Rational design of amphiphilic pyrrolidinium derivatives: structure–activity relationships and alkyl chain tuning for superior antimicrobial activity

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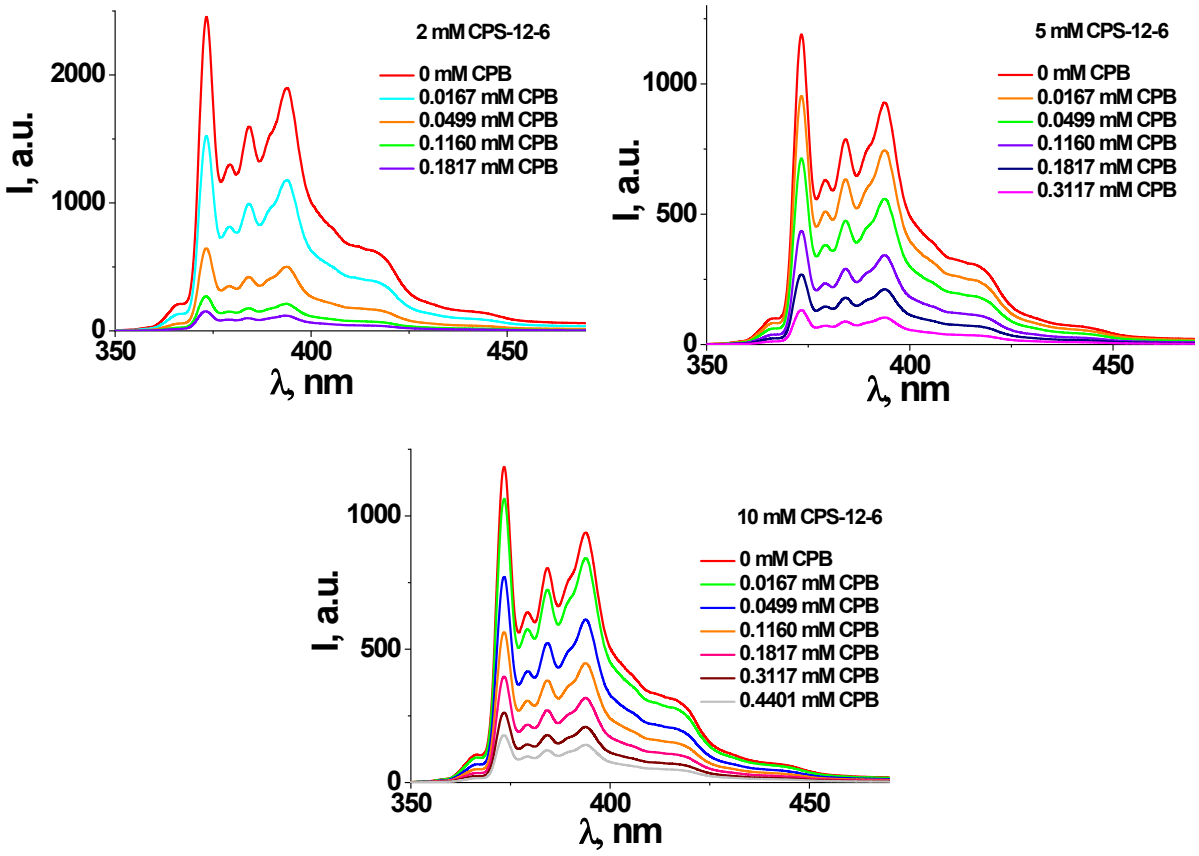

Fig. S1. Fluorescence quenching spectra of pyrene depending on the CPB concentration for CPS-12-6, 25 °C.

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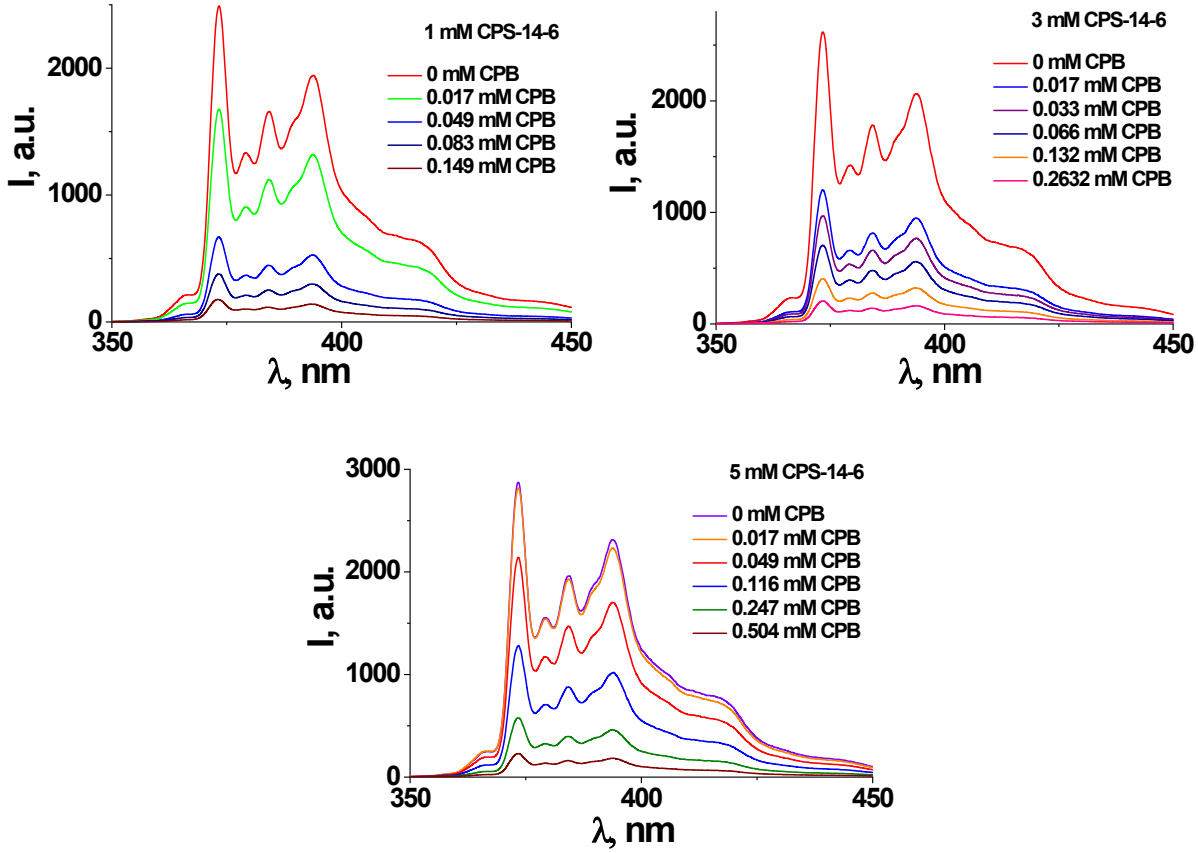


Fig. S2. Fluorescence quenching spectra of pyrene depending on the CPB concentration for CPS-14-6, 25 °C.

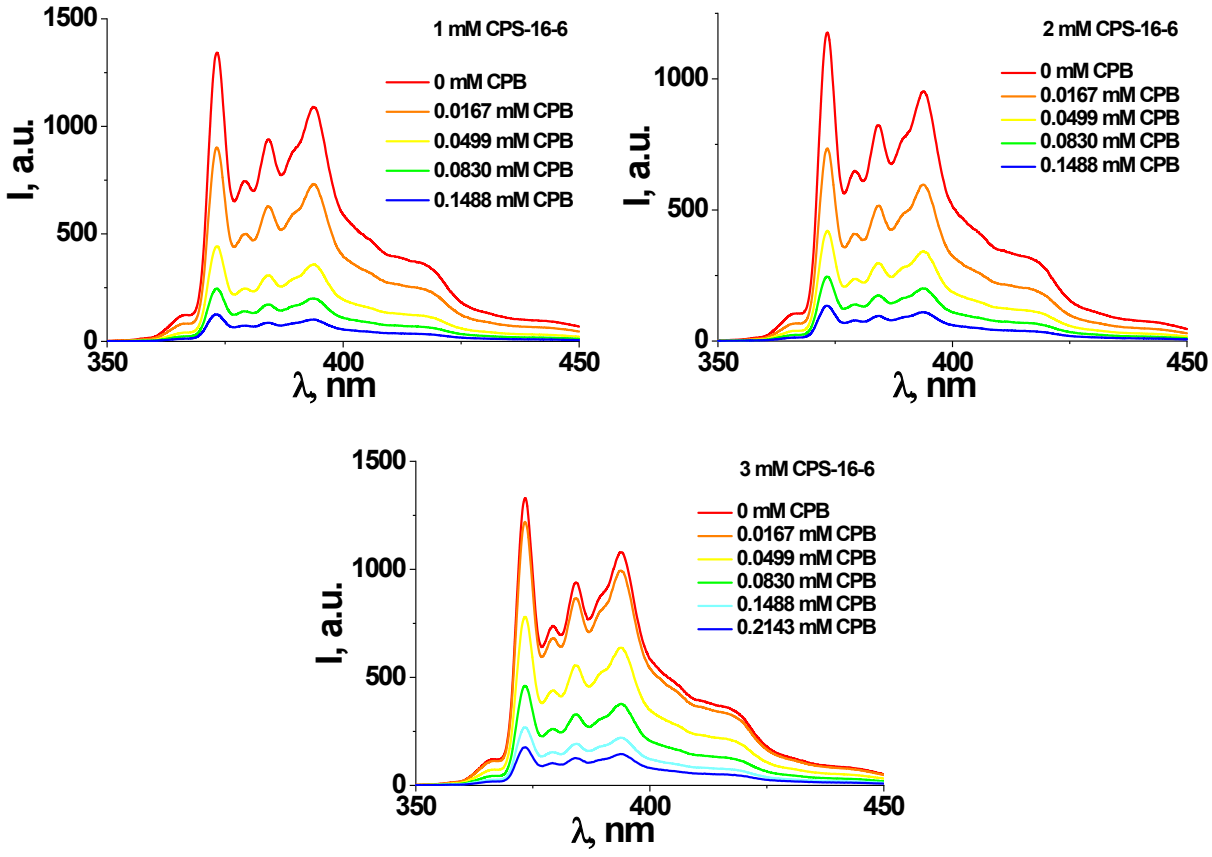


Fig. S.3. Fluorescence quenching spectra of pyrene depending on the CPB concentration for CPS-16-6, 25 °C.

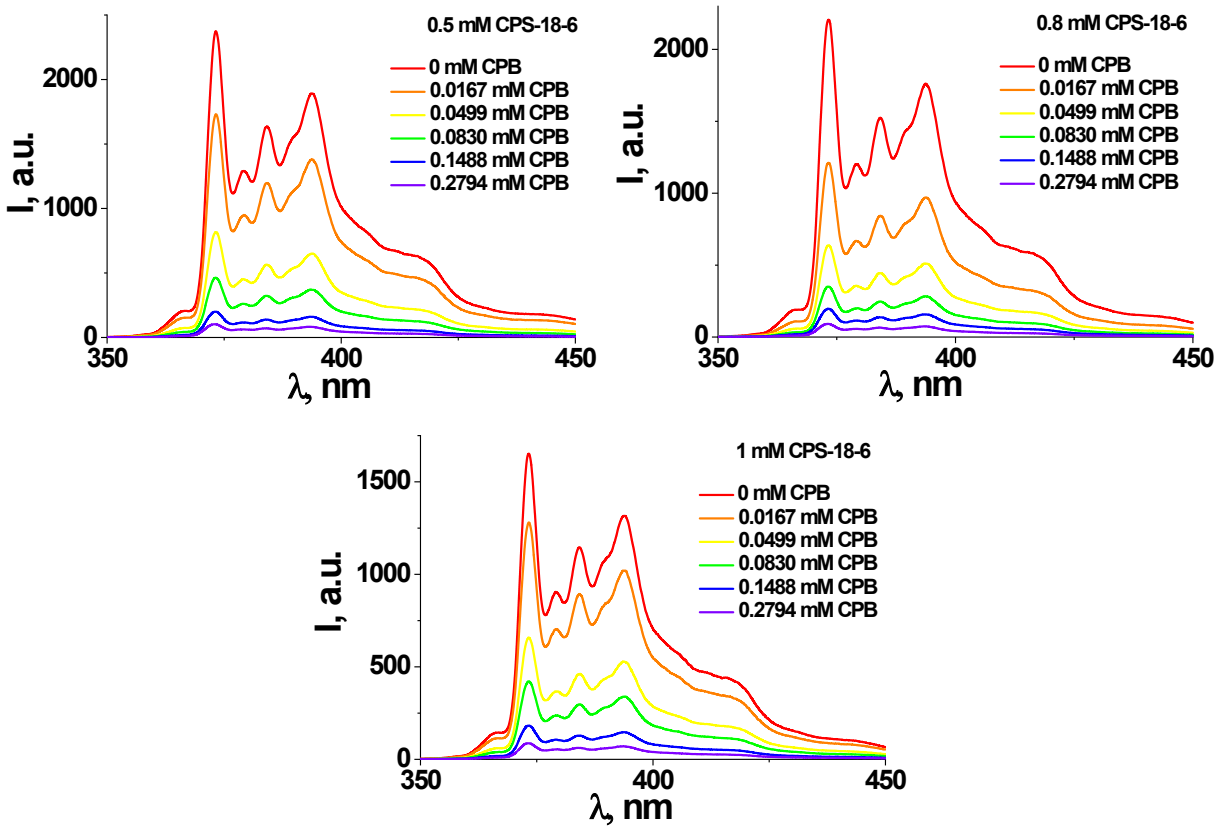
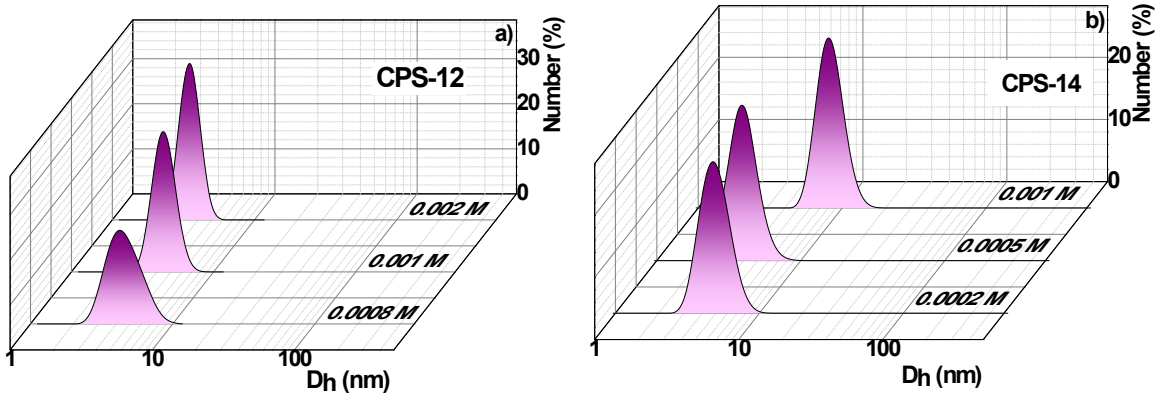


Fig. S.4. Fluorescence quenching spectra of pyrene depending on the CPB concentration for CPS-18-6, 25 °C.



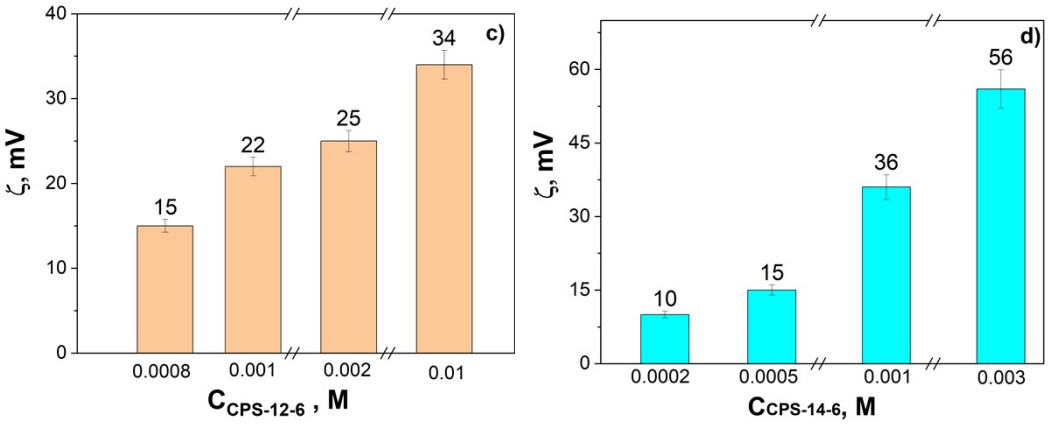


Fig. S5. Number-averaged size distribution and ζ-potential of CPS-12-6 (a, c) and CPS-14-6 (b, d) aggregates at 25 °C.

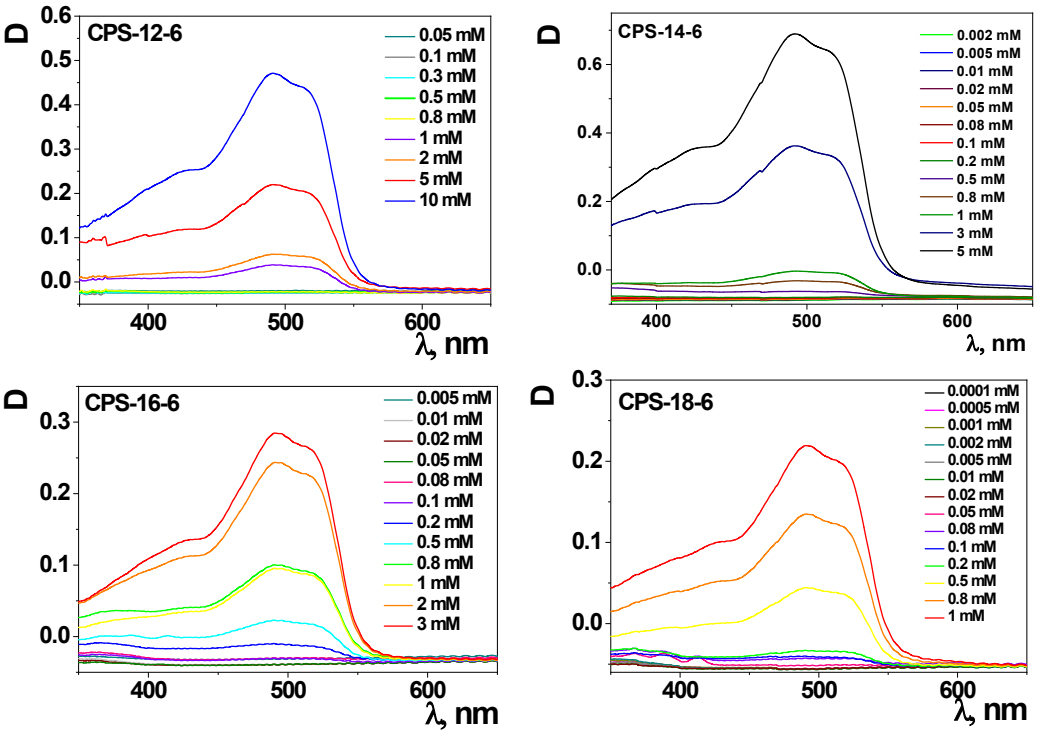
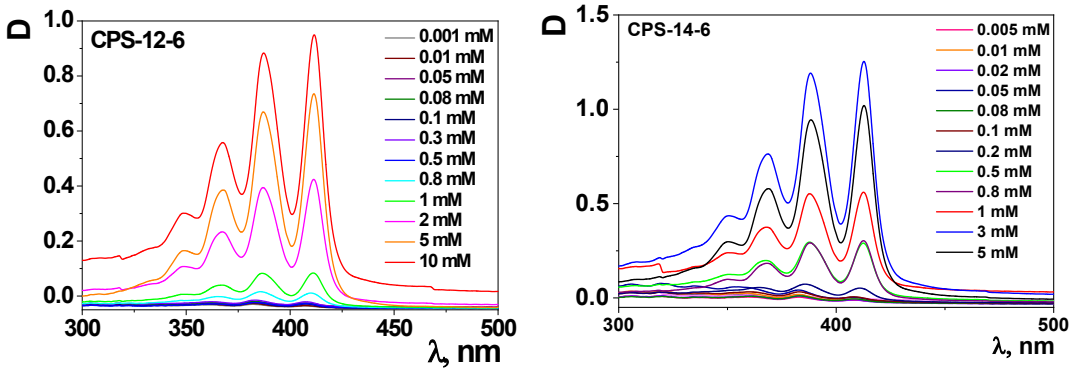


Fig. S6. Electronic absorption spectra of Orange OT for CPS-n-6/Orange OT binary systems; l=1 cm, 25 °C.



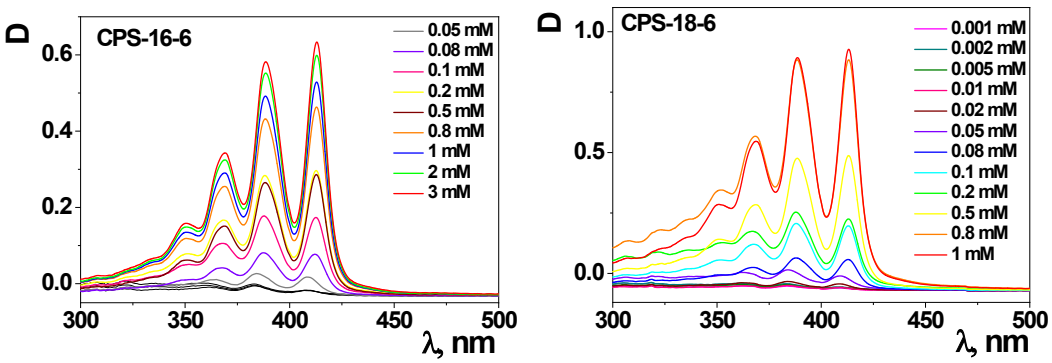


Fig. S7. Electronic absorption spectra of amphotericin B for CPS-n-6/amphotericin B binary systems; l=1 cm, 25 °C.

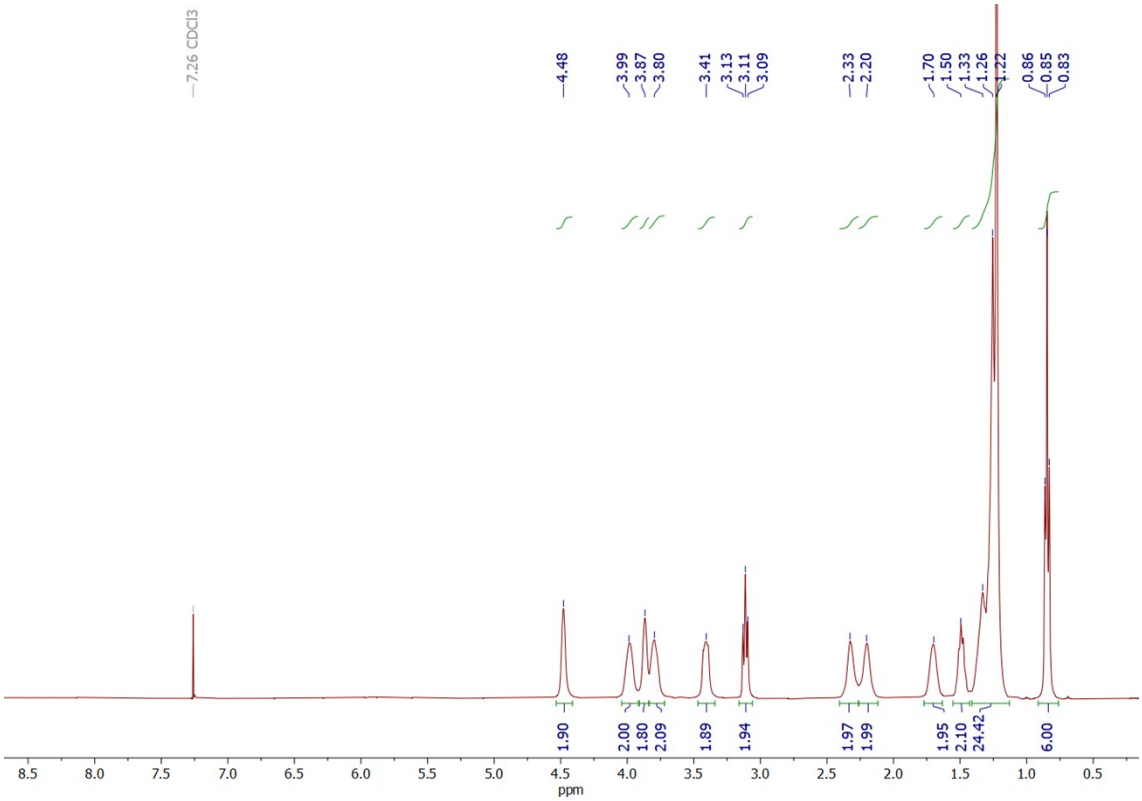


Fig. S8. NMR ^{1}H spectrum of CPS-12-6

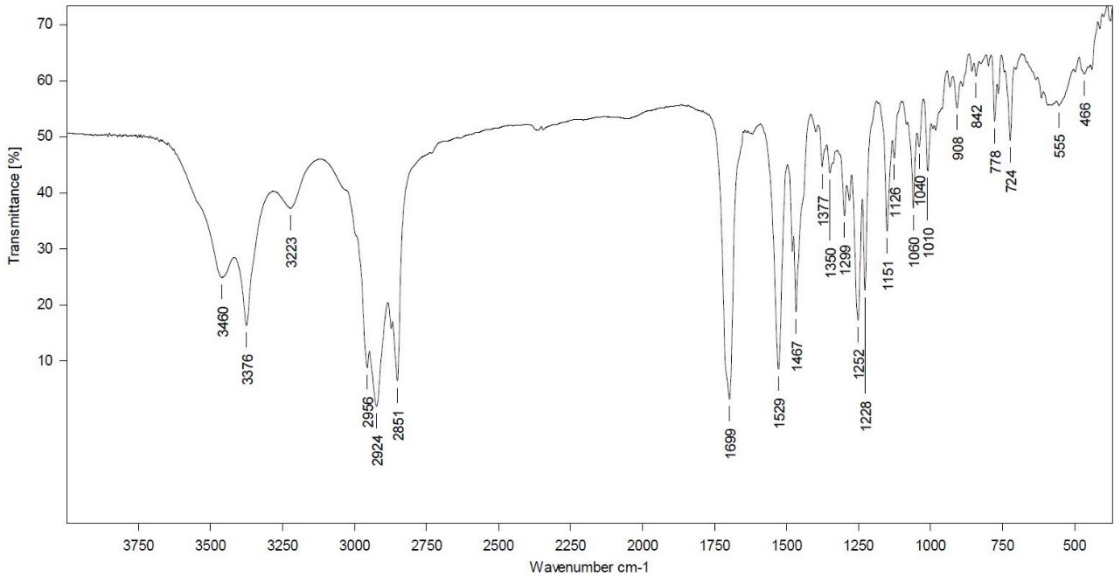


Fig. S9. IR spectrum of CPS-12-6.

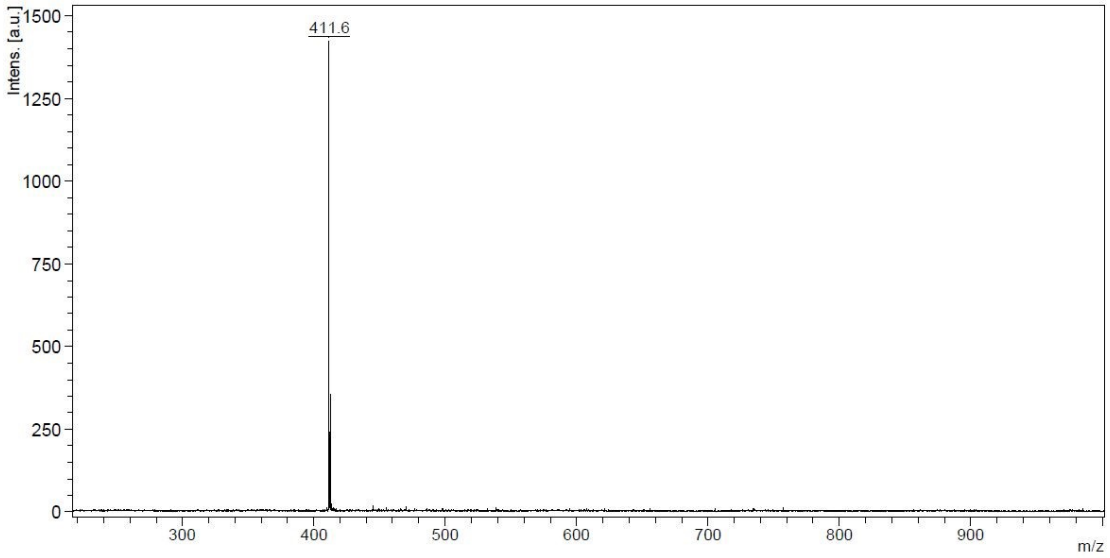


Fig. 10. MALDI mass spectrum of CPS-12-6.

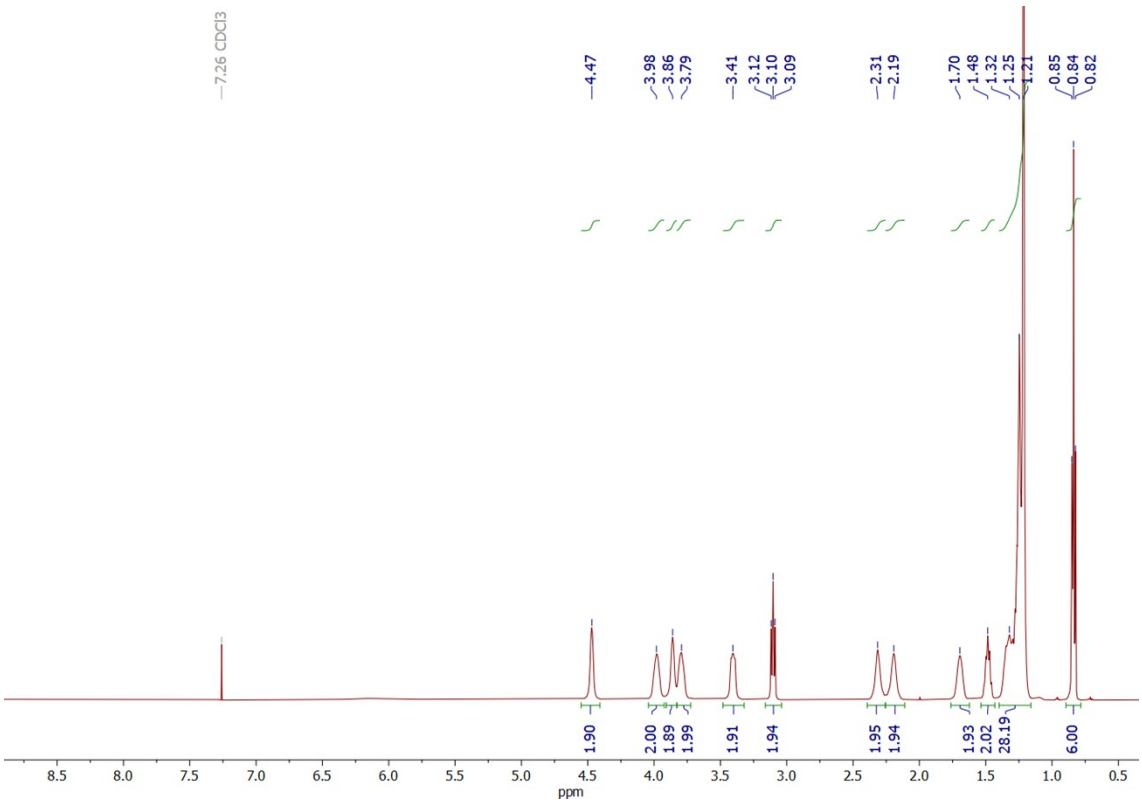


Fig. S11. NMR ^{1}H spectrum of CPS-14-6

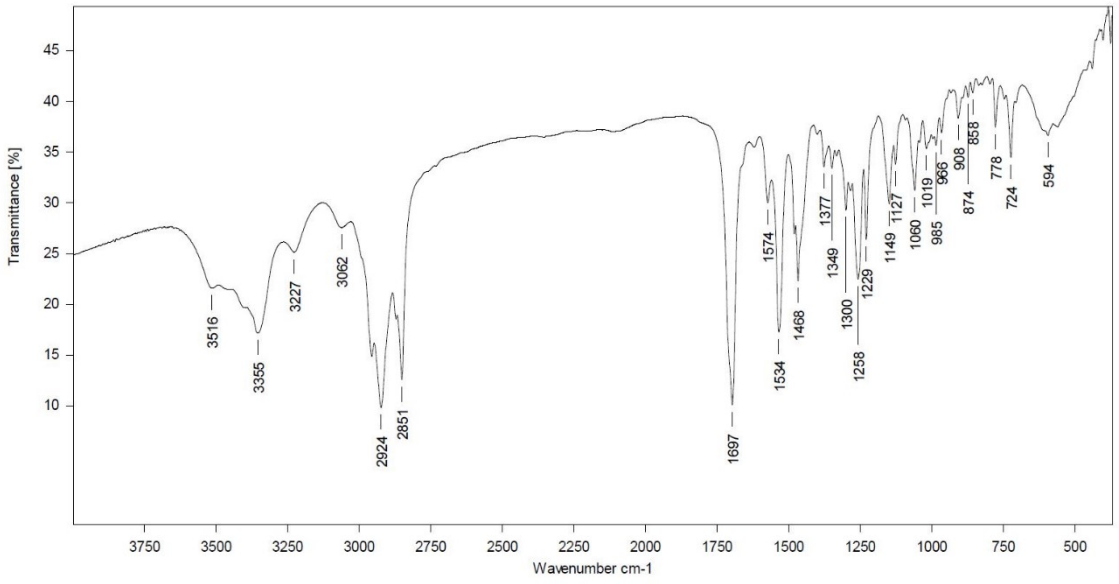


Fig. S12. IR spectrum of CPS-14-6.

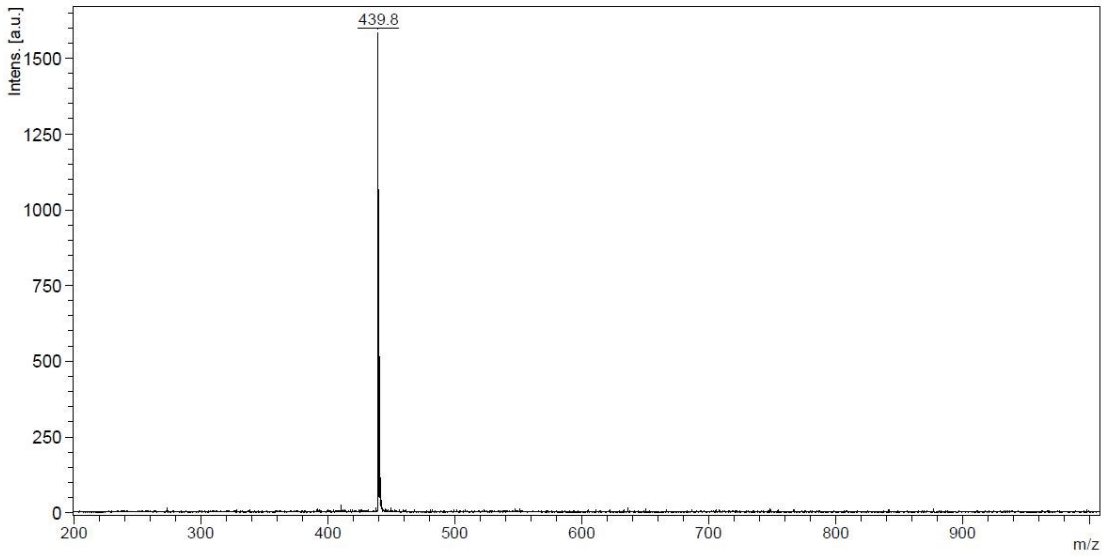


Fig. 13. MALDI mass spectrum of CPS-14-6.

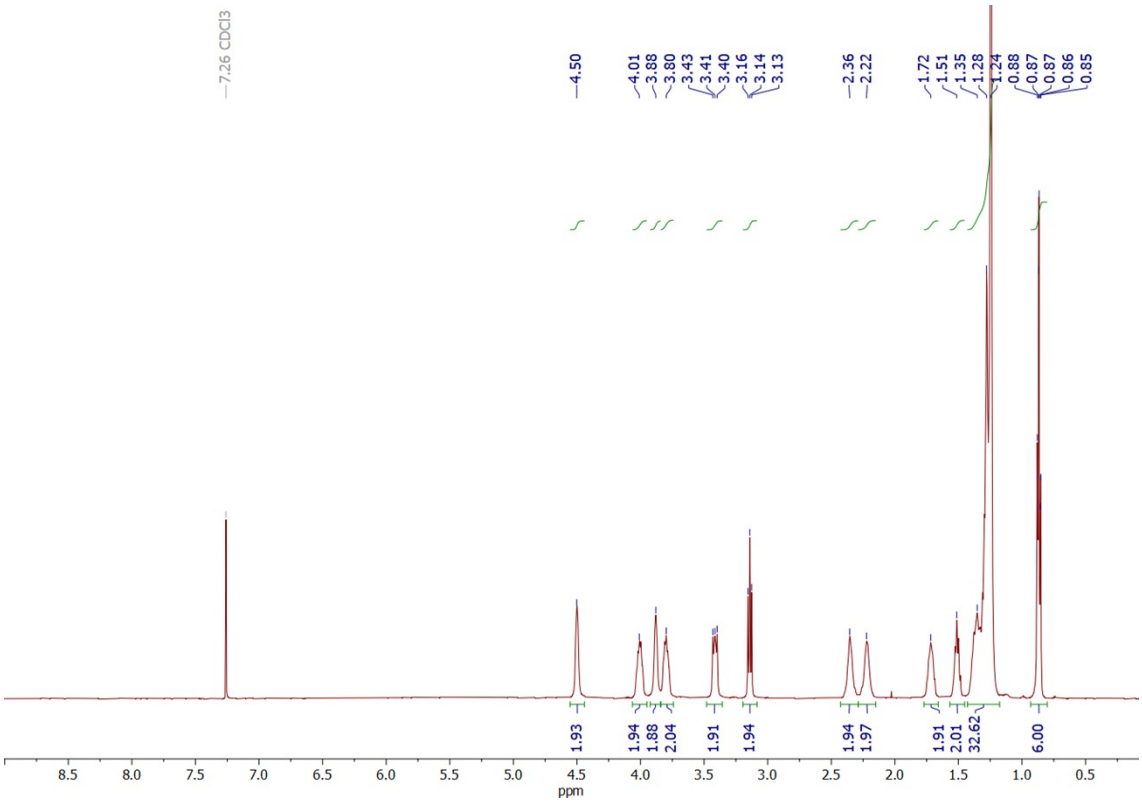


Fig. S14. NMR ^{1}H spectrum of CPS-16-6

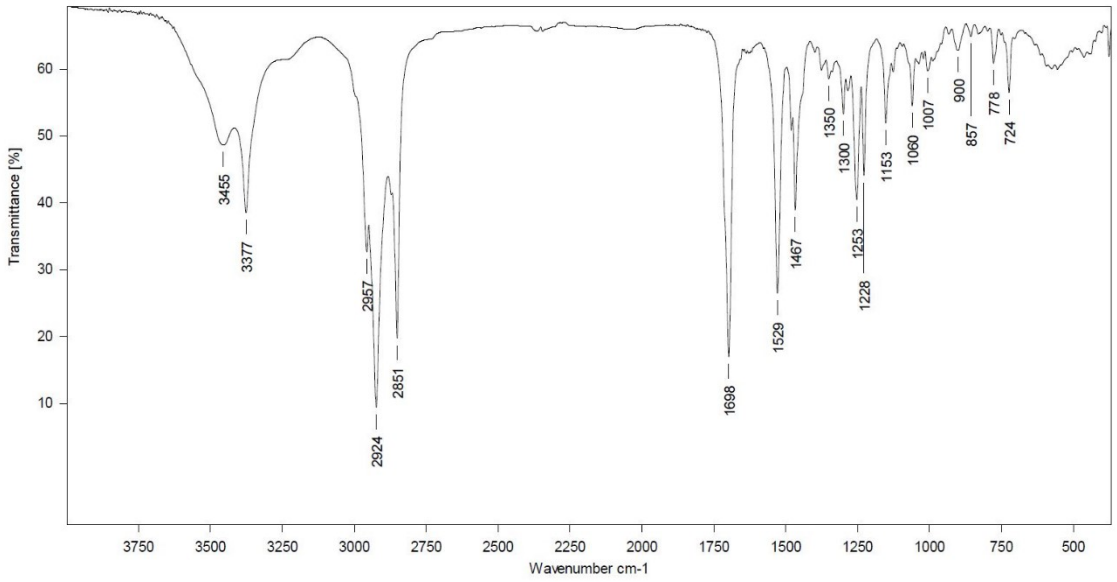


Fig. S15. IR spectrum of CPS-16-6.

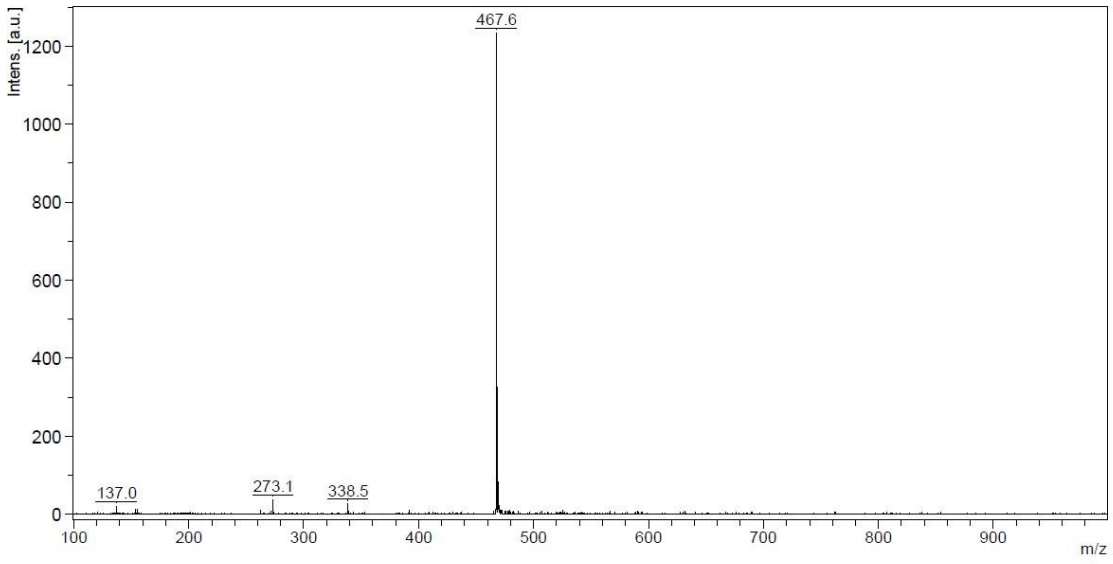


Fig. 16. MALDI mass spectrum of CPS-16-6.

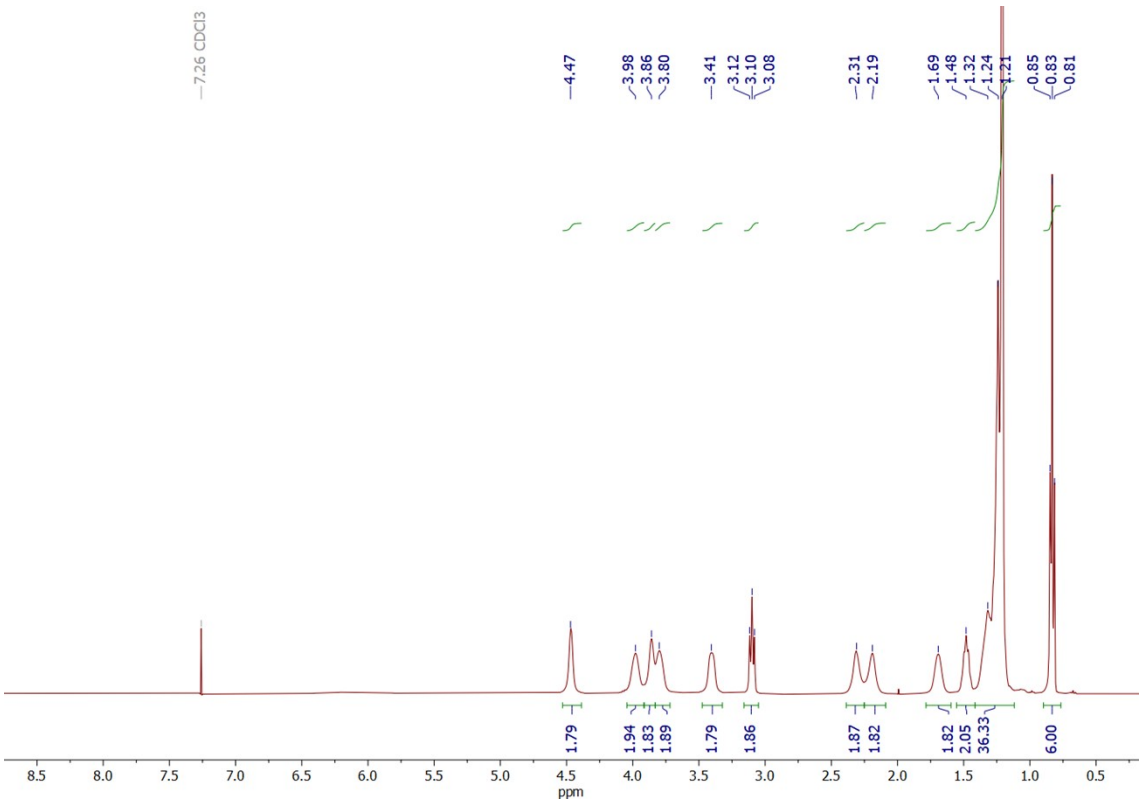


Fig. S17. NMR ^{1}H spectrum of CPS-18-6

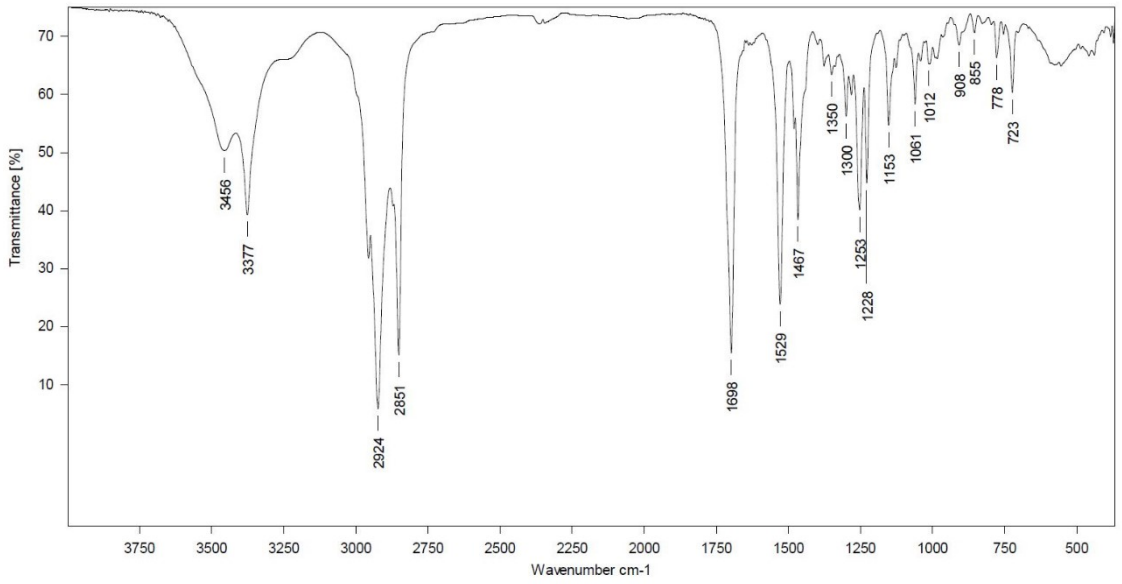


Fig. S18. IR spectrum of CPS-18-6.

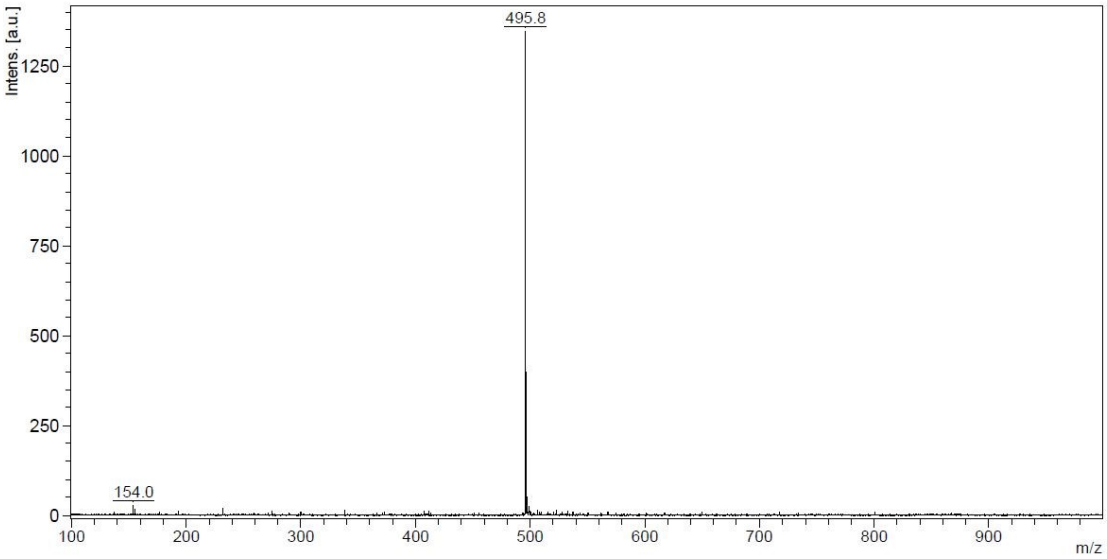


Fig. S19. MALDI mass spectrum of CPS-18-6.

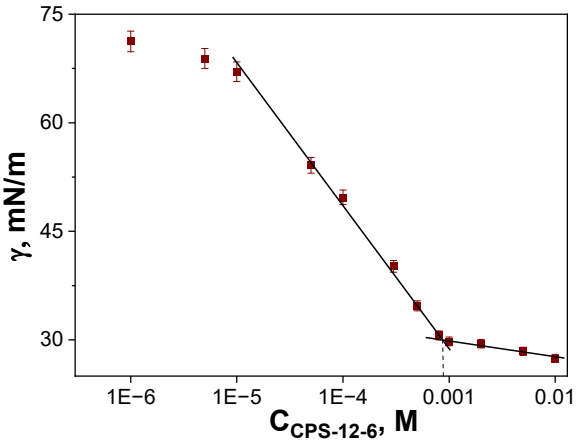


Fig. S20. Determination of CMC using the straight-line method, with the example of CPS-12-6.