Mesophase behavior of laterally di-fluoro substituted four-ring compounds.

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Supplementary ^1H -NMR spectral data of 4-(3-fluoro phenylazo)-2'-fluoro phenyl-4''-hexyloxyphenylazo benzoate (**IV6**).

The multiplet peak at 4.08 ppm is due to the methoxy protons ($-\text{OCH}_2-$) of the terminal hexyl chain. The multiplet peak at 1.85 ppm is a signal from the protons of the methylene group next to methoxy protons ($-\text{OCH}_2\text{CH}_2-$). The multiplet peaks between 1.21-1.56 ppm correspond to methylene protons ($-\text{OCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2-$) of the terminal hexyloxy group. The signal of methyl group appears at 0.92 ppm. The multiplet peaks due to the aromatic protons appear at $\delta = 7.03$ -7.06 ppm for 5''' and 6''', at $\delta = 7.17$ -7.33 ppm for 3'', 5'' and 4, at $\delta = 7.53$ -7.63 ppm for 3' and 5', at 7.64-7.68 ppm for 2''' and 6''', at 7.8-8.02 ppm for 6, 6', 2'', 3'', 5'' and 6'', at 8.30-8.36 ppm for 2''' and 6''' aromatic protons (see Figure 2).

Fig 2. ^1H NMR spectrum of the compound **IV6**.