Supporting Information

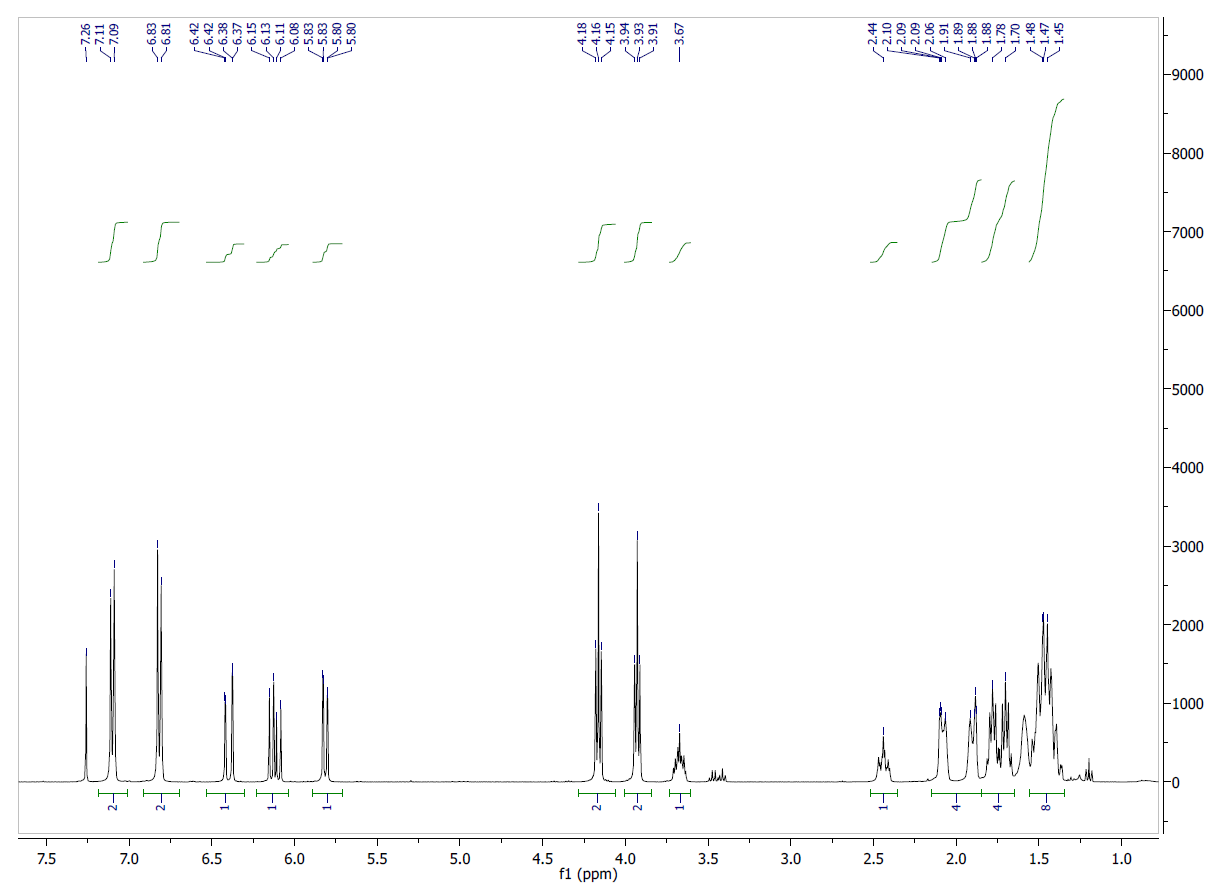
Reactive mesogens for ultraviolet-transparent liquid crystal polymer networks

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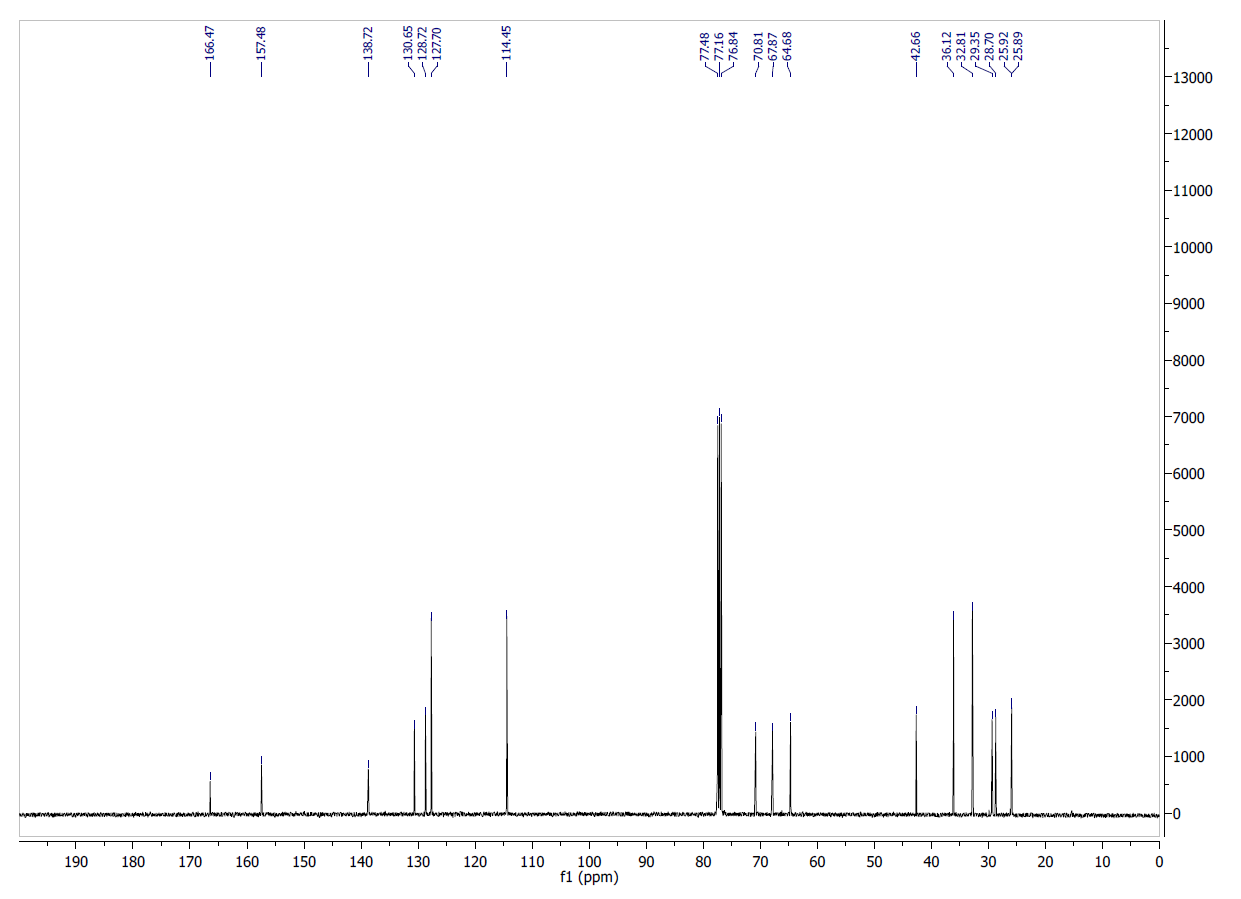
a *Stratingh Institute for Chemistry, University of Groningen, Nijenborgh 8, 9747 AG Groningen, The Netherlands*

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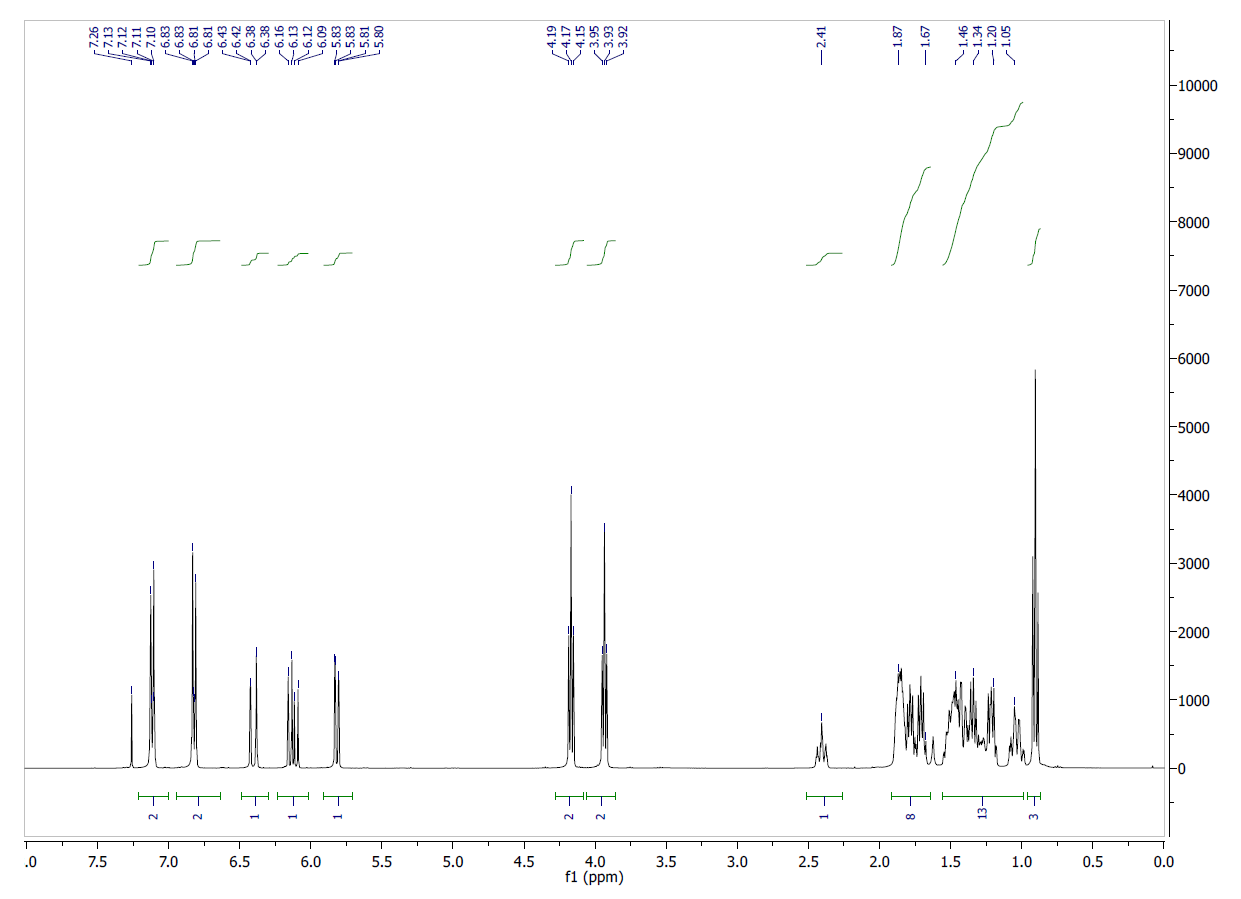
\* corresponding author: remi.plamont@gmail.com



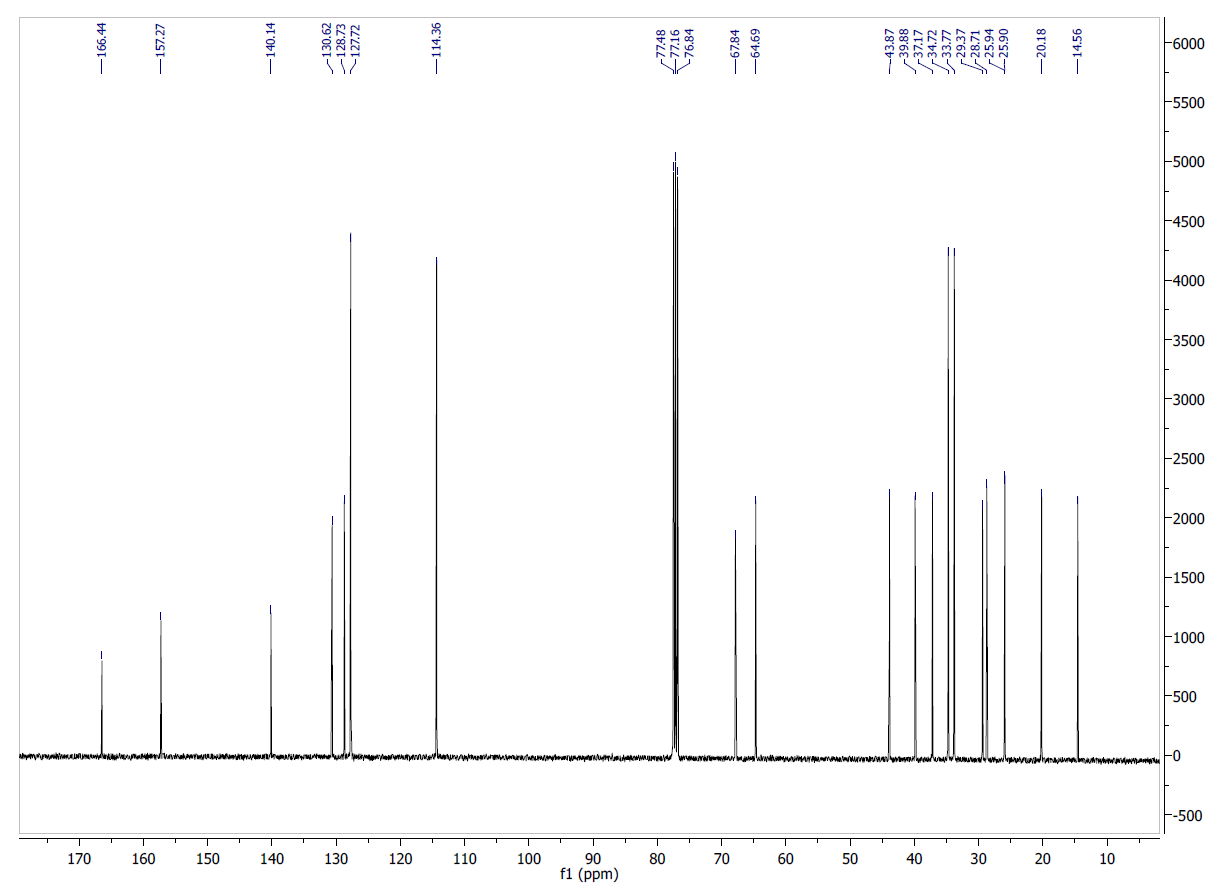
FigureS1. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **11**

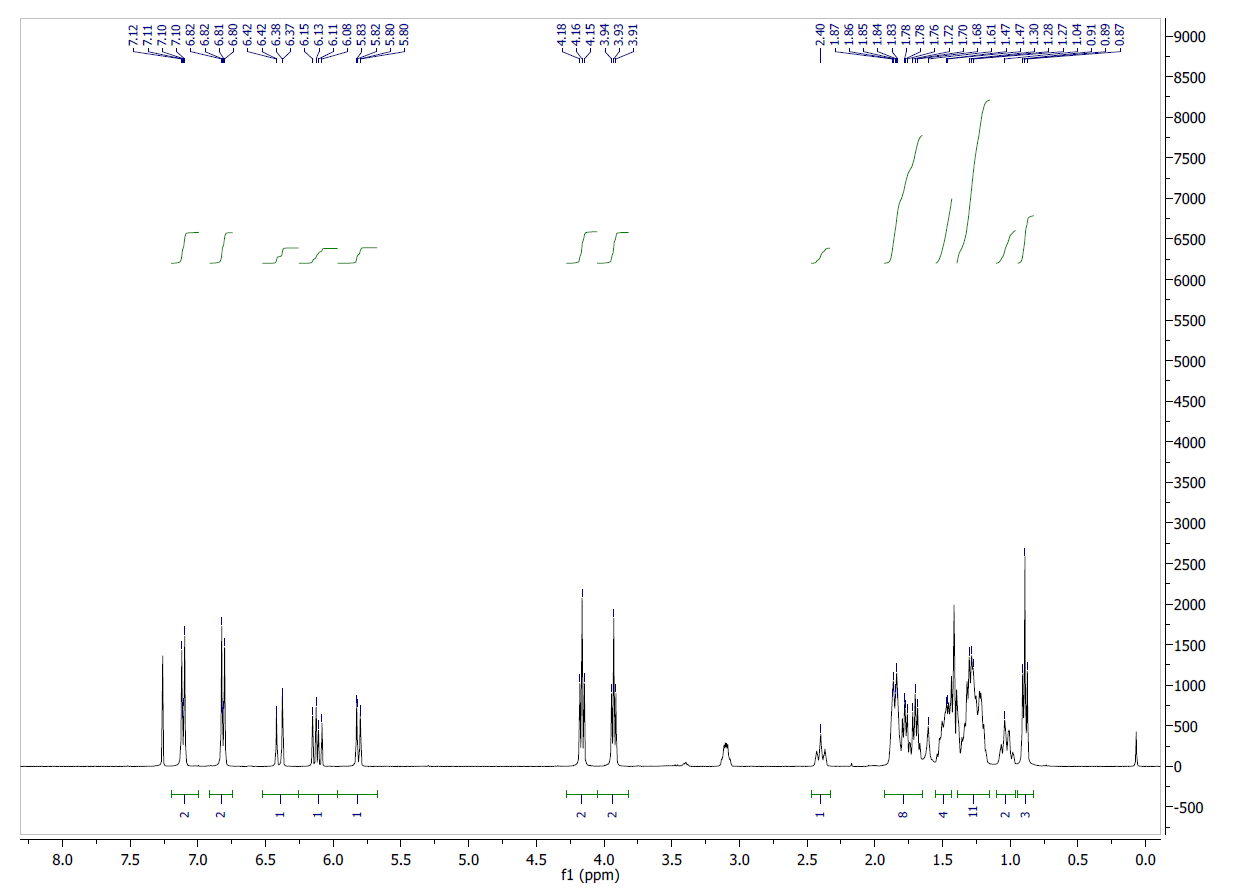


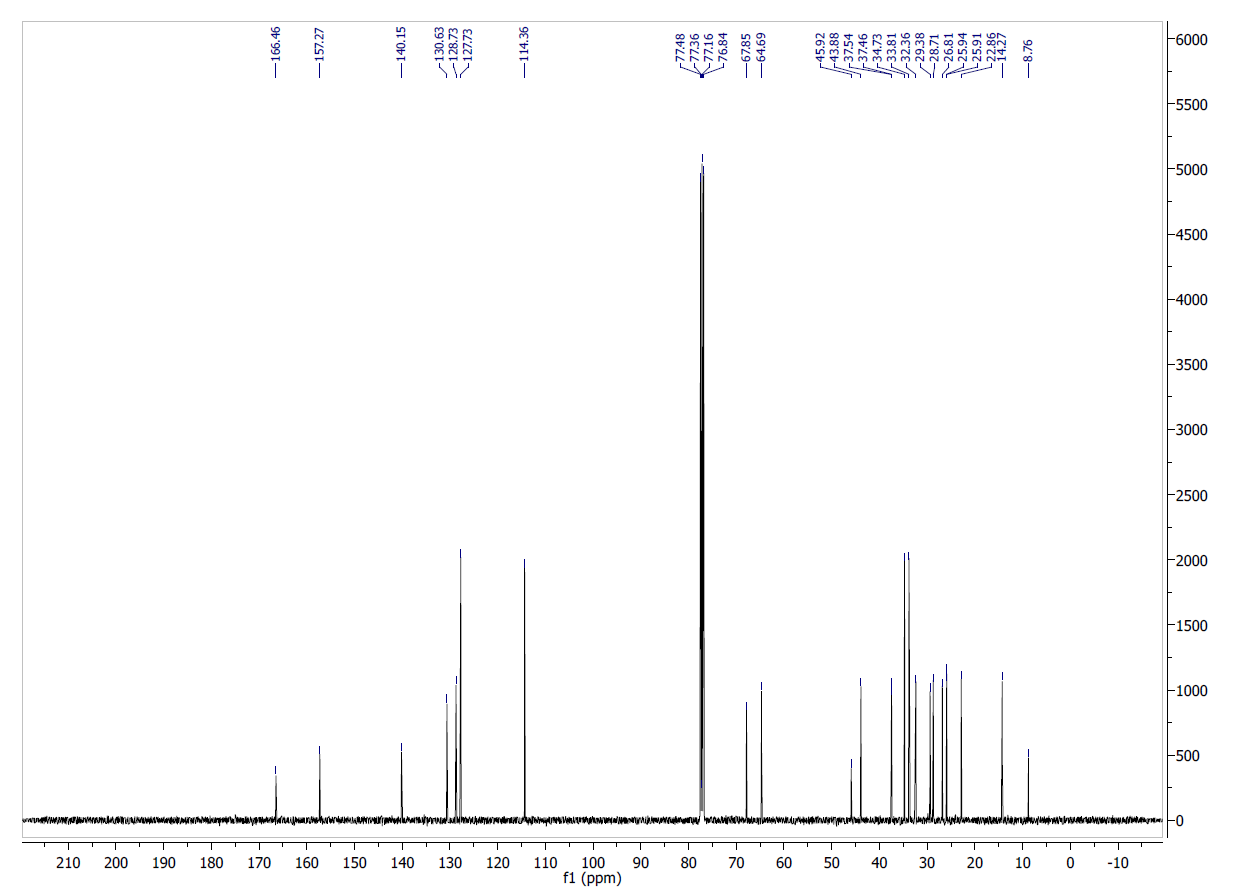




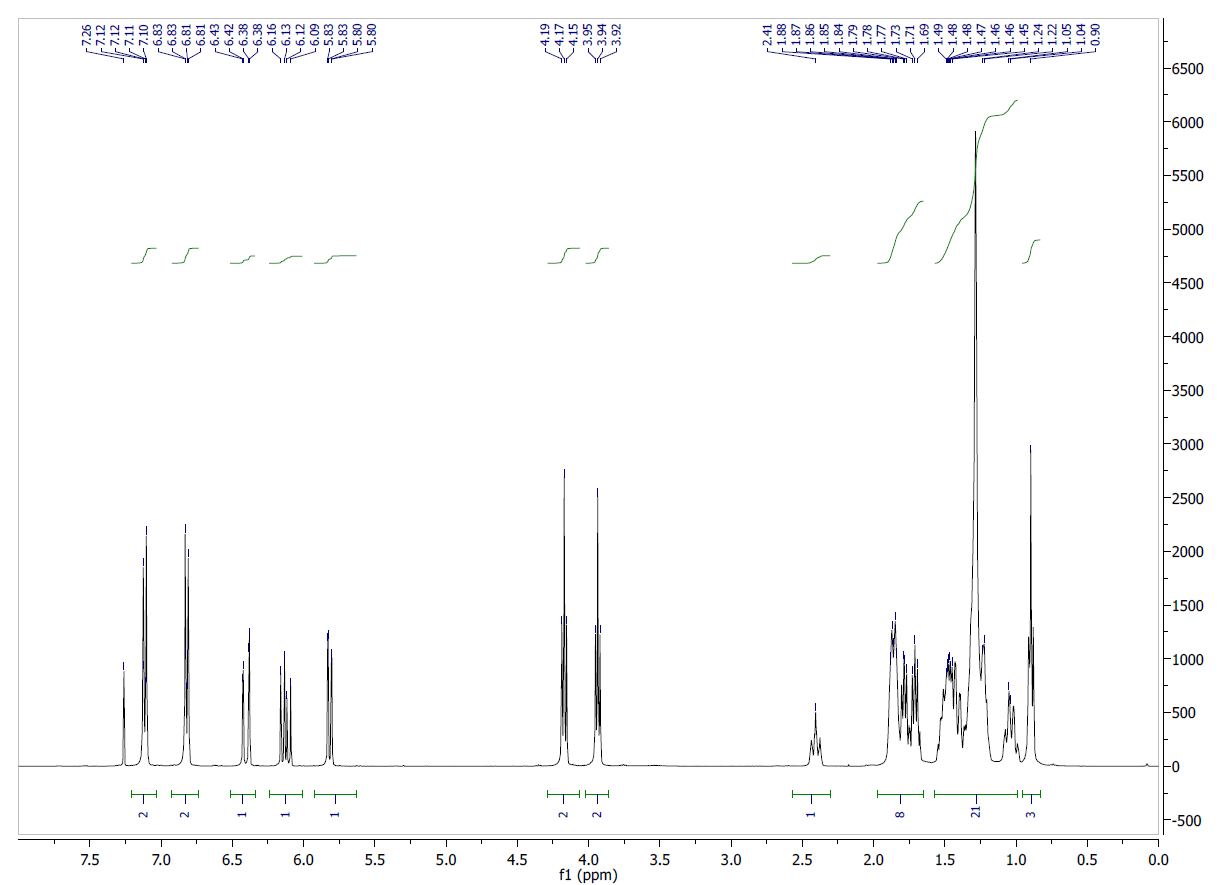
FigureS2. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **12**

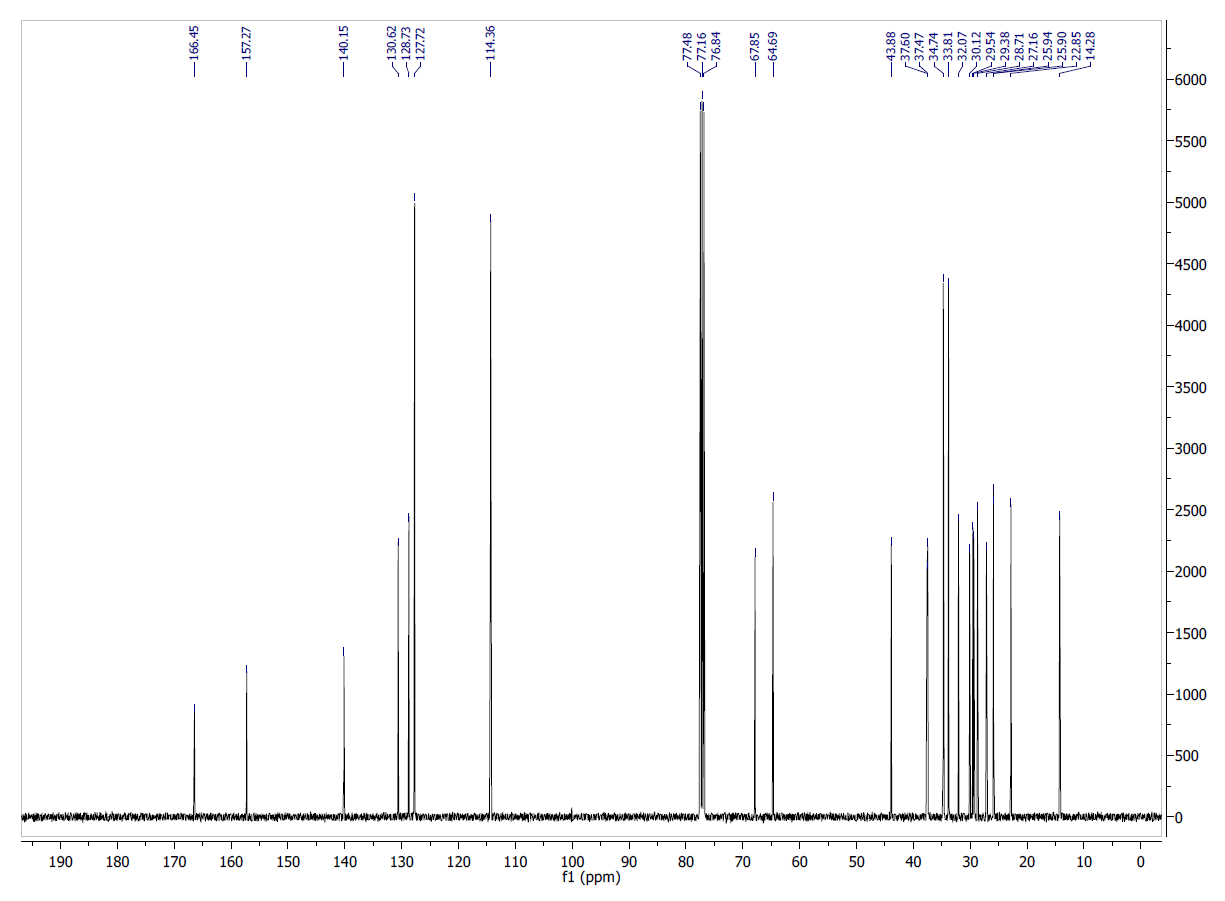






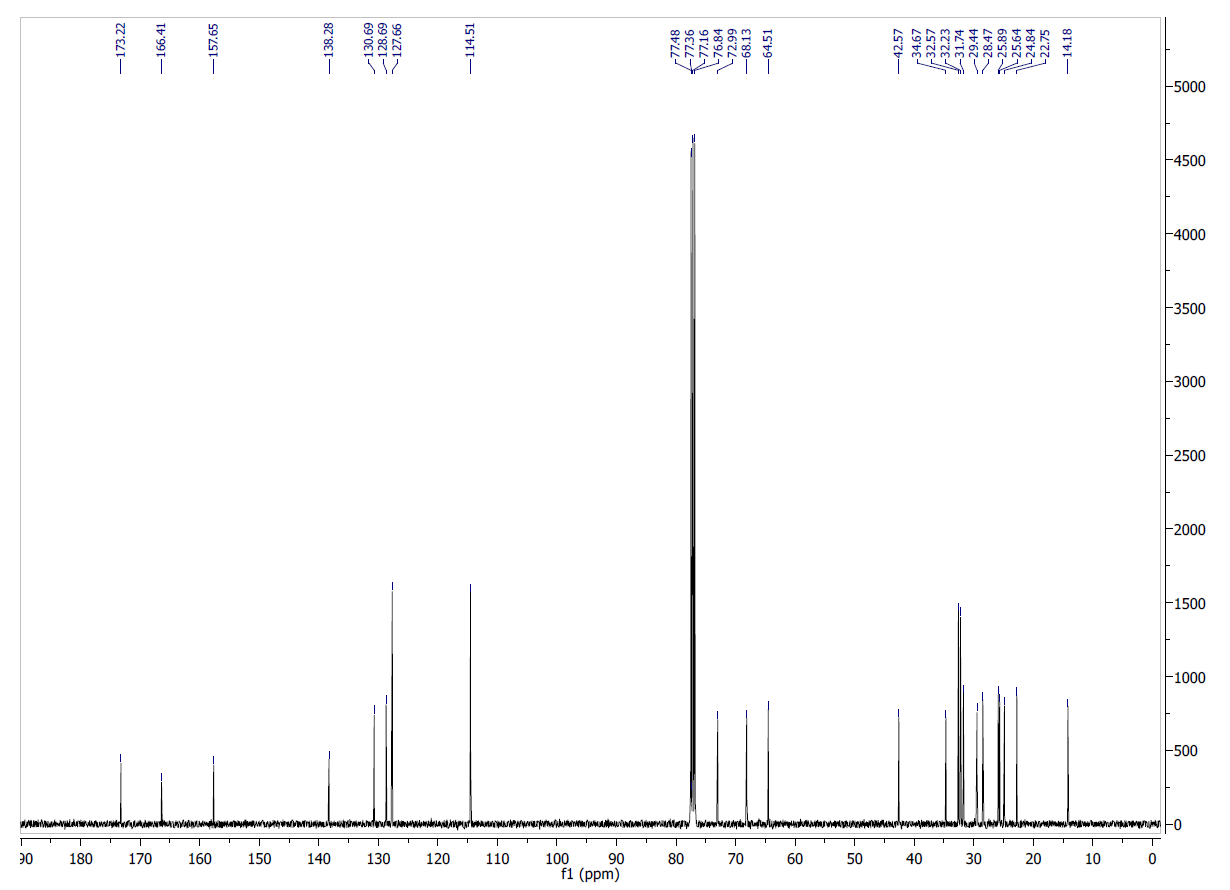
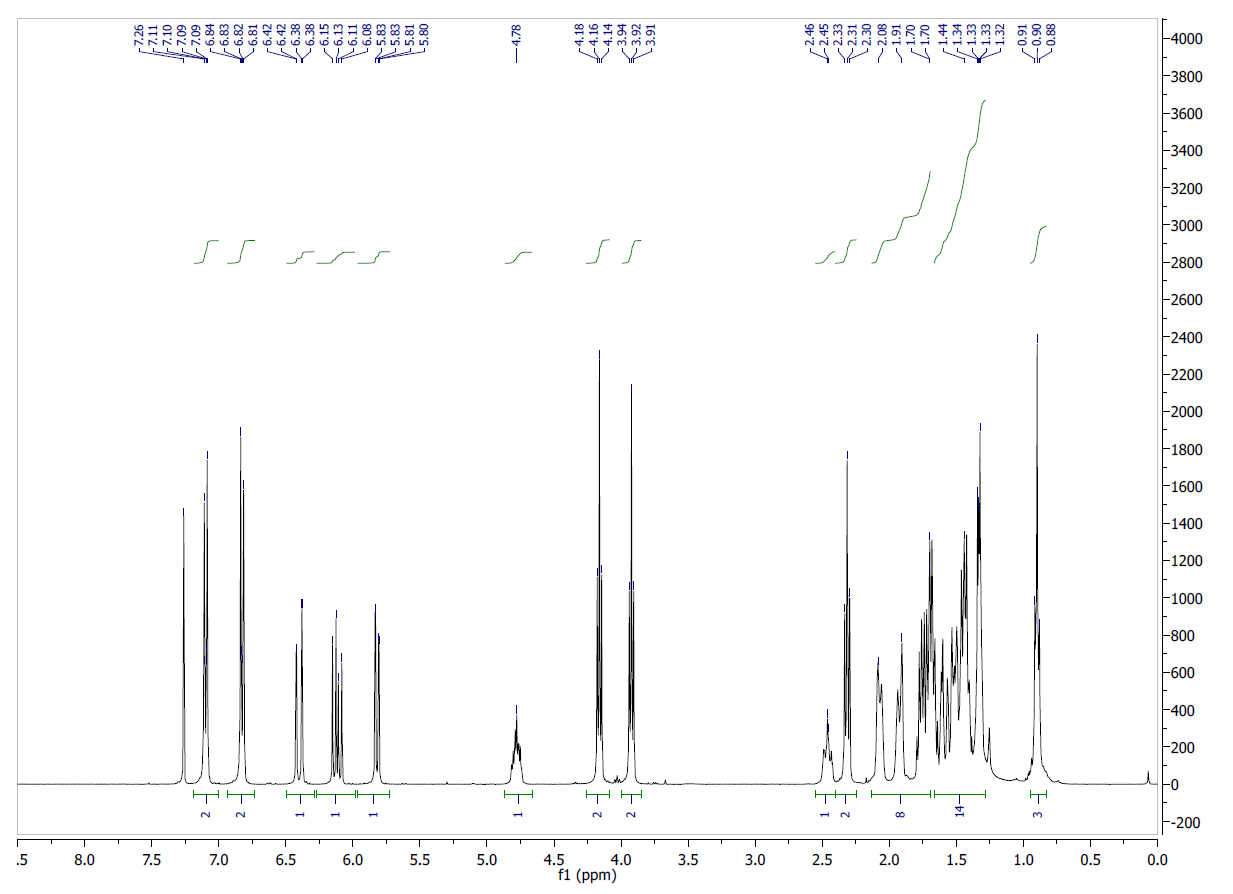
FigureS3. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **13**





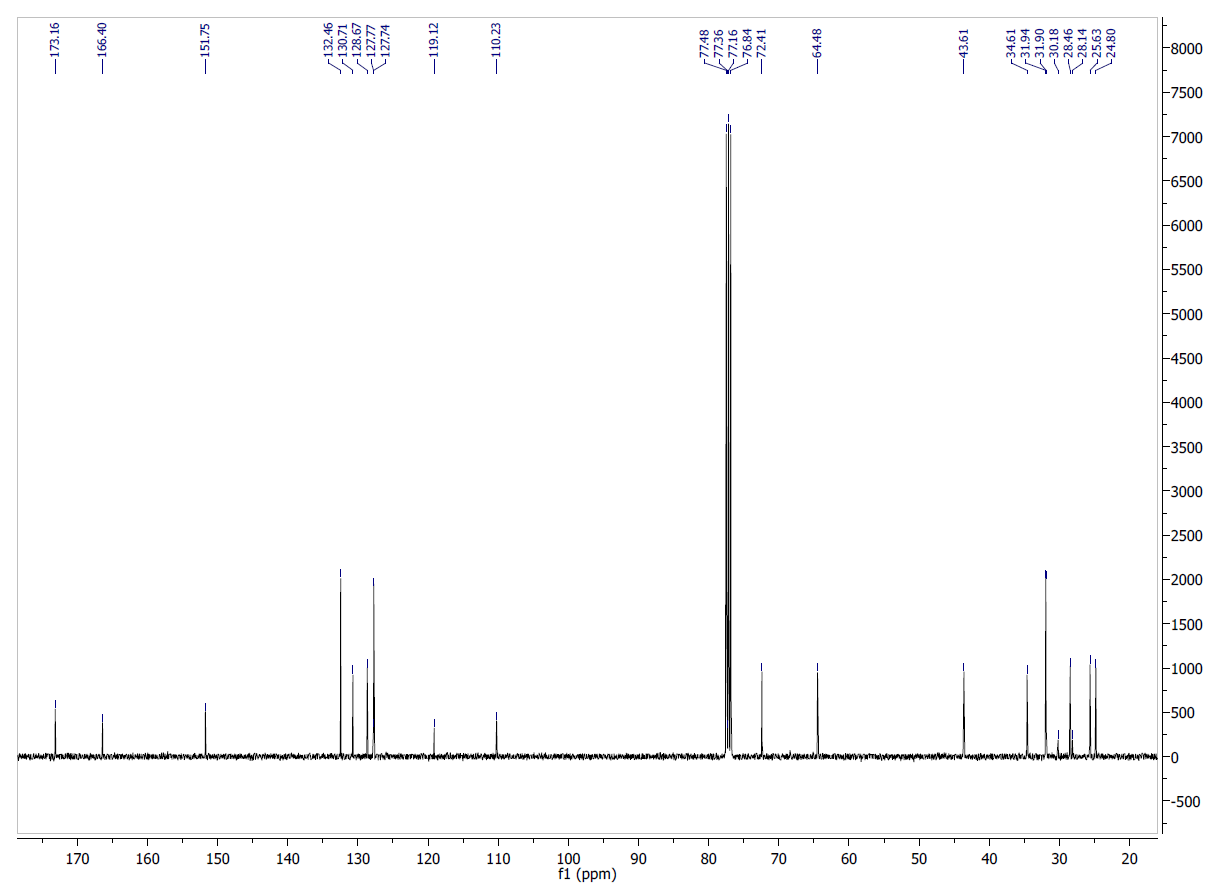
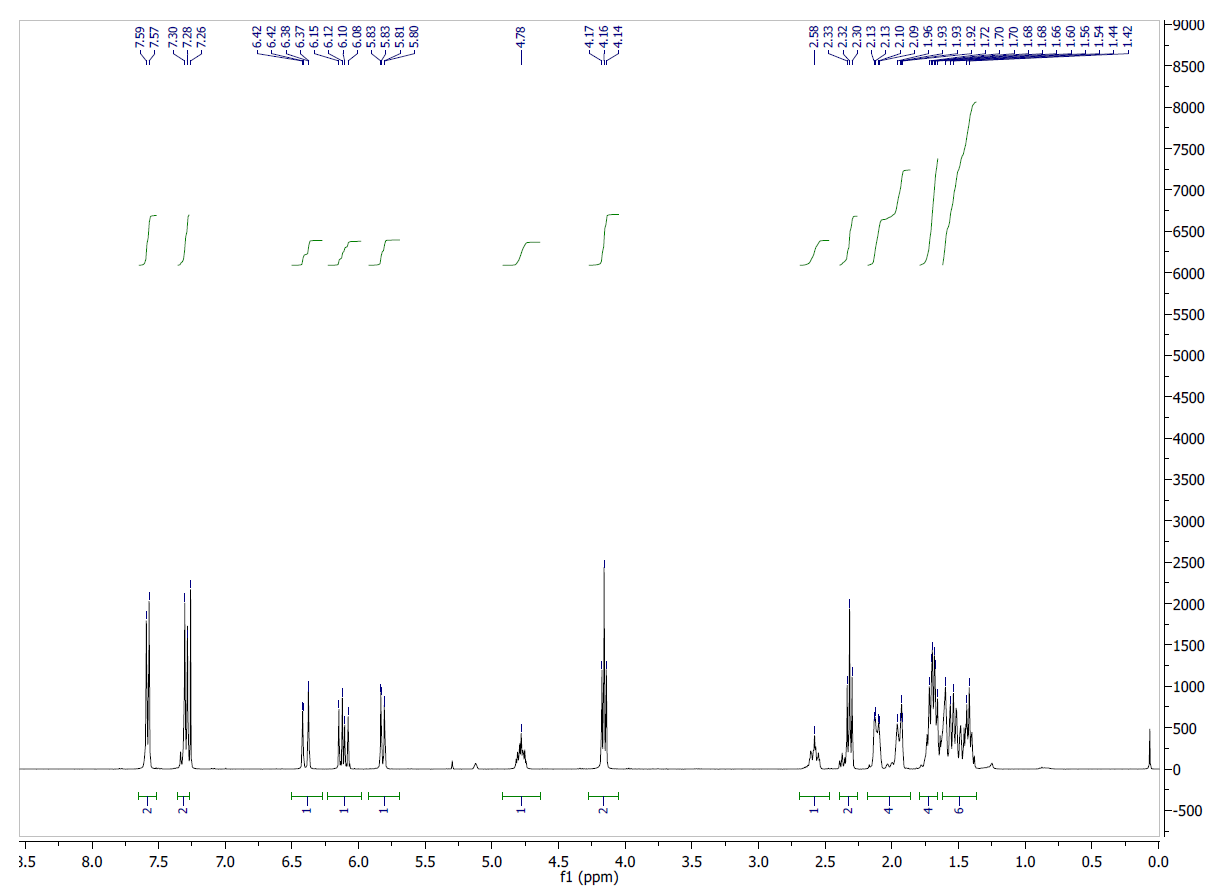
FigureS4. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **14**





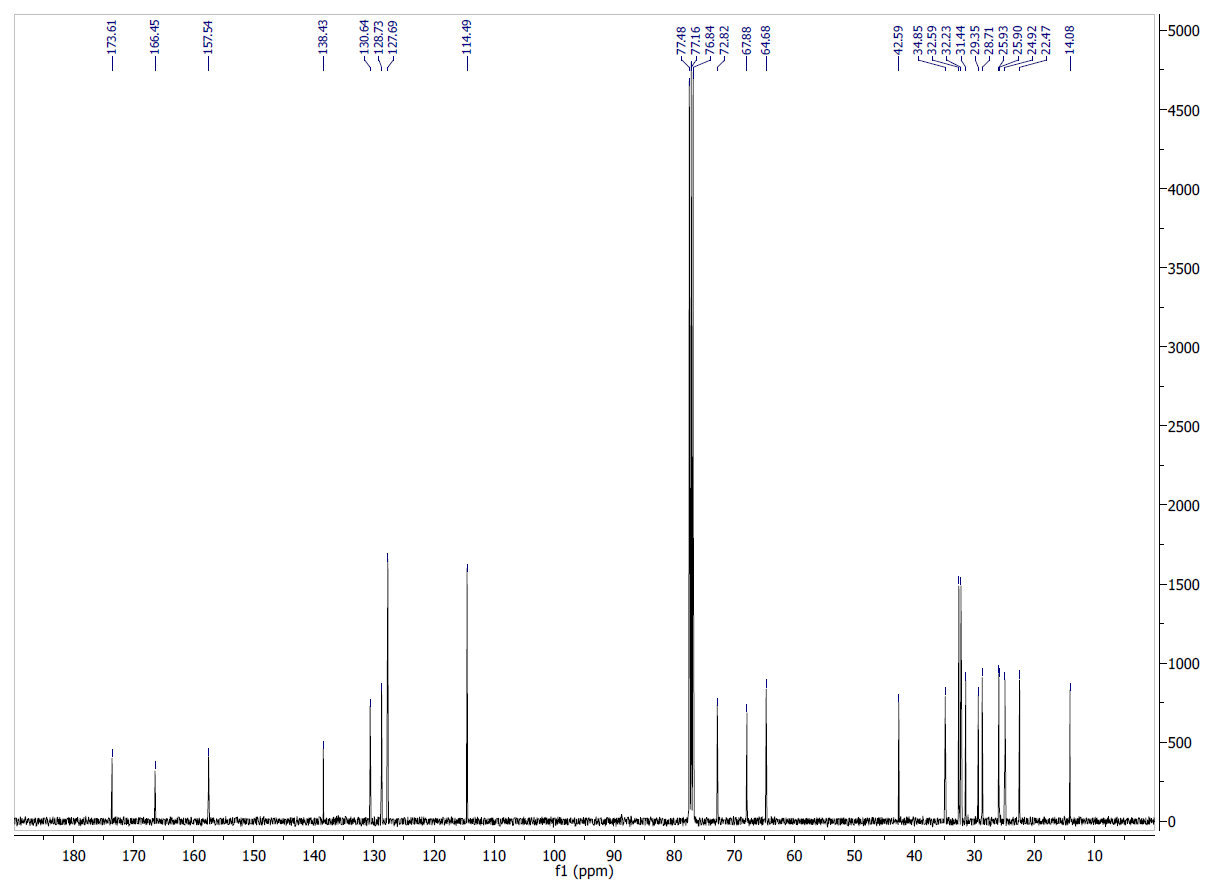
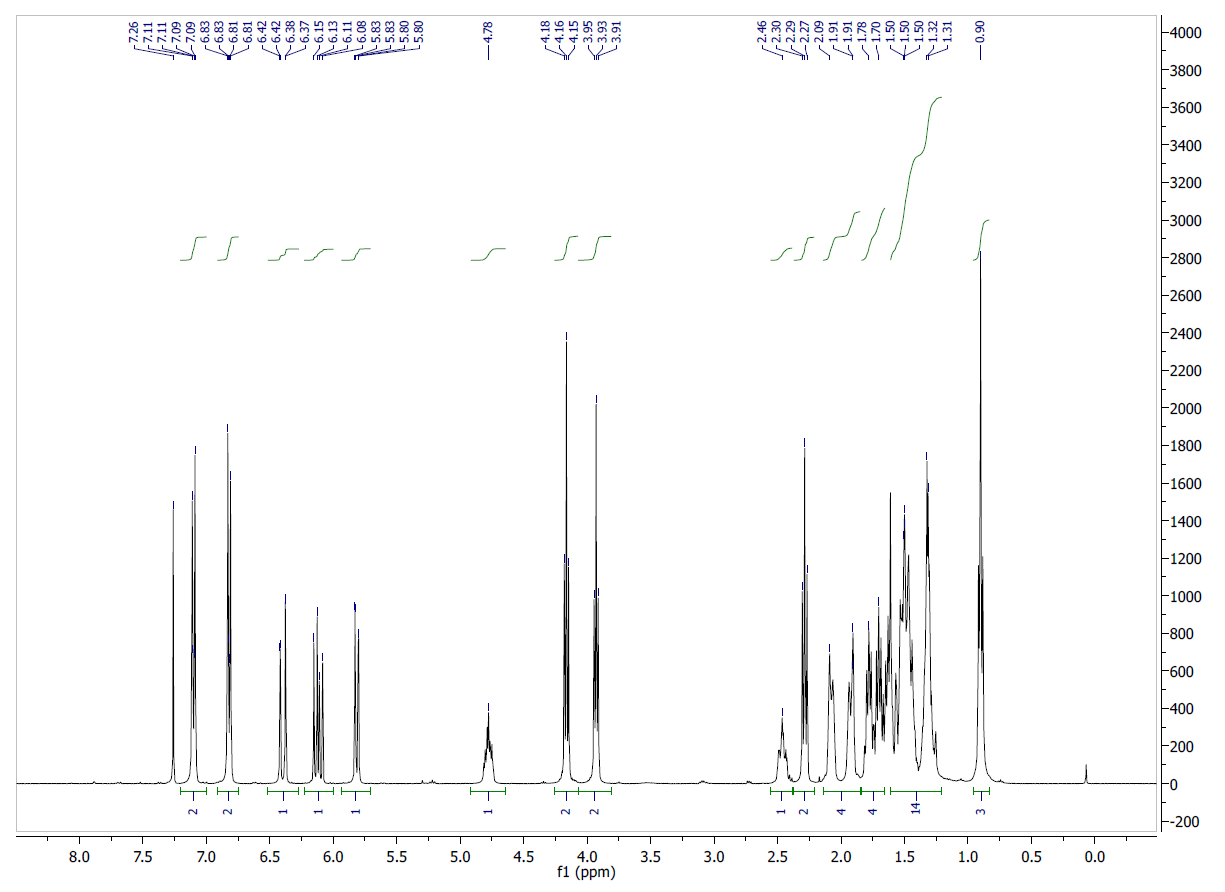
FigureS5. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **15**



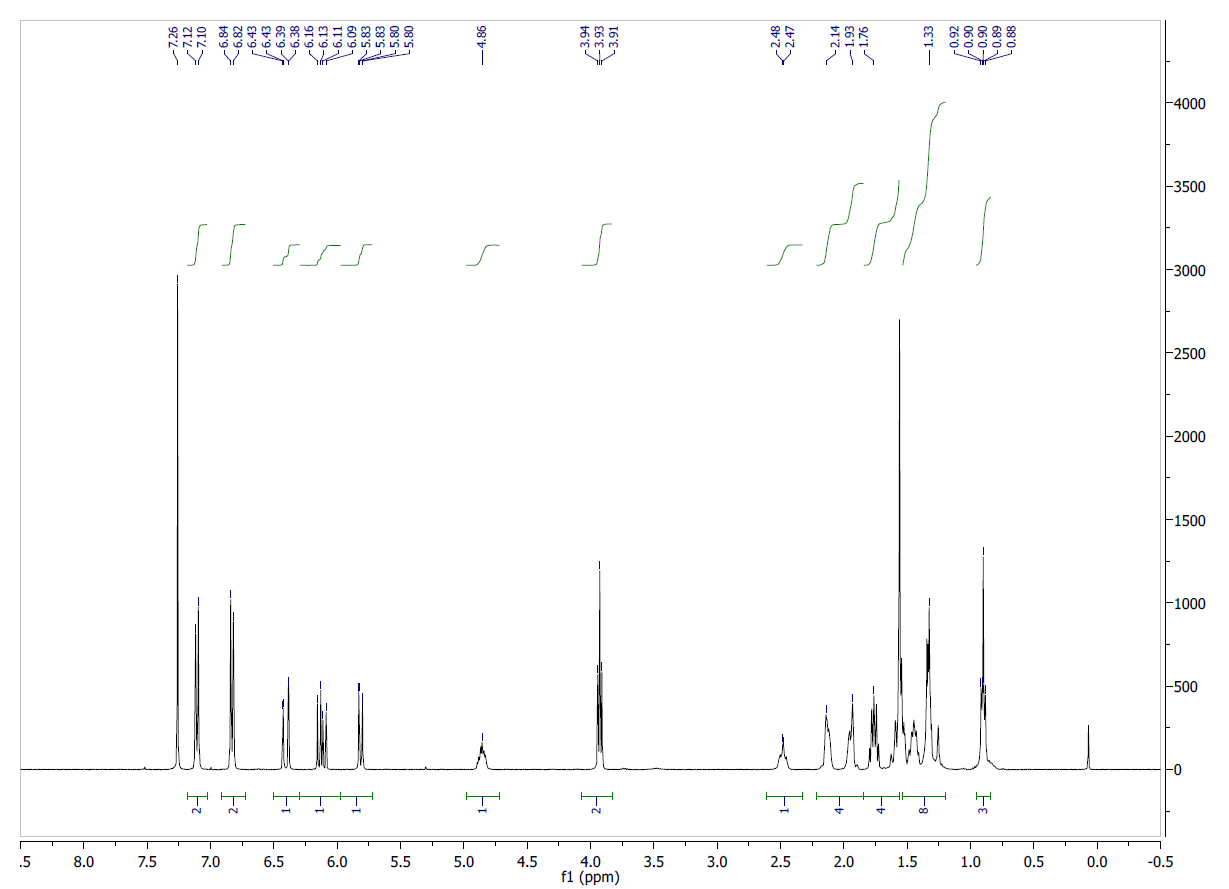


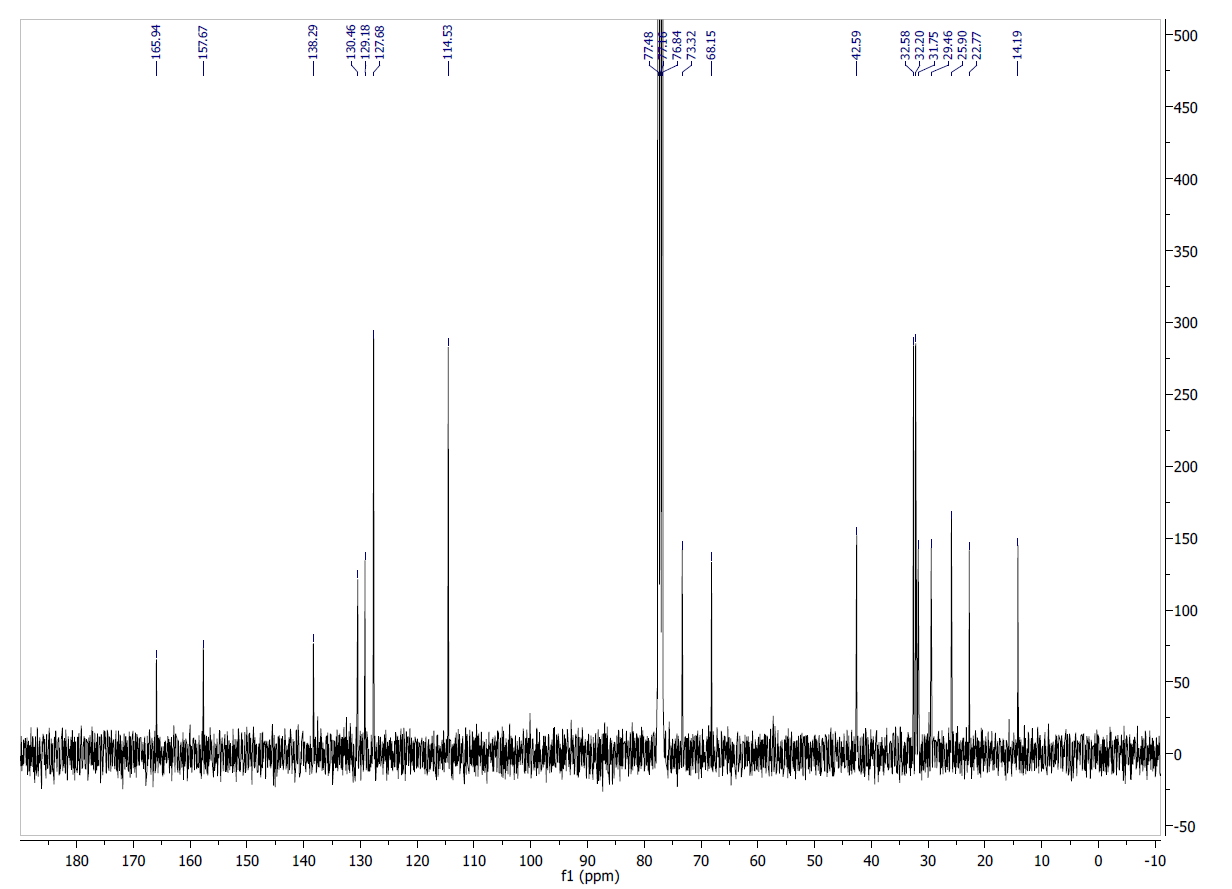
FigureS6. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **16**





FigureS7. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **17**





FigureS8. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **18**



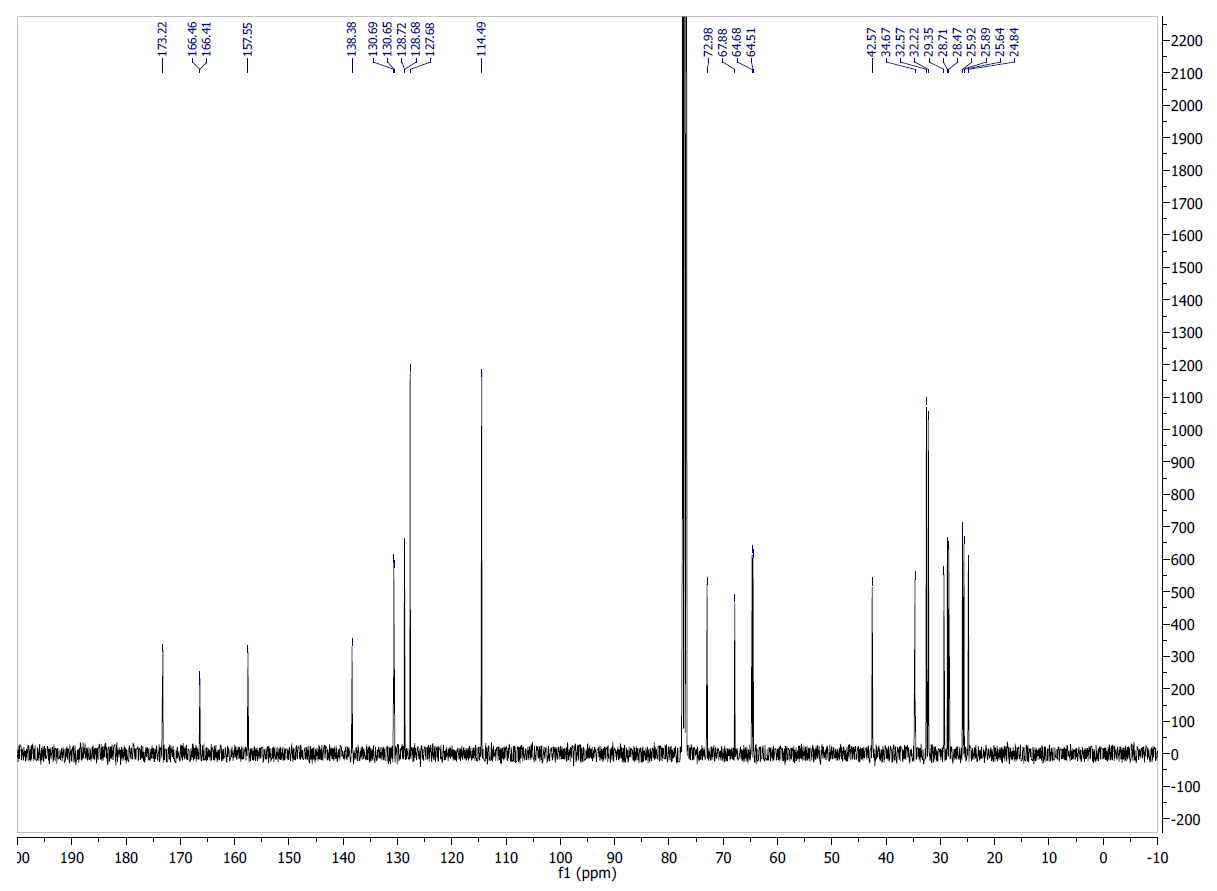
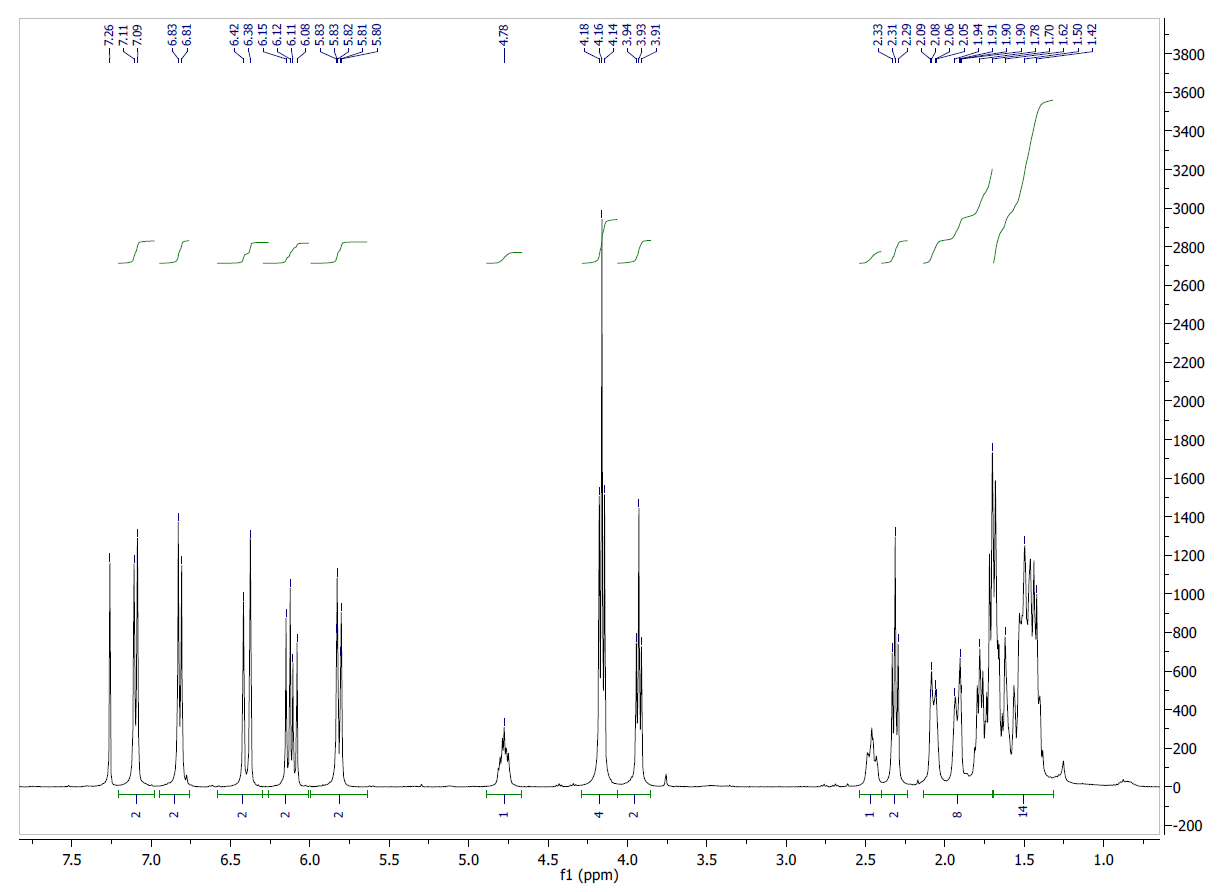
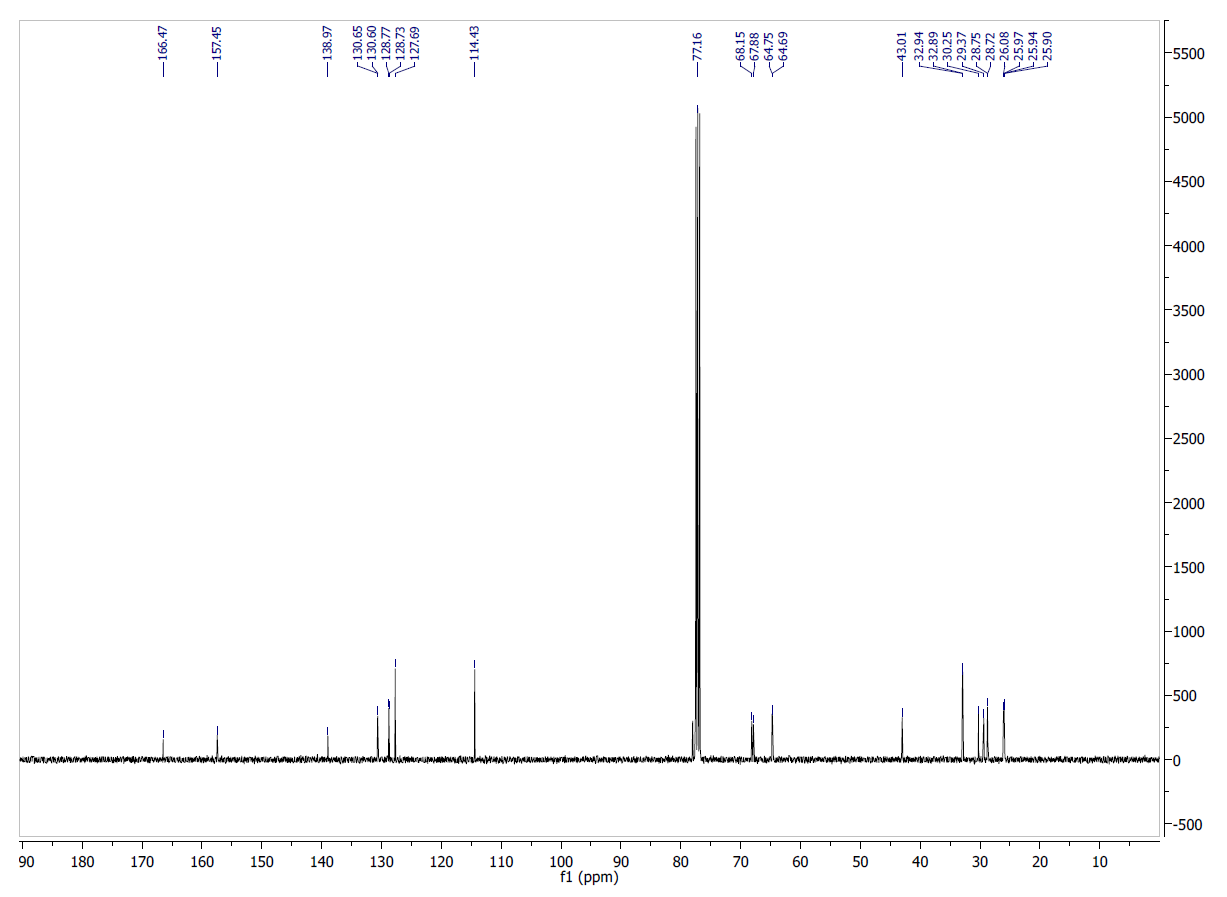
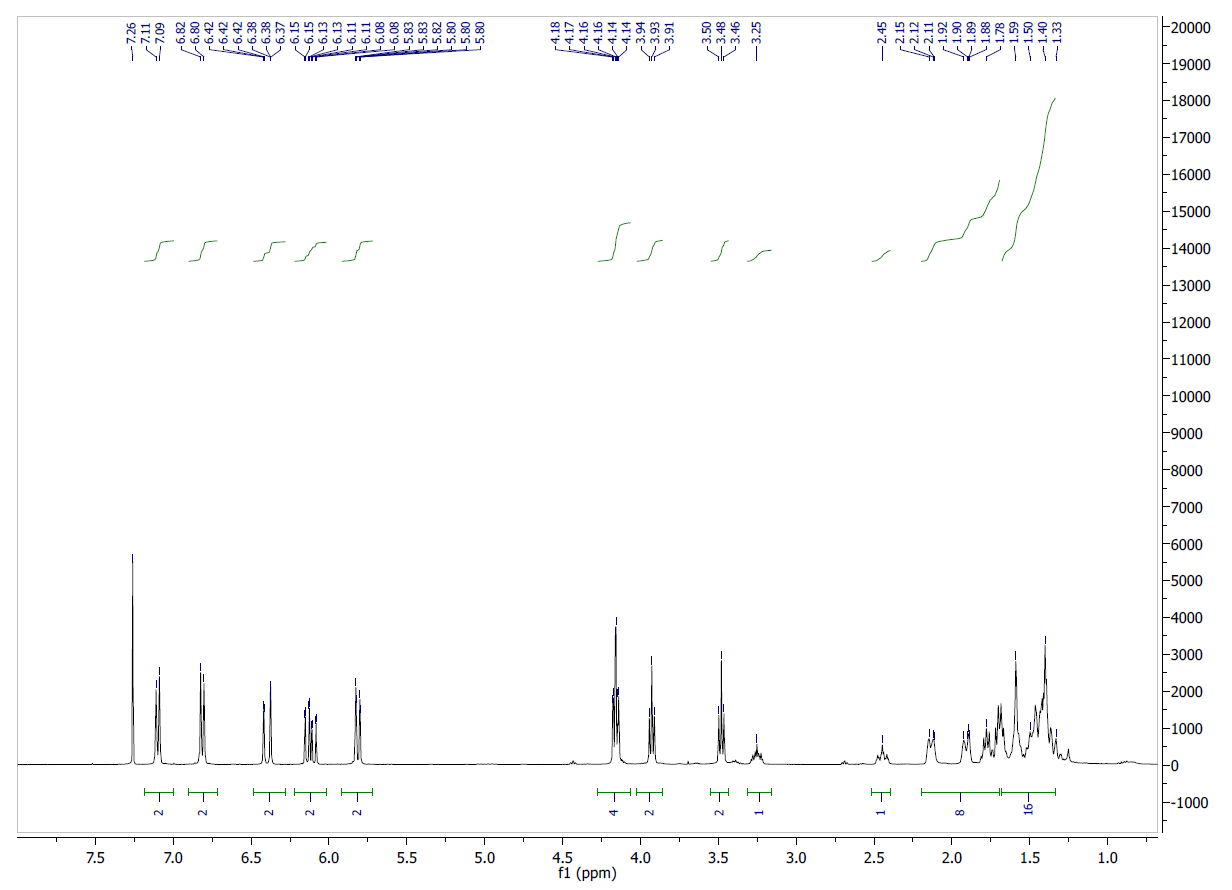


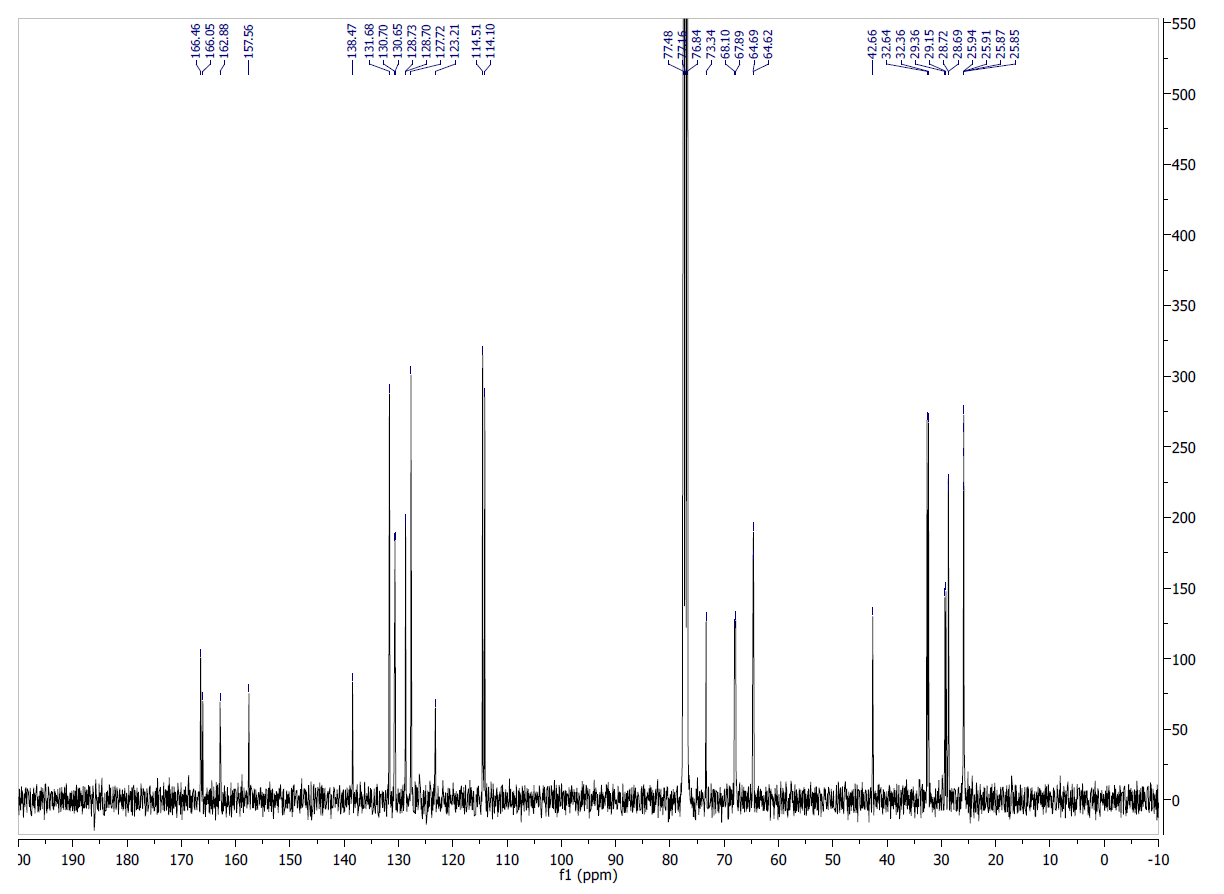
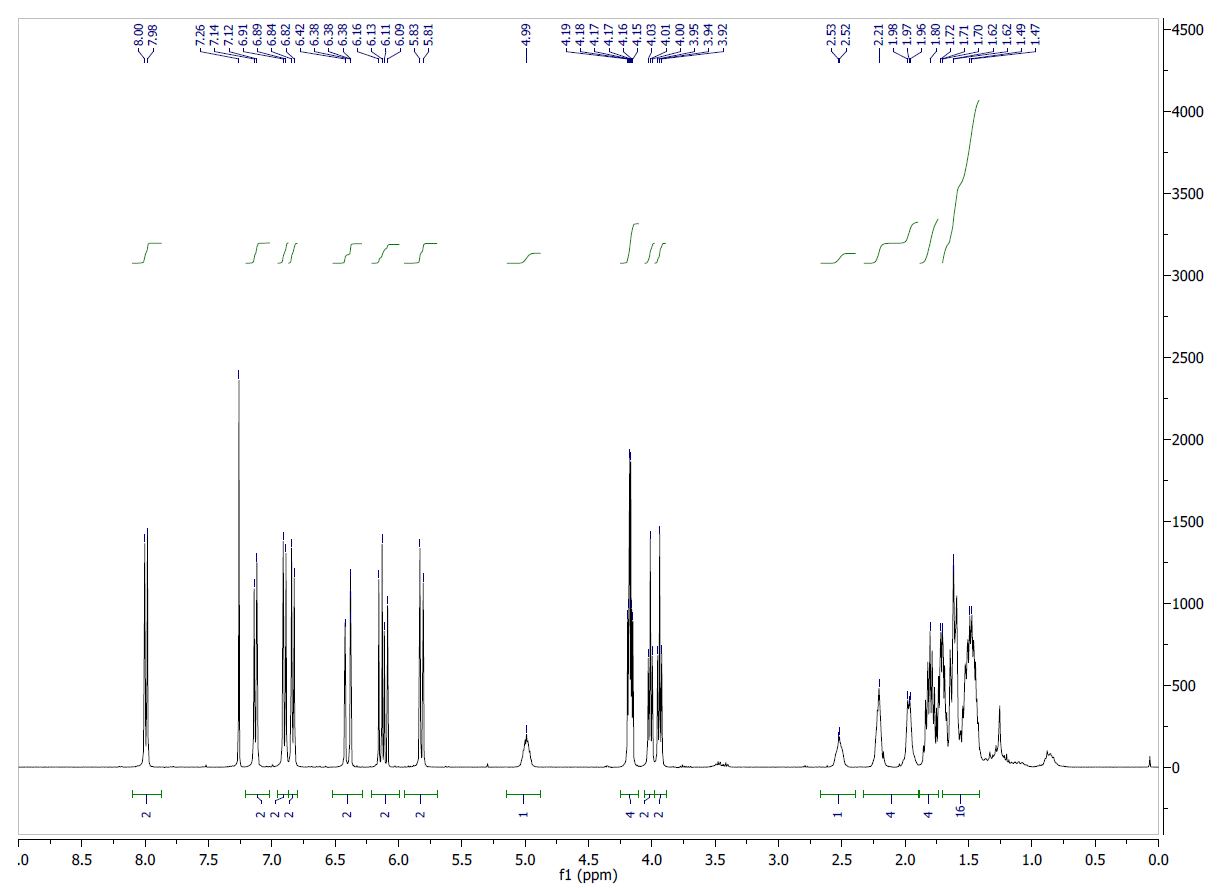
Figure S9. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **19**





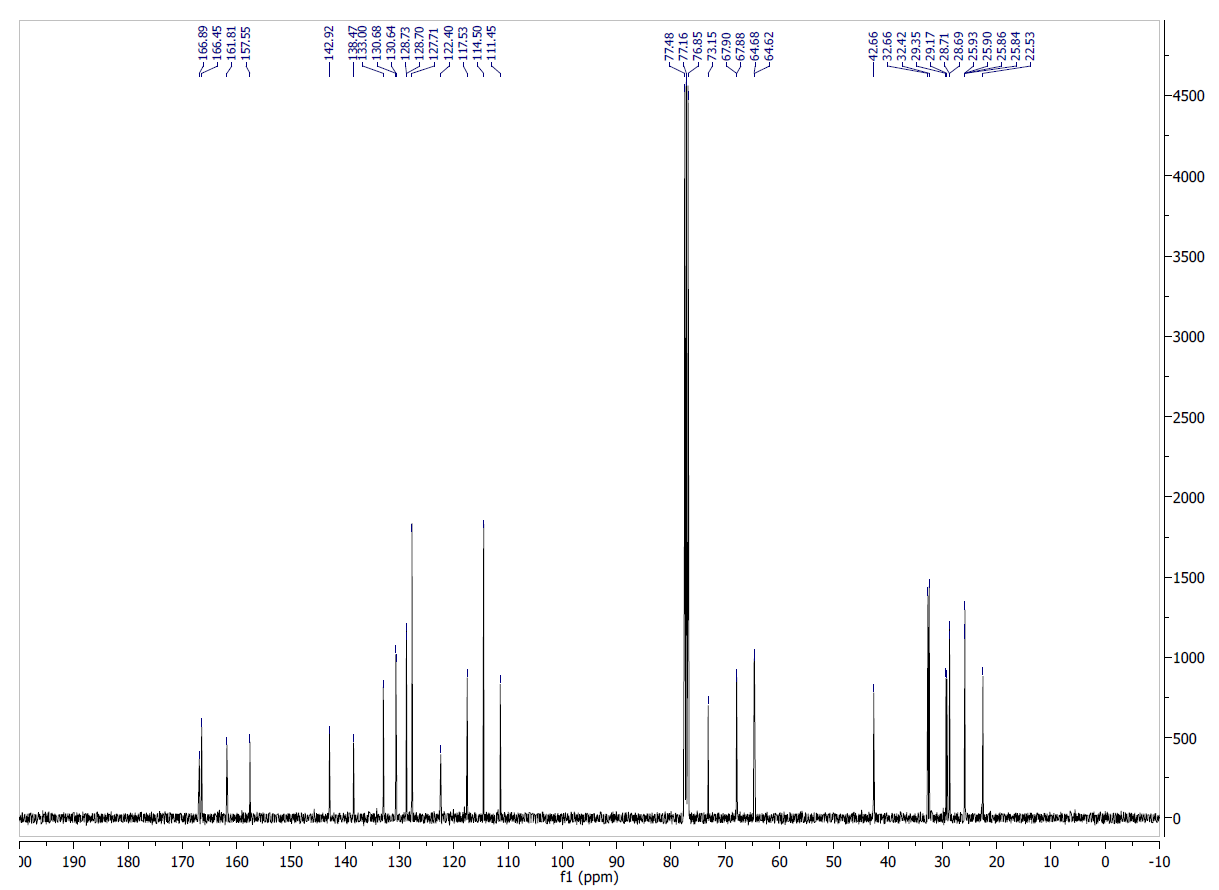
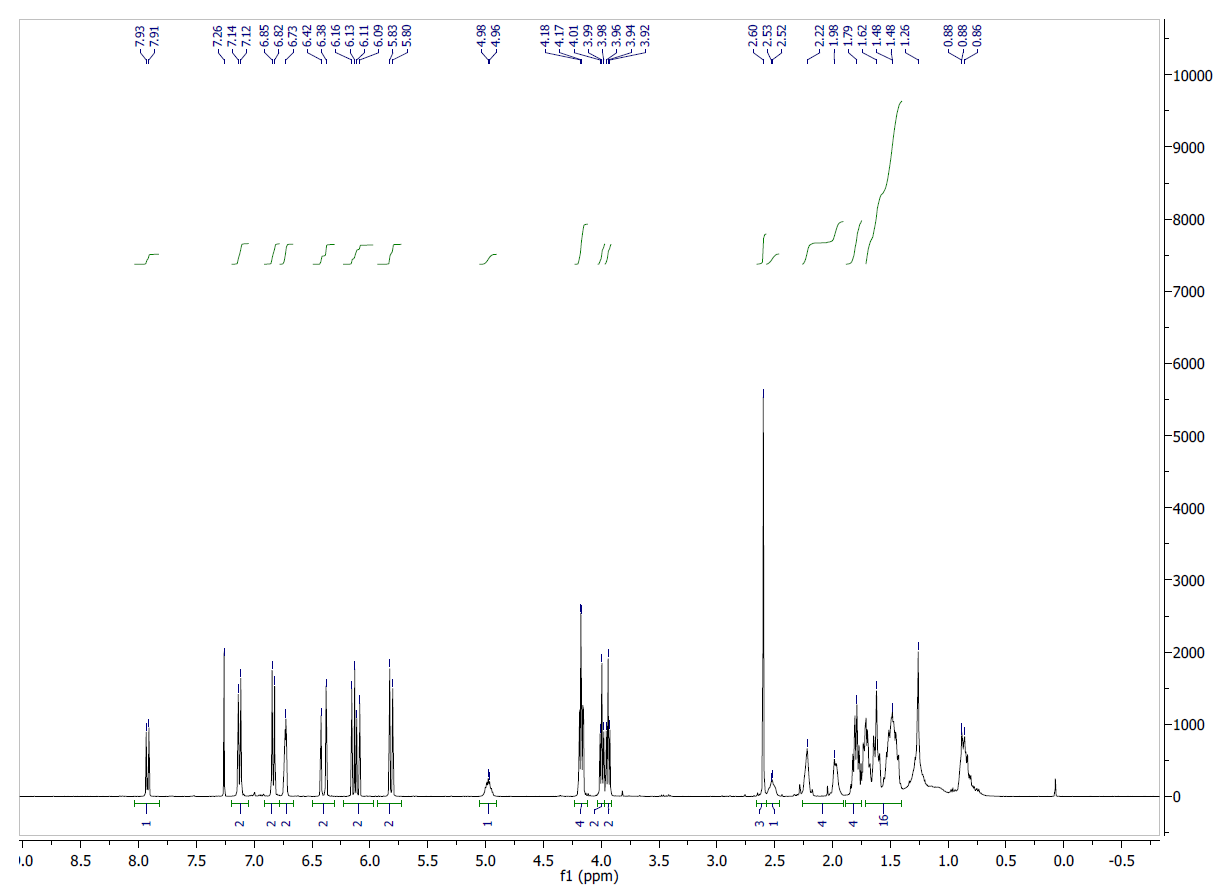
FigureS10. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **20**





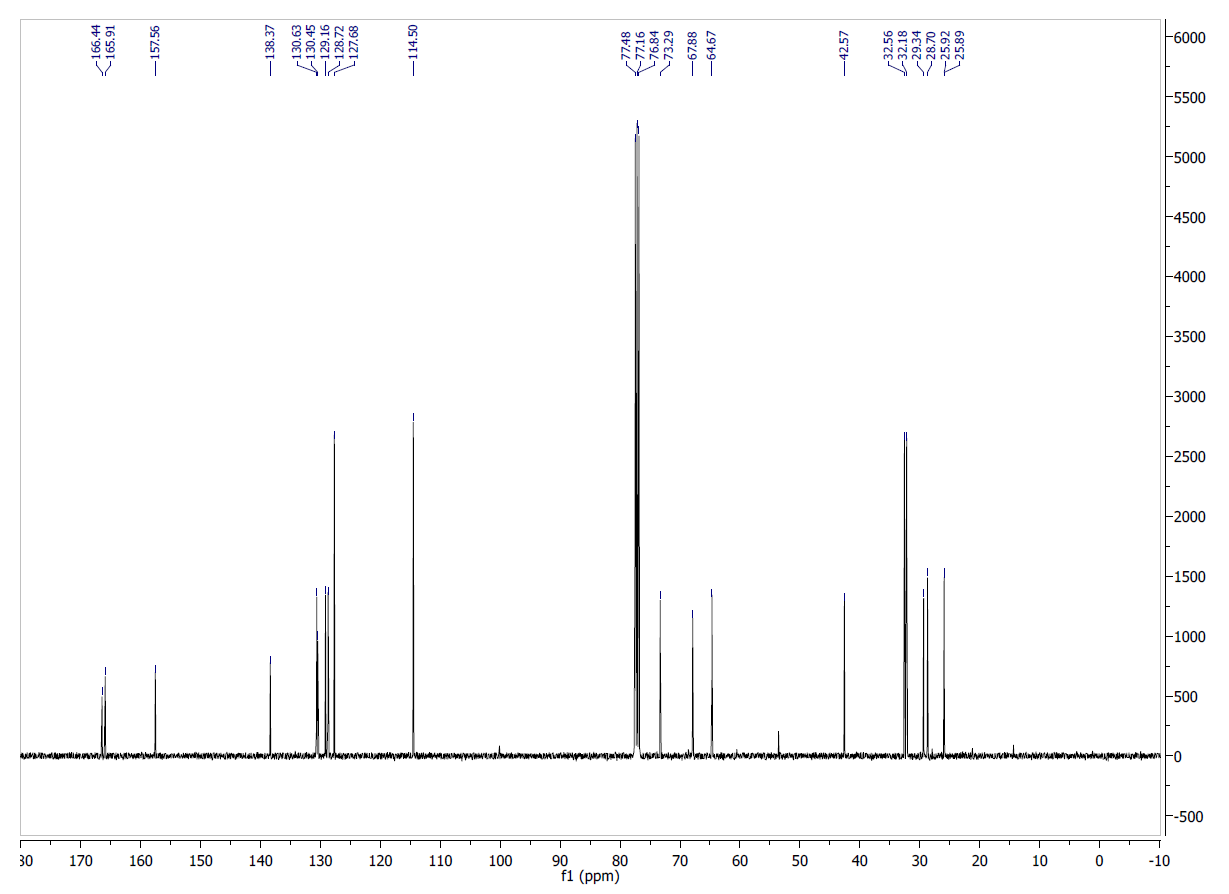
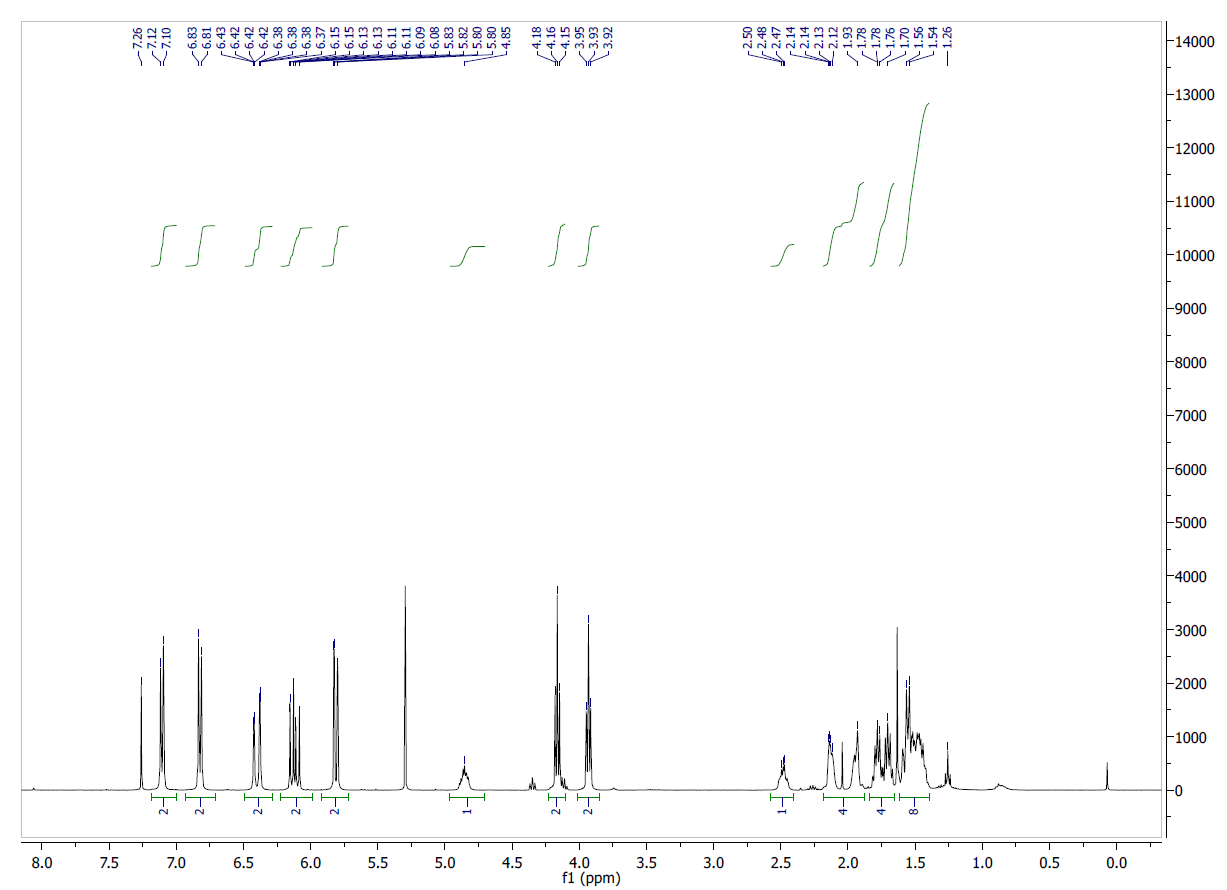
FigureS11. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **21**



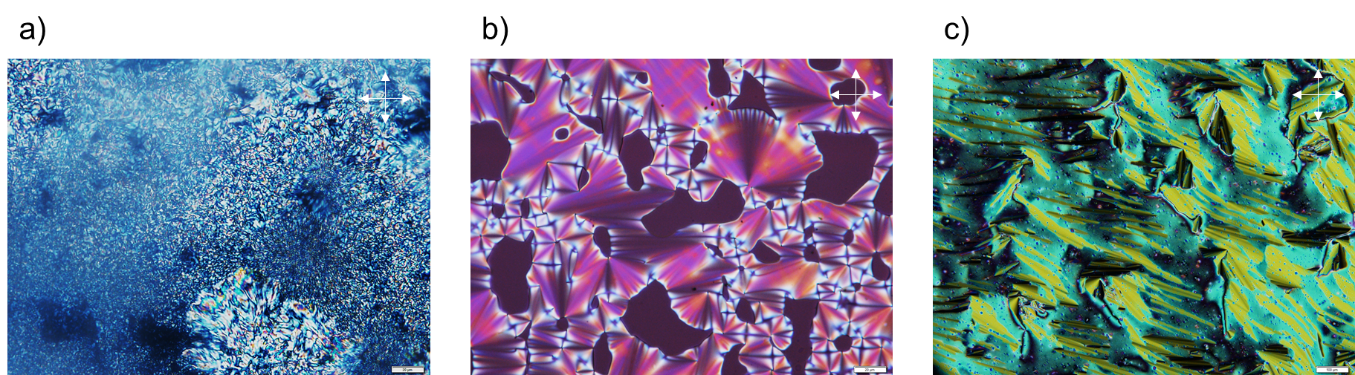


FigureS12. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **22**

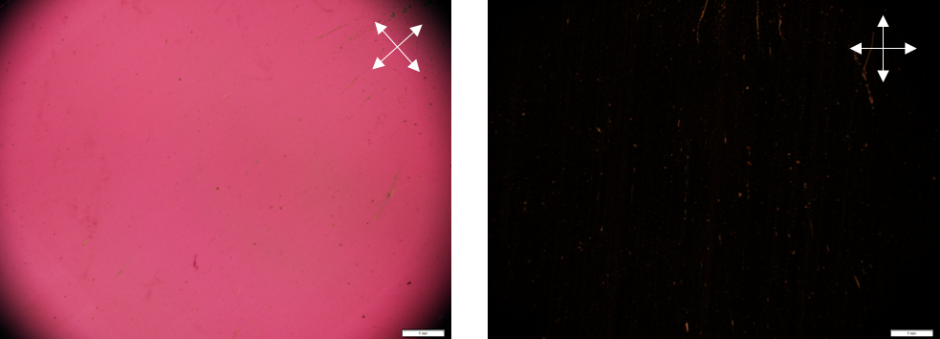




FigureS13. 1H NMR (TOP) (CDCl3, 400 MHz) and 13C NMR (BOTTOM) (CDCl3, 100 MHz) of compound **23**



FigureS14. Polarized optical microscopy images of LC textures of compound 20 (-10oC) (a), compound 21 (100oC) (b), and compound 22 (50oC) (c). Scale bares correspond to 20, 100 and 20 m, respectively. Polarizer and analyzer are represented with white arrows.



FigureS15. Polarized optical microscopy images of LCPN film TN with unidirectional alignment. Scale bare corresponds to 1mm. Polarizer and analyzer are represented with white arrows.

Table S1. Compositions (in wt.%) and nematic to isotropic transition temperatures of the mixtures consisting of mono-acrylates **12-14**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 12 | 13 | 14 | TN-I, oC |
| Mix1 | 30 | 30 | 40 | 21.9 |
| Mix2 | 10 | 30 | 60 | 26.7 |
| Mix3 | 10 | 20 | 70 | 27.1 |
| Mix4 | 0 | 50 | 50 | 27.5 |
| Mix5 | 0 | 40 | 60 | 29.0 |