

SUPPORTING INFORMATION

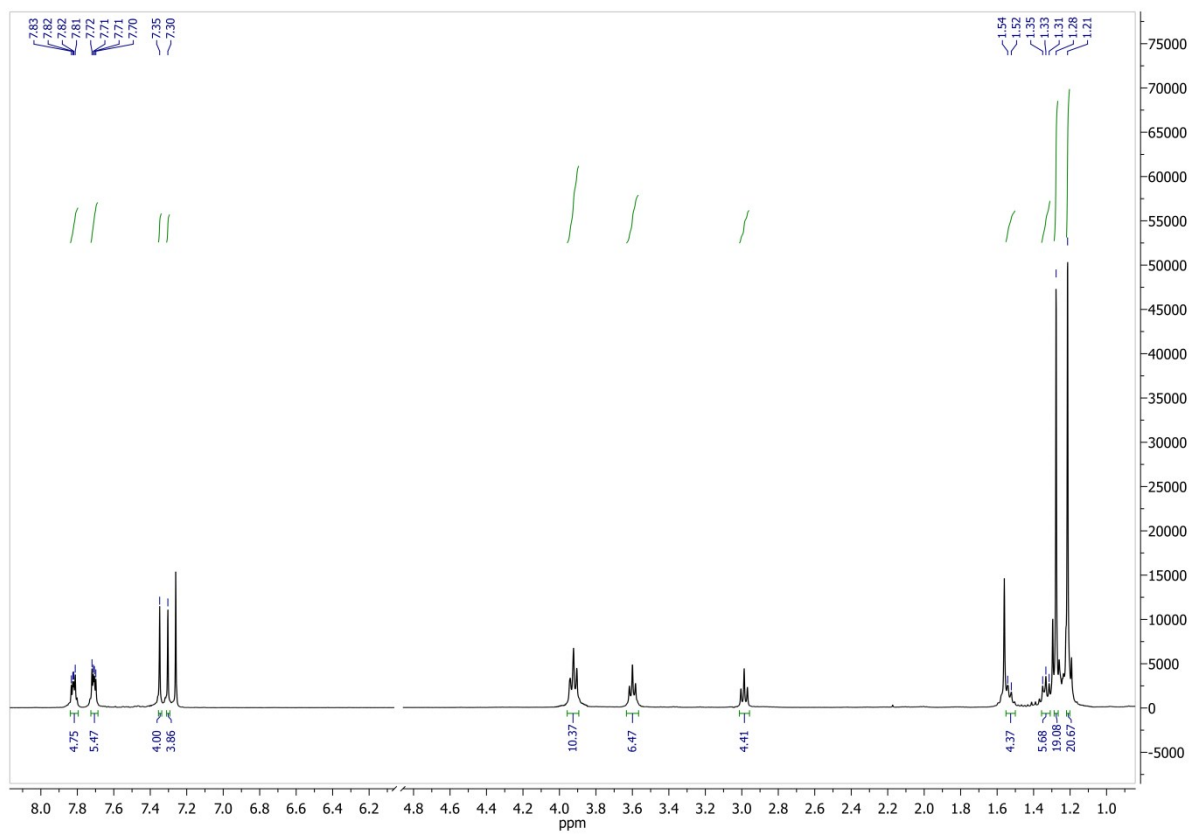
Novel amphiphilic conjugates of *p*-tert-butylthiacalix[4]arene with 10,12-pentacosadiynoic acid in 1,3-*alternate* stereoisomeric form. Synthesis and chromatic properties in the presence of metal ions.

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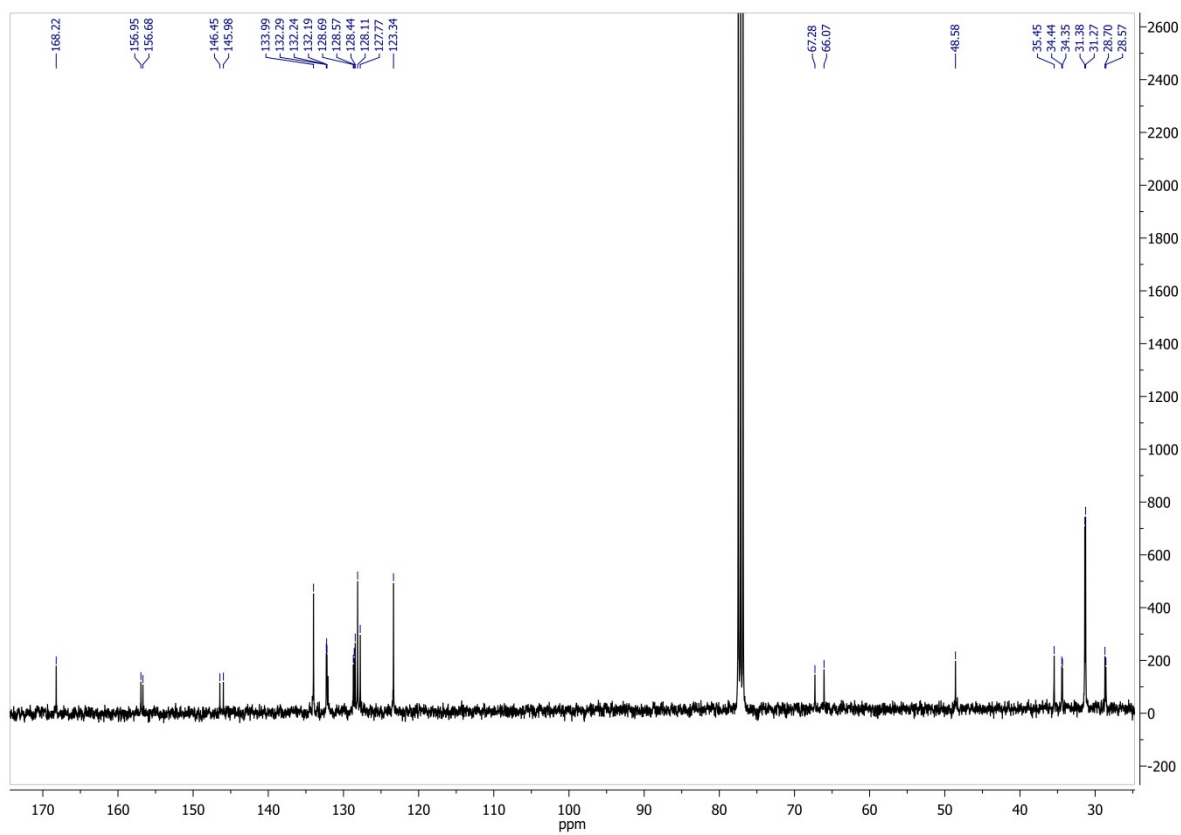
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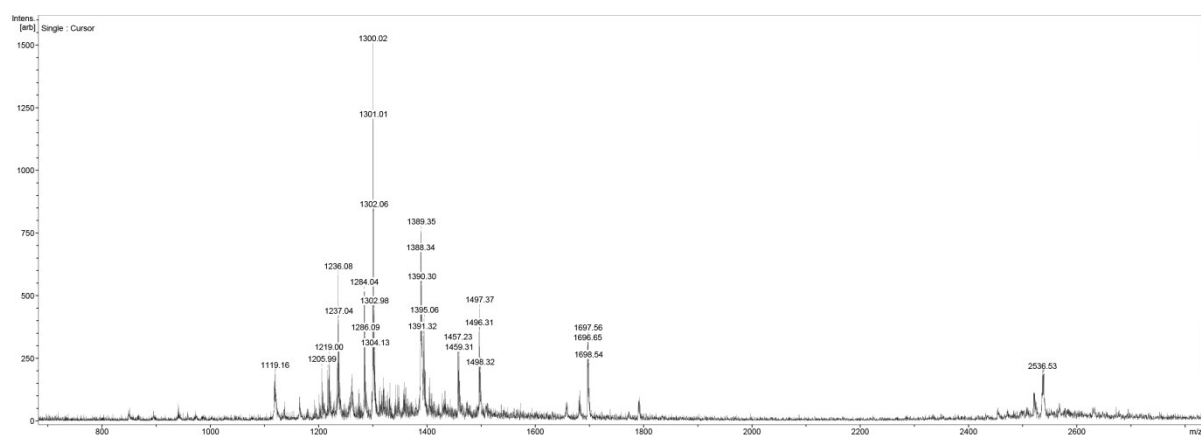
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a)



b)

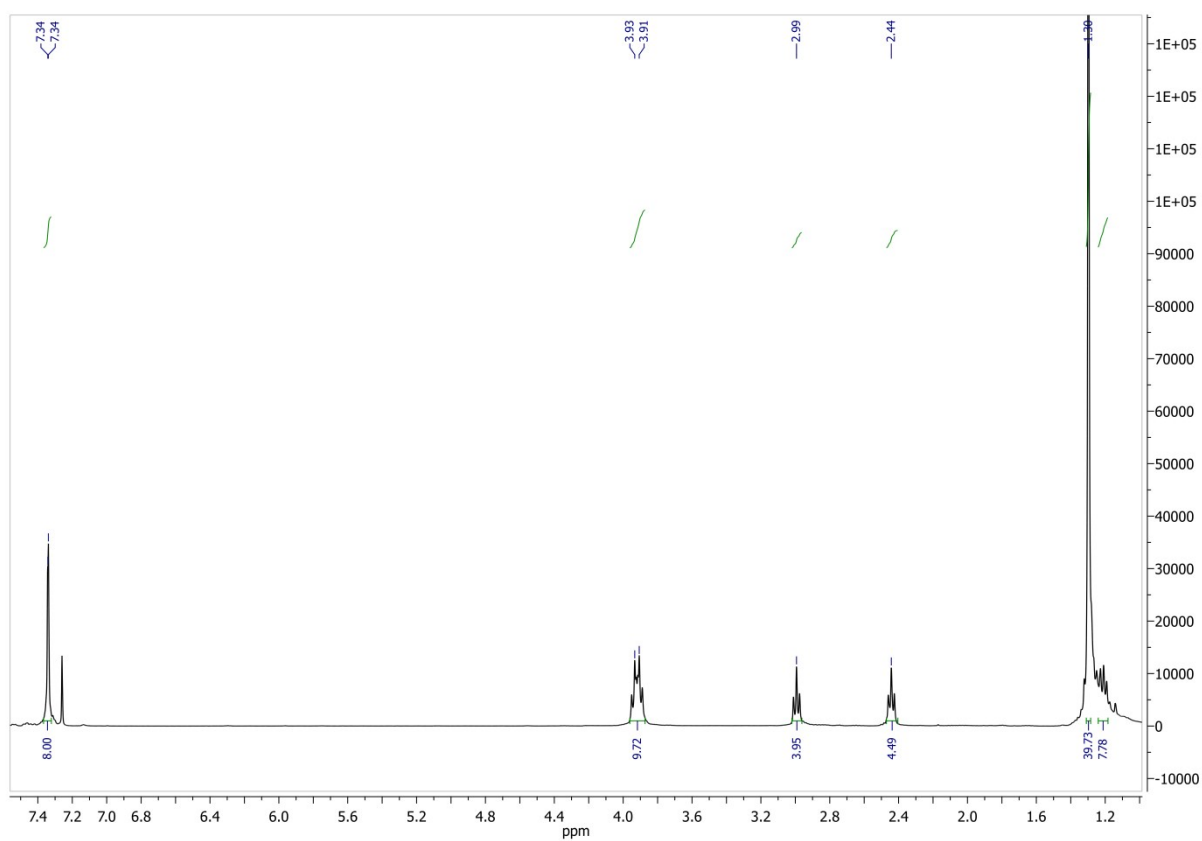


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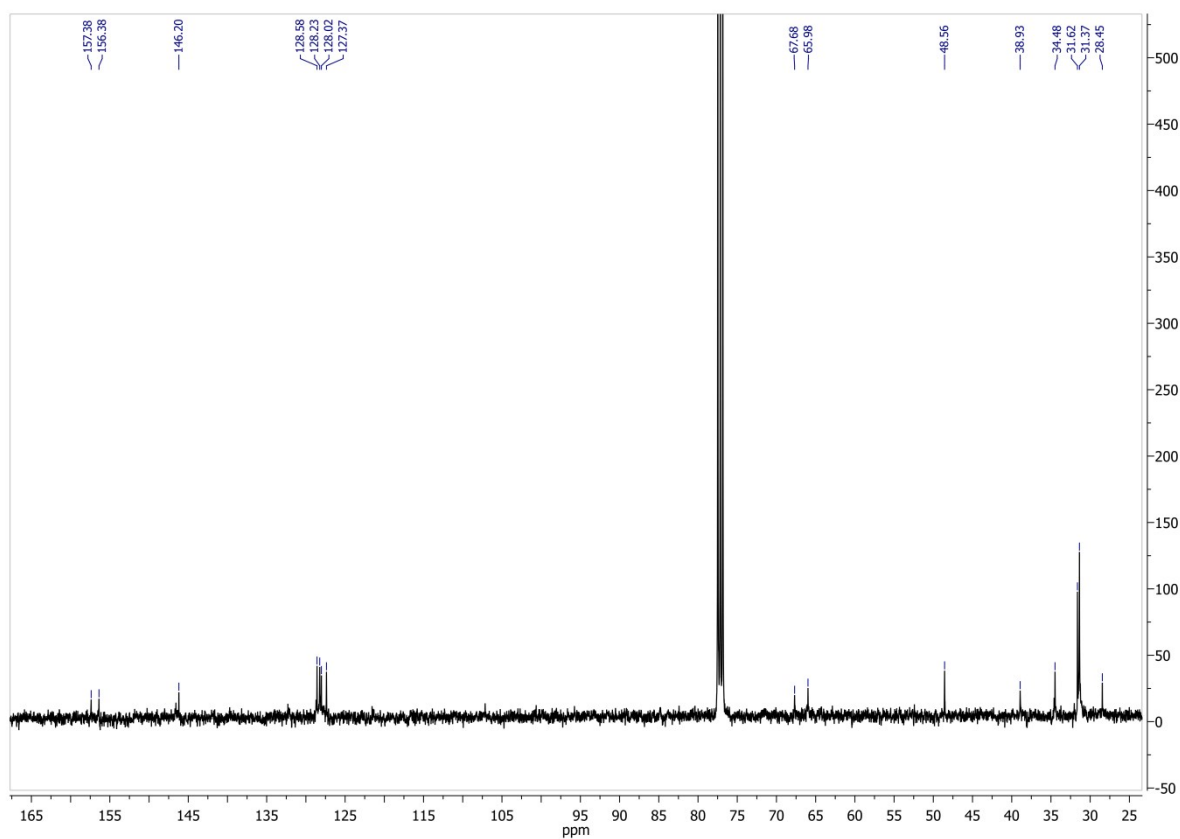
Display Screenshot - Generated On 2017-09-13 13h49m27s

c)

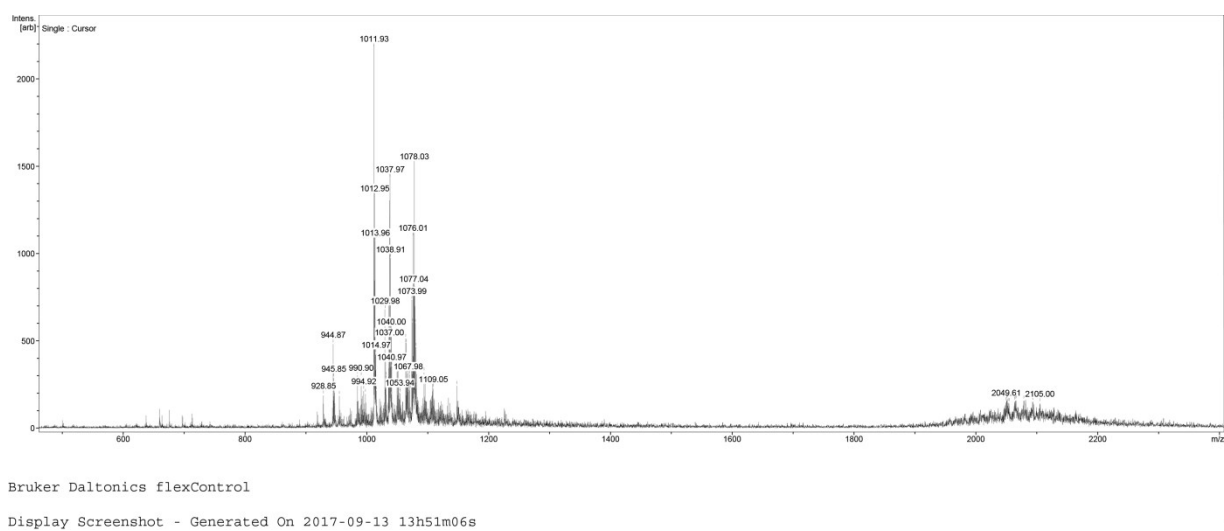
Fig. 1 NMR ^1H (a), ^{13}C (b) and MALDI-TOF (c) spectra of *5,11,17,23-tetra-tert-butyl-25,27-bis(3-azidopropoxy)-26,28-bis(3-(1,3-dioxoisoindolin-2-yl)propoxy)thiacalix[4]arene 2*



a)

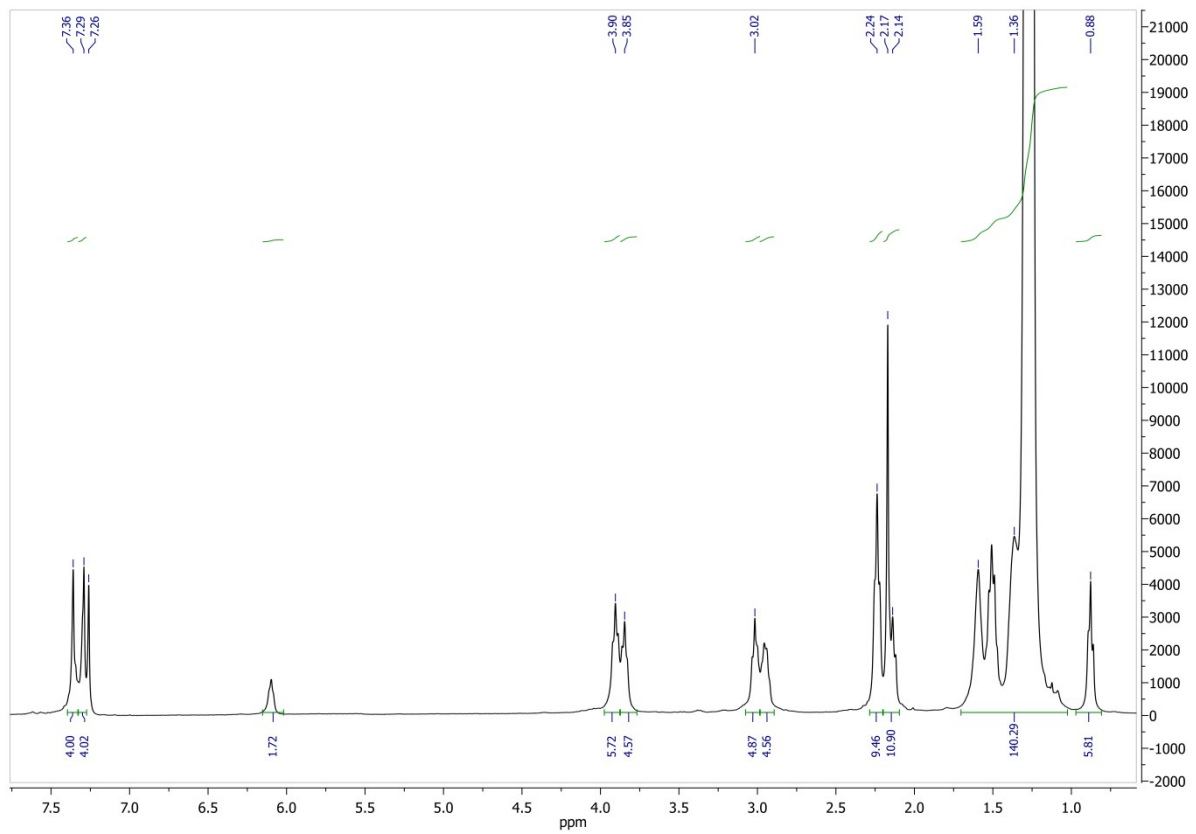


b)

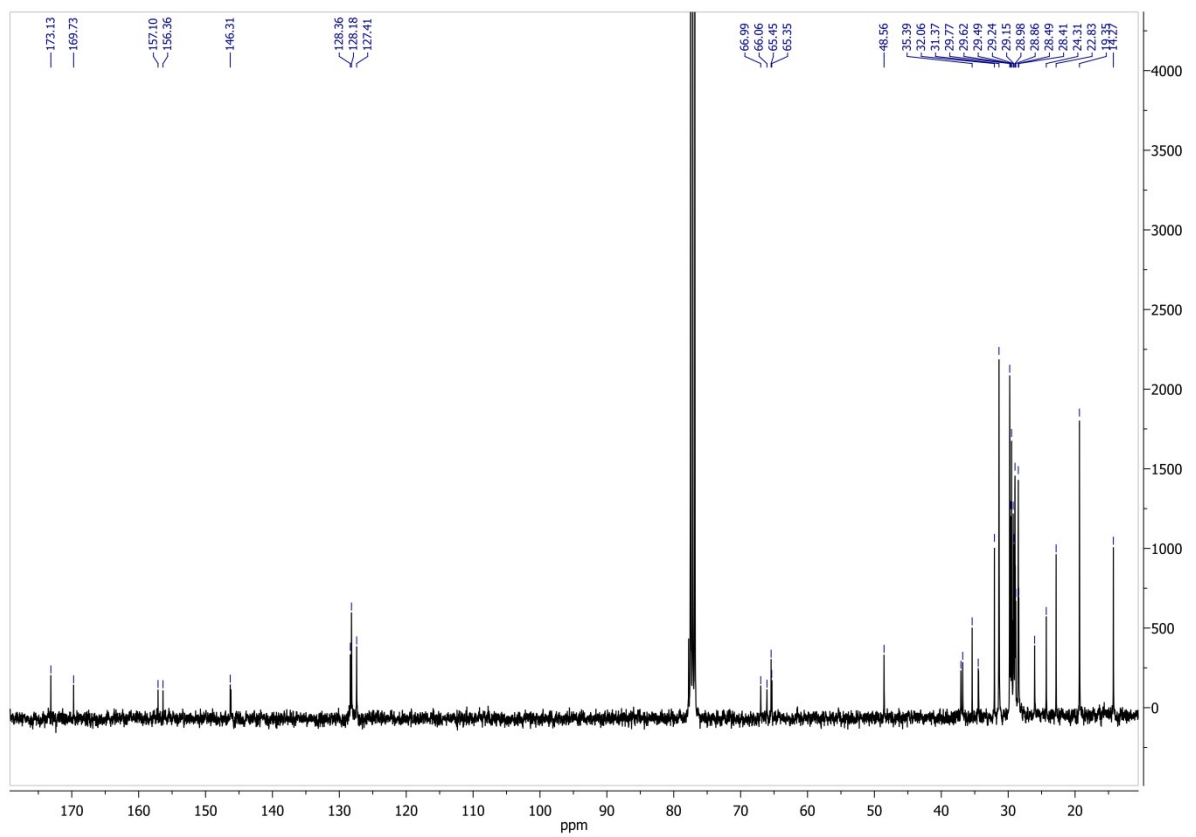


c)

Fig. 2 NMR ^1H (a), ^{13}C (b) and MALDI-TOF (c) spectra of 5,11,17,23-*tetra-tert-butyl-25,27-bis(3-azidopropoxy)-26,28-bis(3-aminopropoxy)thiacalix[4]arene* **3**.



a)



b)

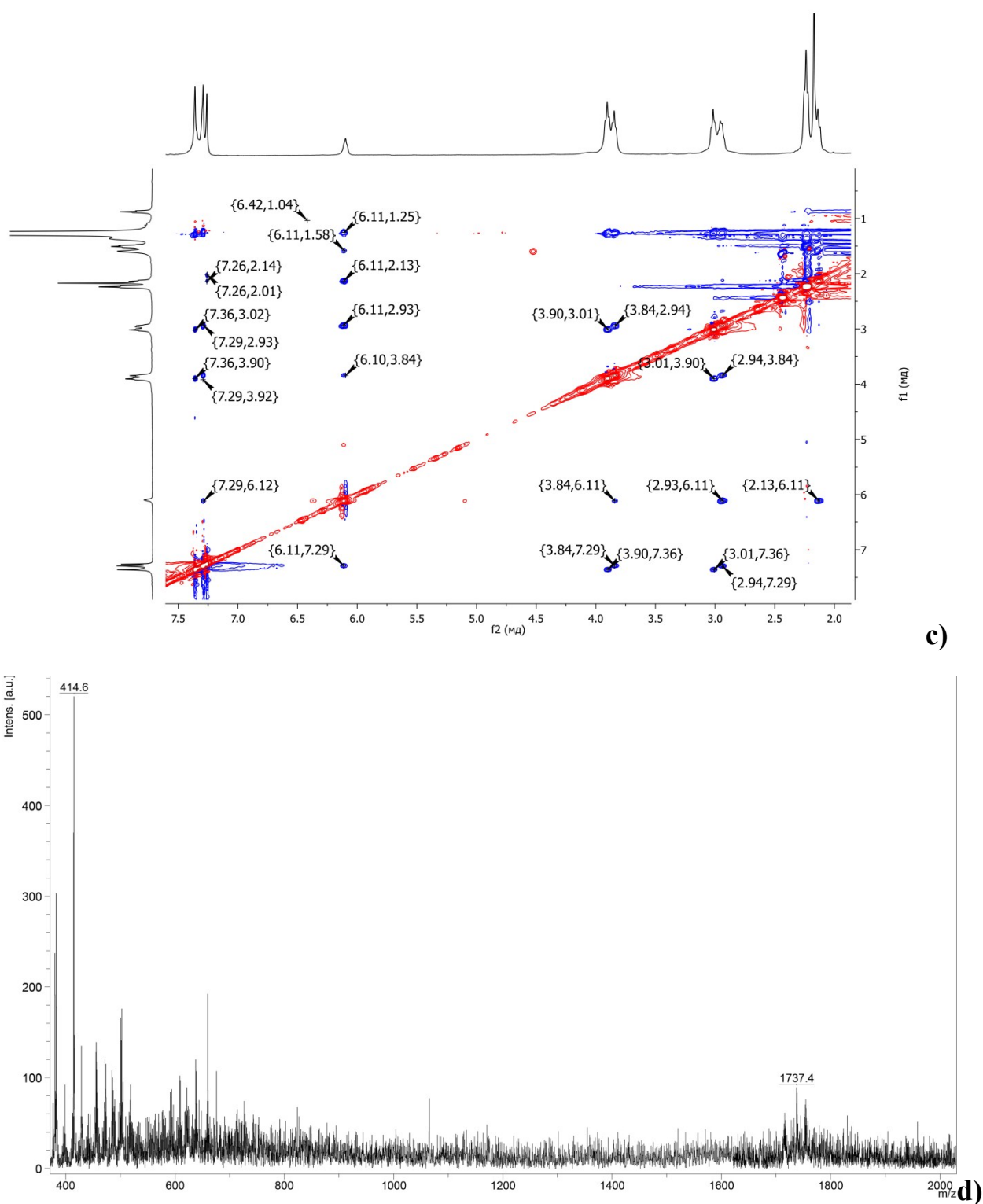


Fig. 3 NMR ^1H (a), ^{13}C (b), ^1H - ^1H 2D NOESY(c) and MALDI-TOF (d) spectra of *5,11,17,23-tetra-tert-butyl-25,27-bis(3-azidopropoxy)-26,28-bis(3-(pentacos-10,12-diynamido)propoxy)thiacalix[4]arene 4*.

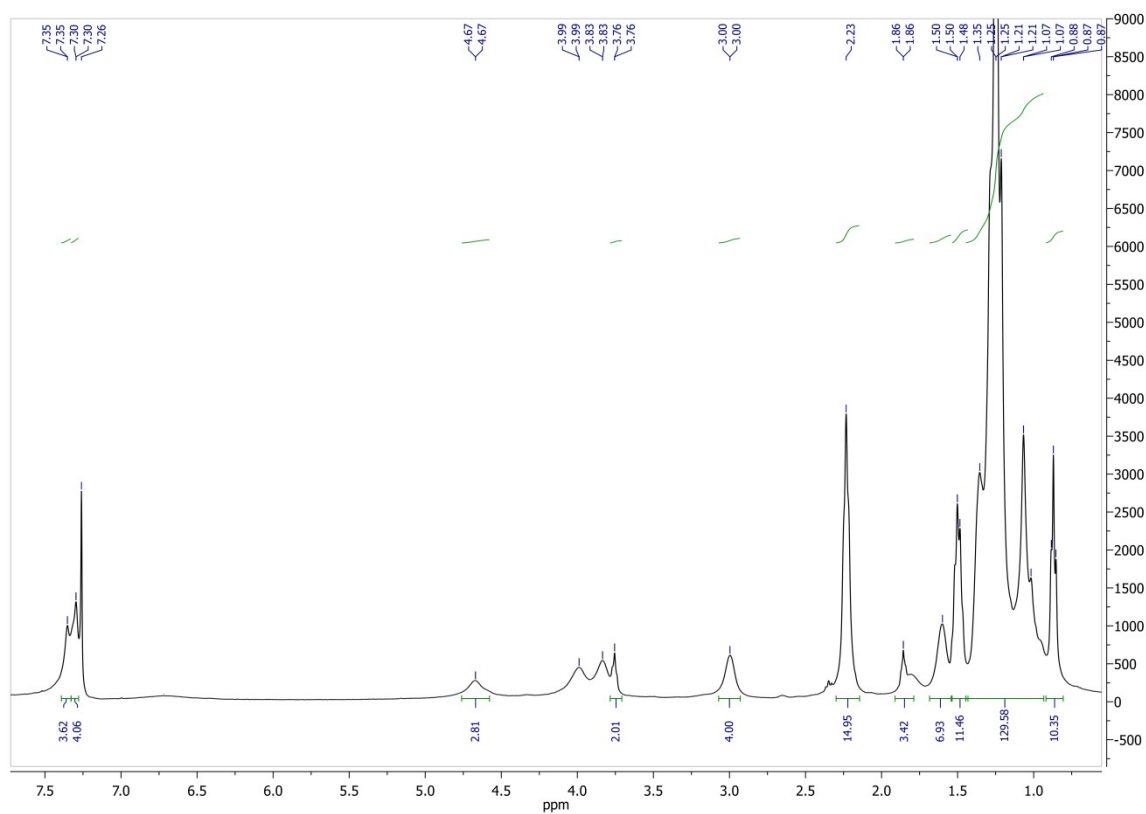
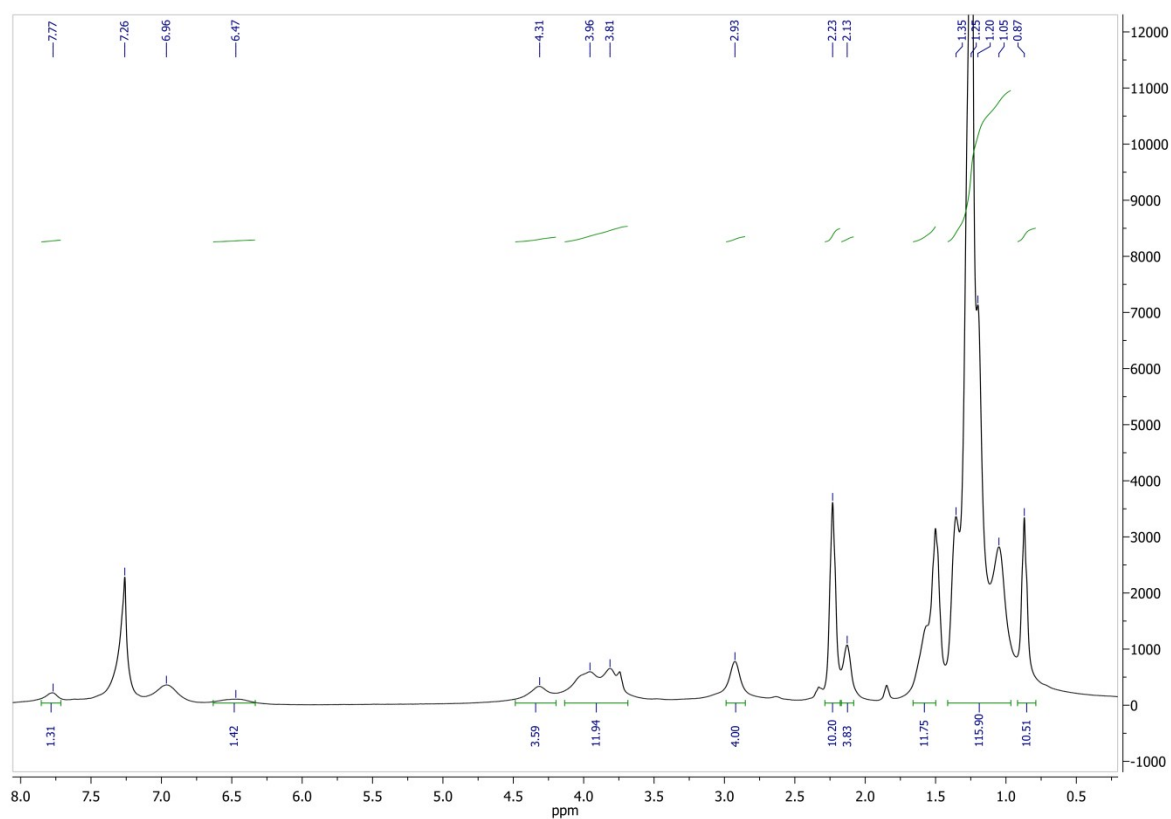
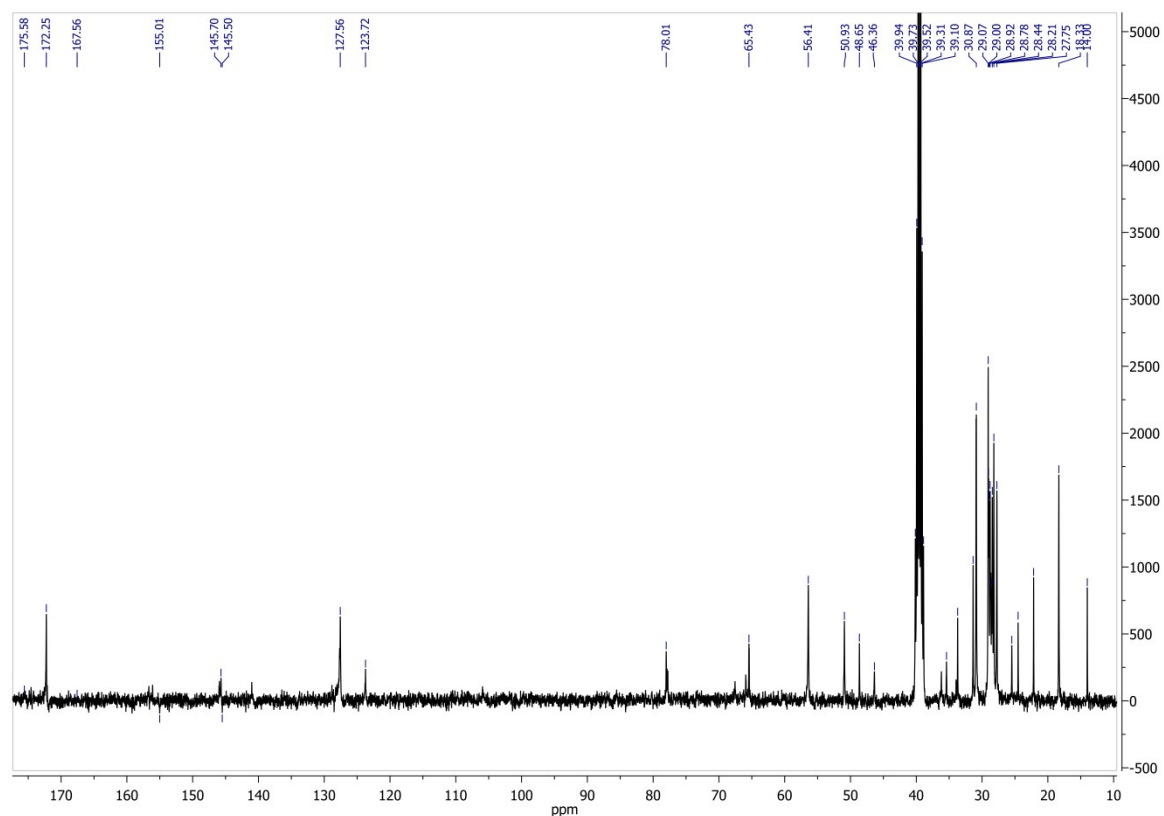


Fig. 4 NMR ^1H spectra *5,11,17,23-tetra-tert-butyl-25,27-bis(3-(pentacosa-10,12-diynamido)propoxy)-26,28-bis[3-(4,5-dicarboxy-1,2,3-triazol-1-yl)propoxy]thiacalix[4]arene 5*.



a)



b)

Fig. 5 NMR ^1H (a) and ^{13}C (b) spectra of 5,11,17,23-tetra-*tert*-butyl-25,27-bis(3-(pentacosa-10,12-diynamido)propoxy)-26,28-bis(3-(4-(sulfonate)methyl)-1*H*-1,2,3-triazol-1-yl)propoxy)thiacalix[4]arene disodium salt **6**.

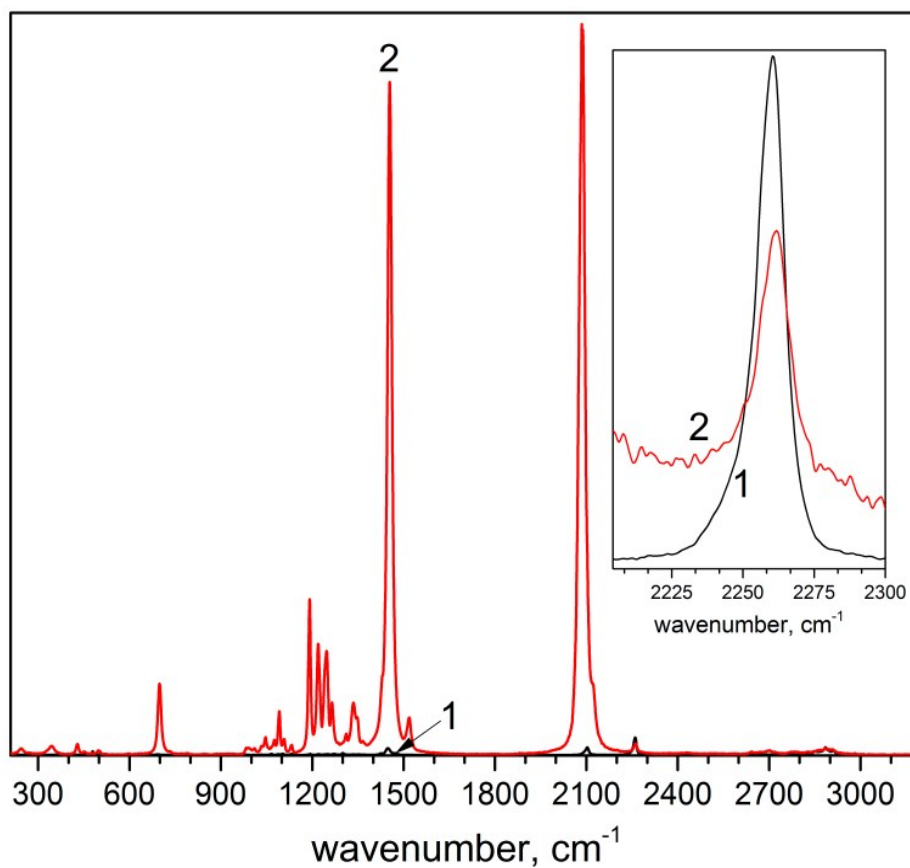


Fig. 6. Raman spectra of starting (1) and UV irradiated (2) samples of PCDA. The spectra are normalized by setting the intensities of bands of CH₂ stretching vibrations (2885 cm⁻¹) to one.

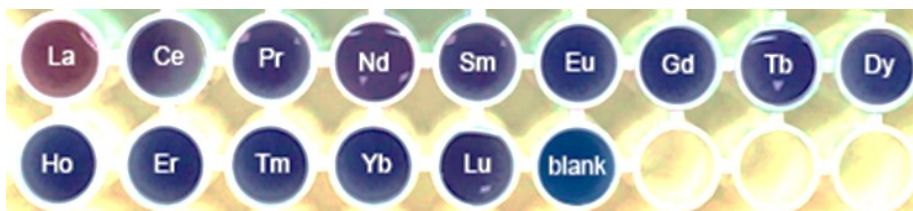


Fig. 7. Photograph of a portion of a 96-well plate containing PCDA-5 vesicles (blank) and in the presence of lanthanide nitrates. (C(PCDA) = 0.7 mM, C (5) = 0.07mM, C (Me³⁺) = 0.7 mM) in 10 mM Tris Buffer, pH = 7.4.