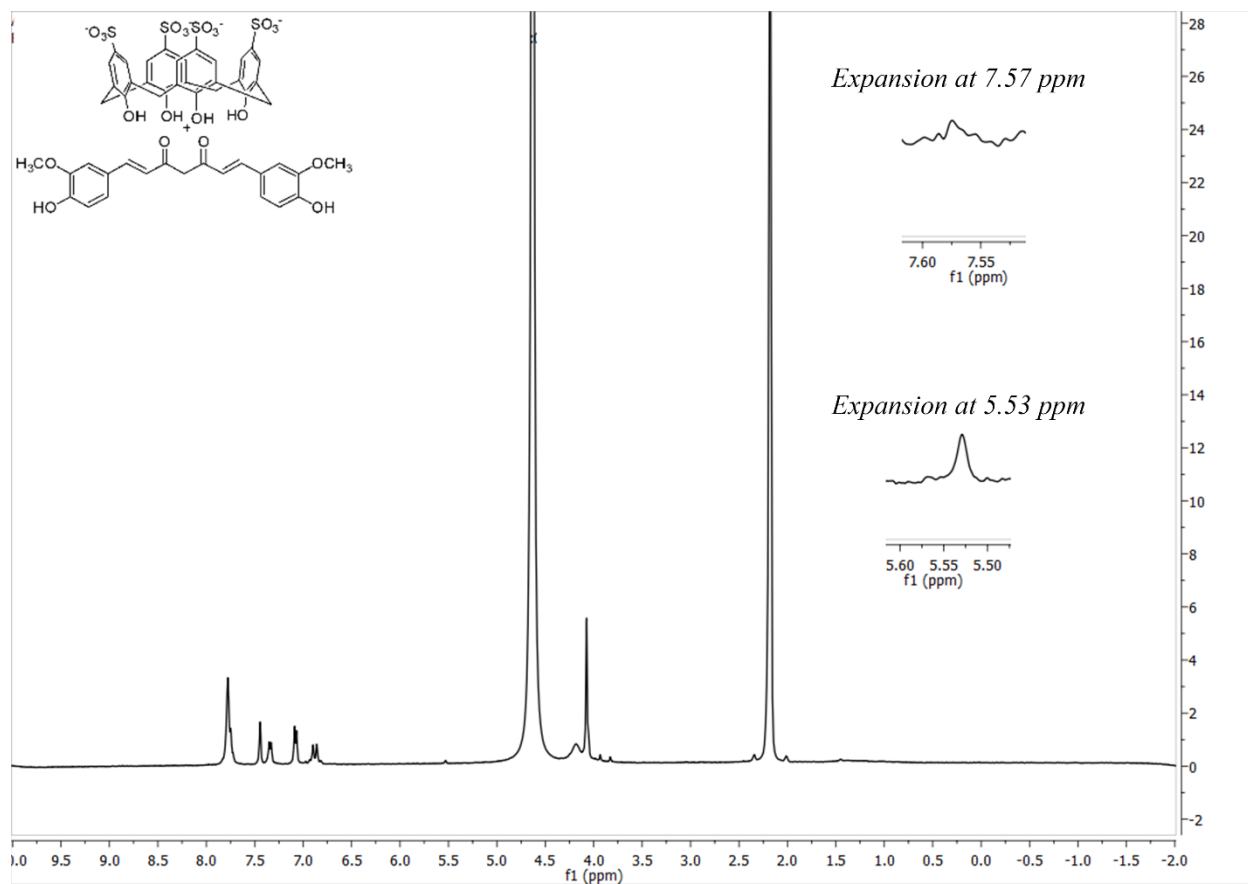


Fig. S12. ^1H NMR spectrum of p-SC4-curcumin in $\text{D}_2\text{O}/\text{CD}_3\text{CN}$ (70/30 %) with few drops of CD_3COOD .

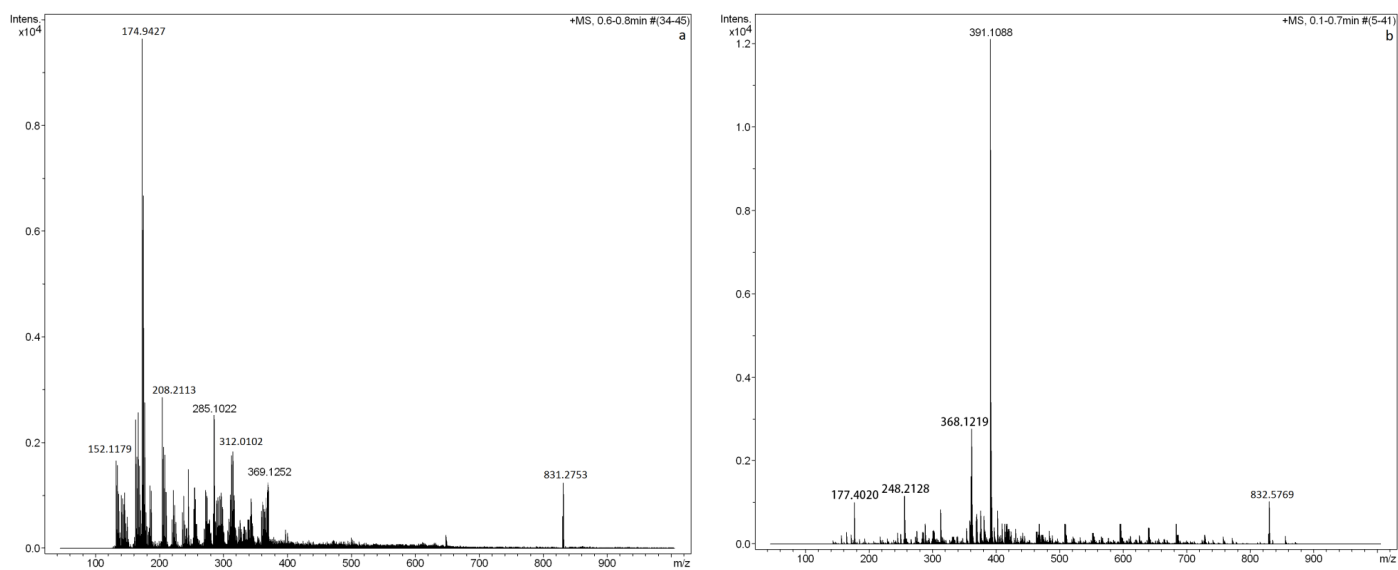


Fig. S13. ESI-MS spectra of 1:1 mixture of curcumin (10^{-3} M) and p-SC4 (10^{-3} M) at (a) pH 9.2 and (b) pH 3.

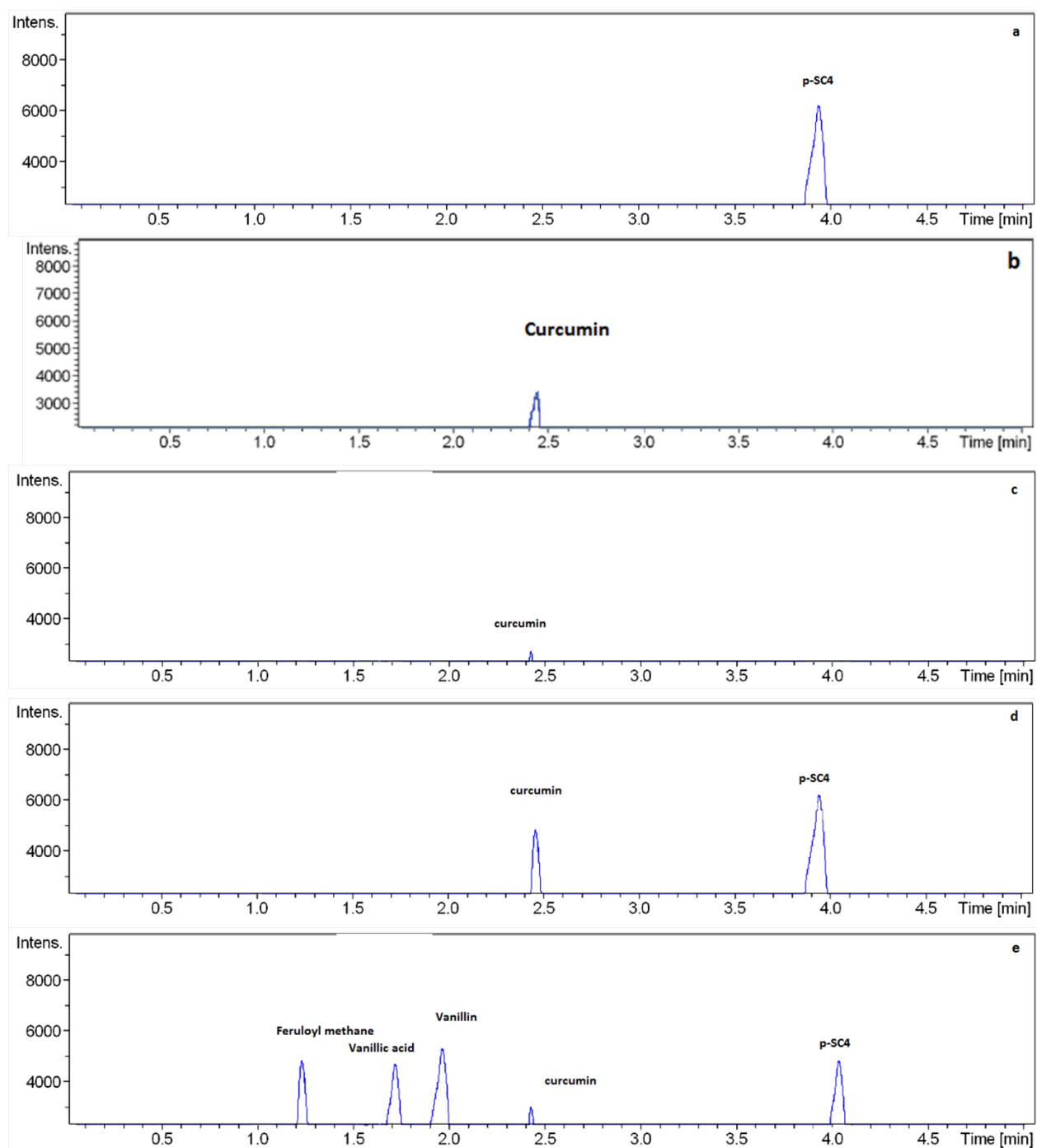


Fig. S14. HTLC chromatograms of (a) p-SC4 (10^{-3} M) at pH 3, (b) curcumin (5 mg in 10 ml water with 1% acetonitrile) at pH 3, (c) curcumin (5 mg in 10 ml), (d) curcumin in p-SC4 solution (5 mg in 10 ml of p-SC4 (10^{-3} M) solution) at pH 3 and (e) curcumin in p-SC4 solution (5 mg in 10 ml of p-SC4 (10^{-3} M) solution) at pH 9.2