

Supplementary Material

The first example of amine-induced reversal of diastereoselectivity in acylation of some *trans*-2-substituted cyclohexanols

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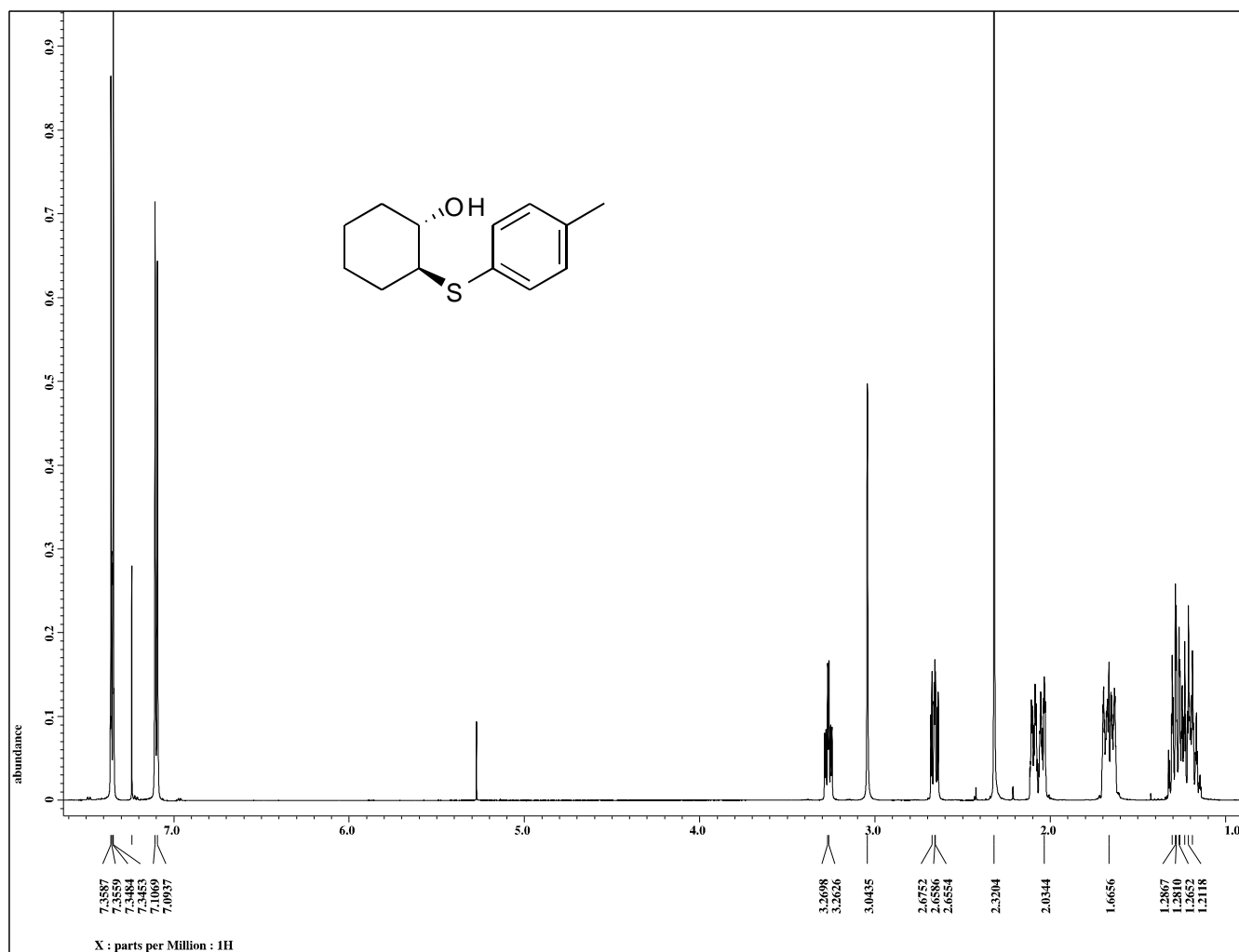
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NMR Spectra

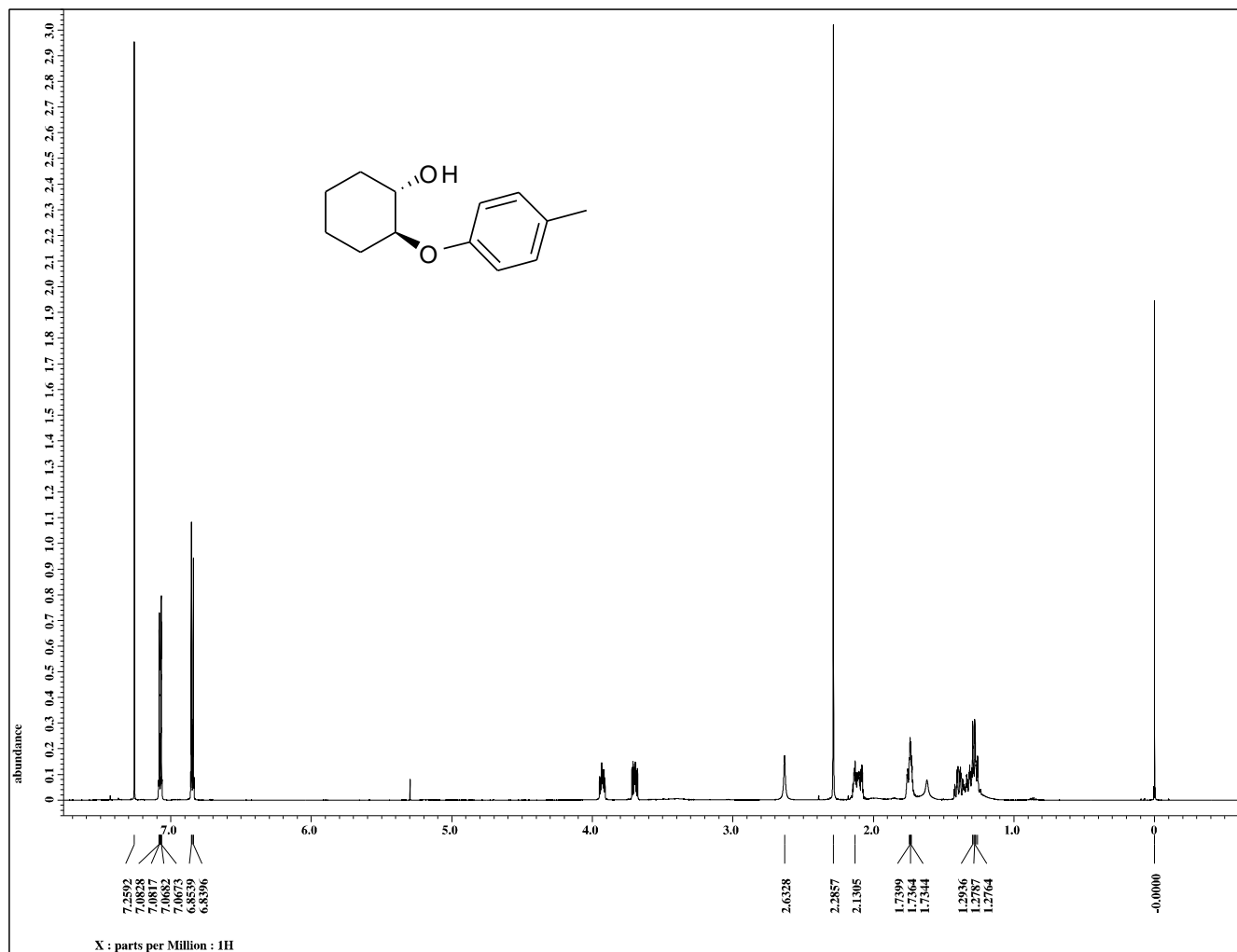
S2

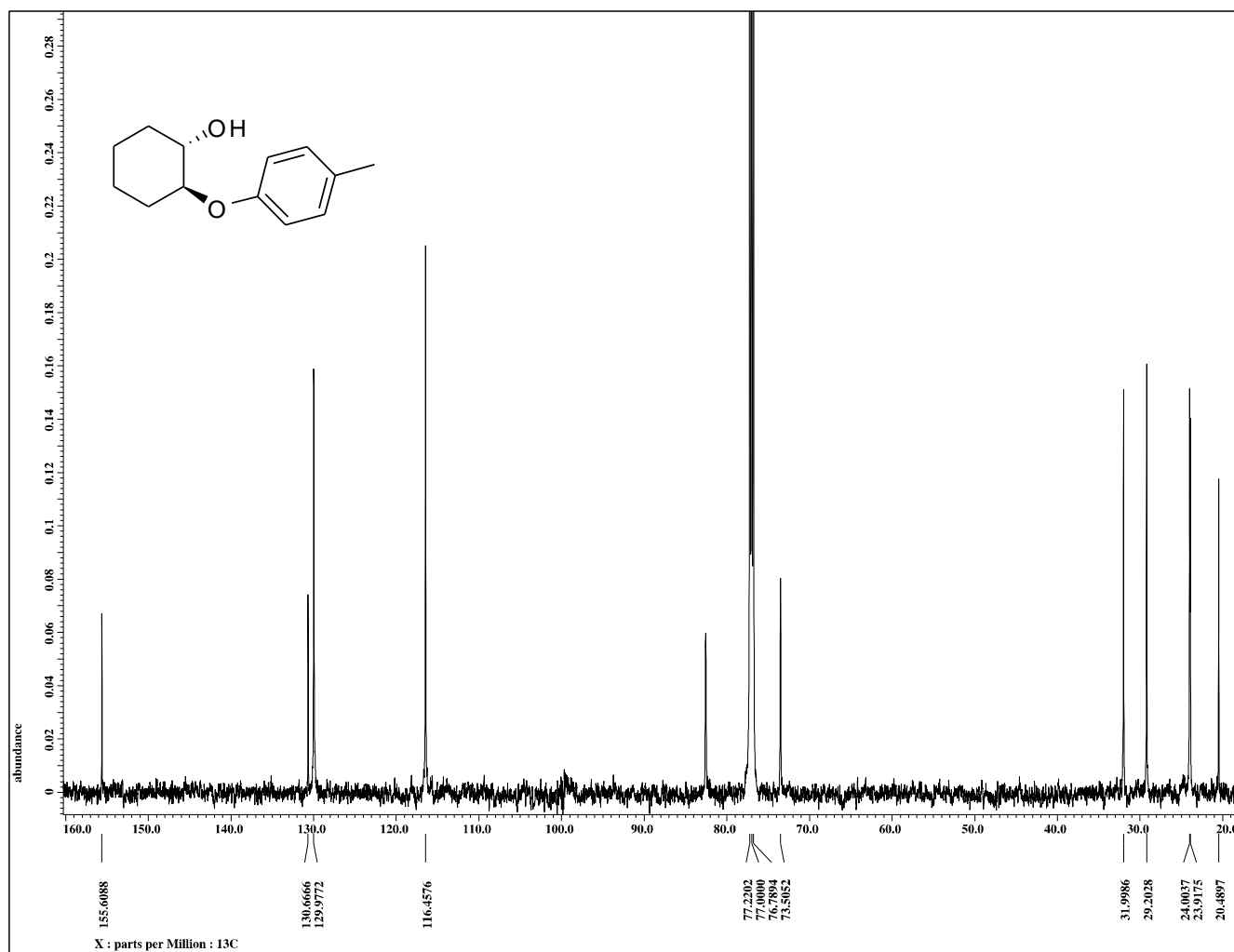


Compound (\pm) -*trans*-**1a**: $^1\text{H-NMR}$ of (\pm) -*trans*-2-(*p*-tolylsulfanyl)cyclohexanol

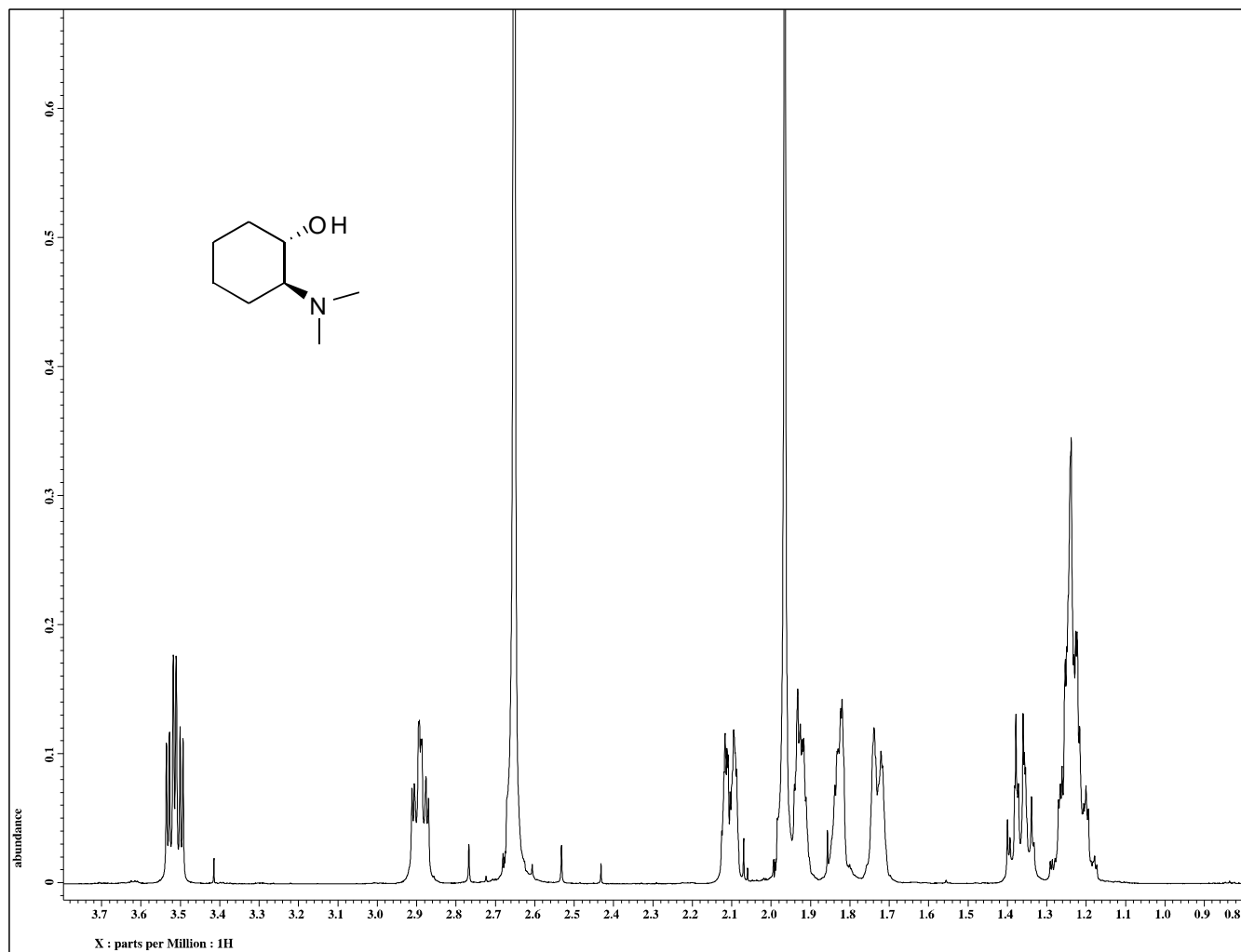


Compound (\pm)-*trans*-**1a**: ^{13}C -NMR of (\pm)-*trans*-2-(*p*-tolylsulfanyl)cyclohexanol

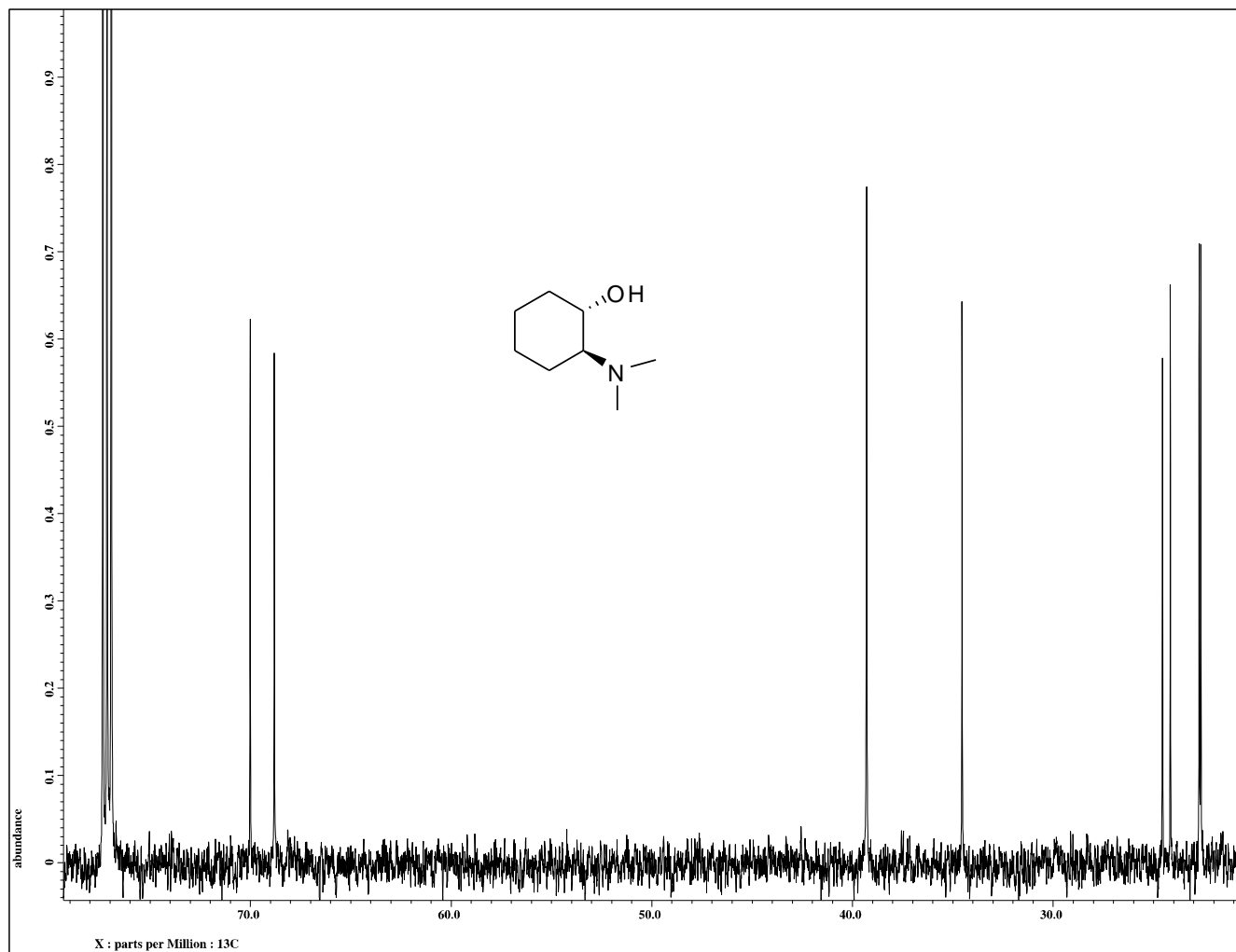
Compound (\pm)-*trans*-**1b**: ¹H-NMR of *trans*-2-(*p*-tolyl)oxy)cyclohexanol



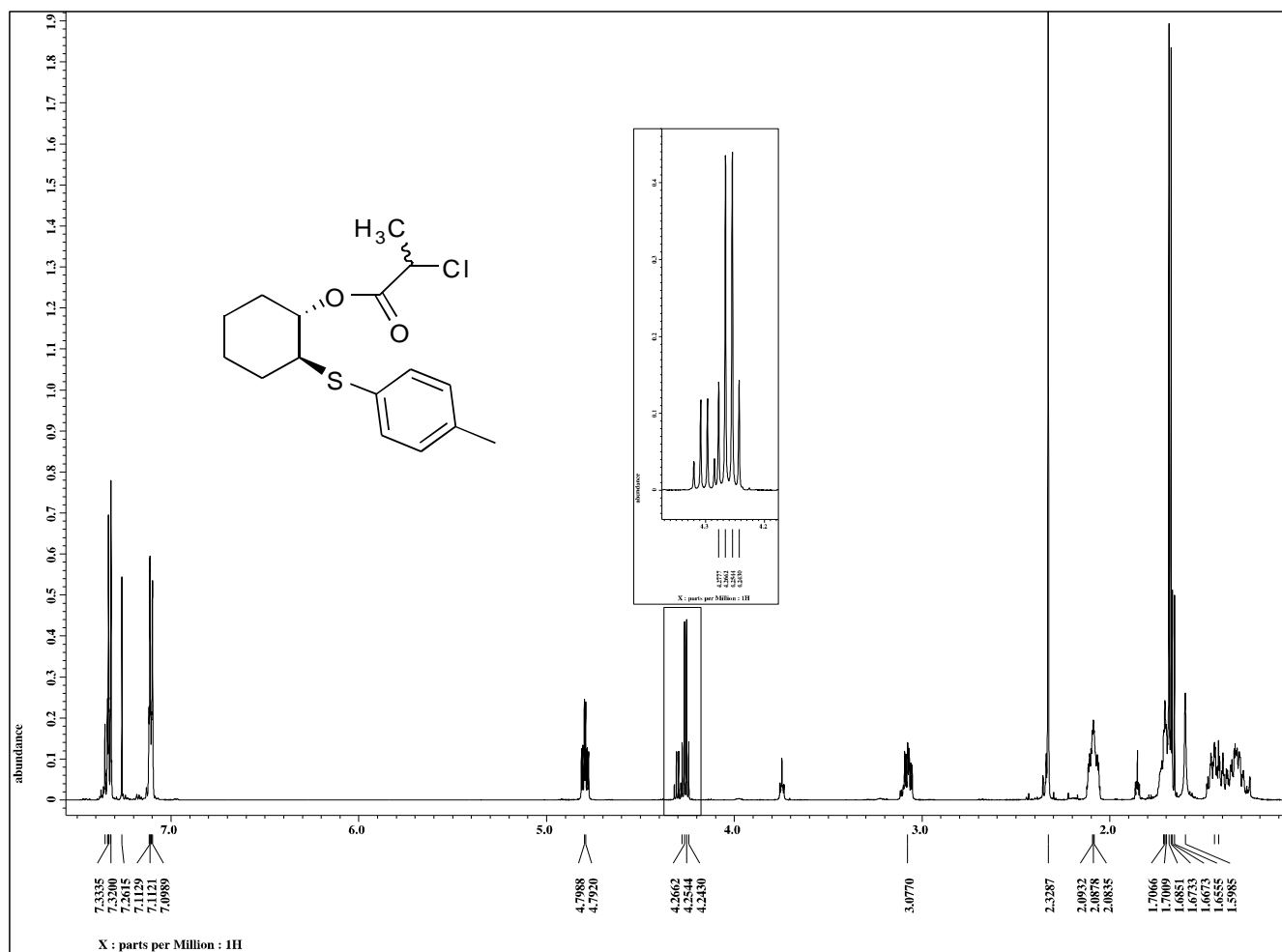
Compound (\pm)-*trans*-**1b**: ^{13}C -NMR of *trans*-2-(*p*-tolyl)oxy)cyclohexanol



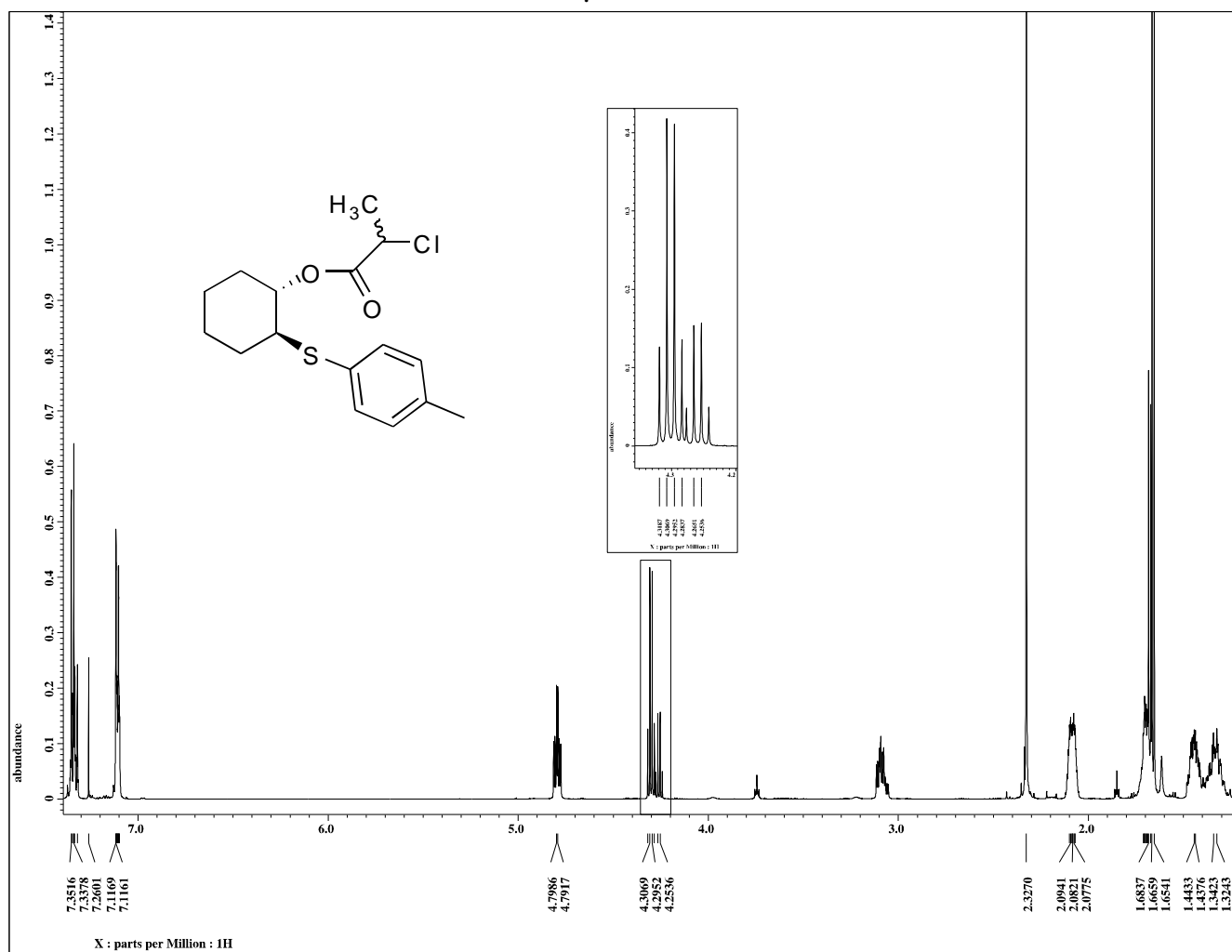
Compound (±)-*trans*-1c: ¹H-NMR of *trans*-2-(dimethylamino)cyclohexanol



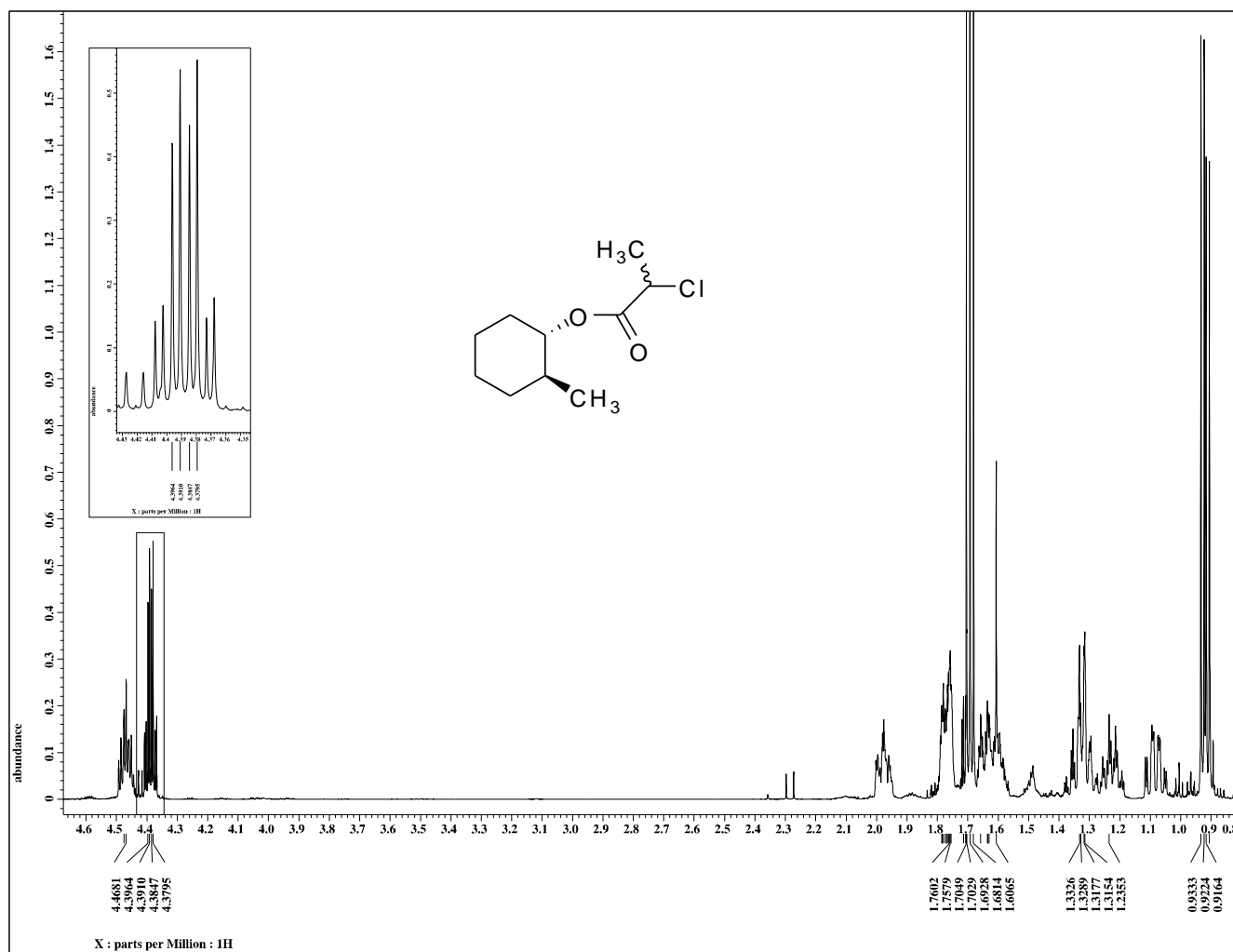
Compound (\pm)-*trans*-**1c**: ^{13}C -NMR of *trans*-2-(dimethylamino)cyclohexanol



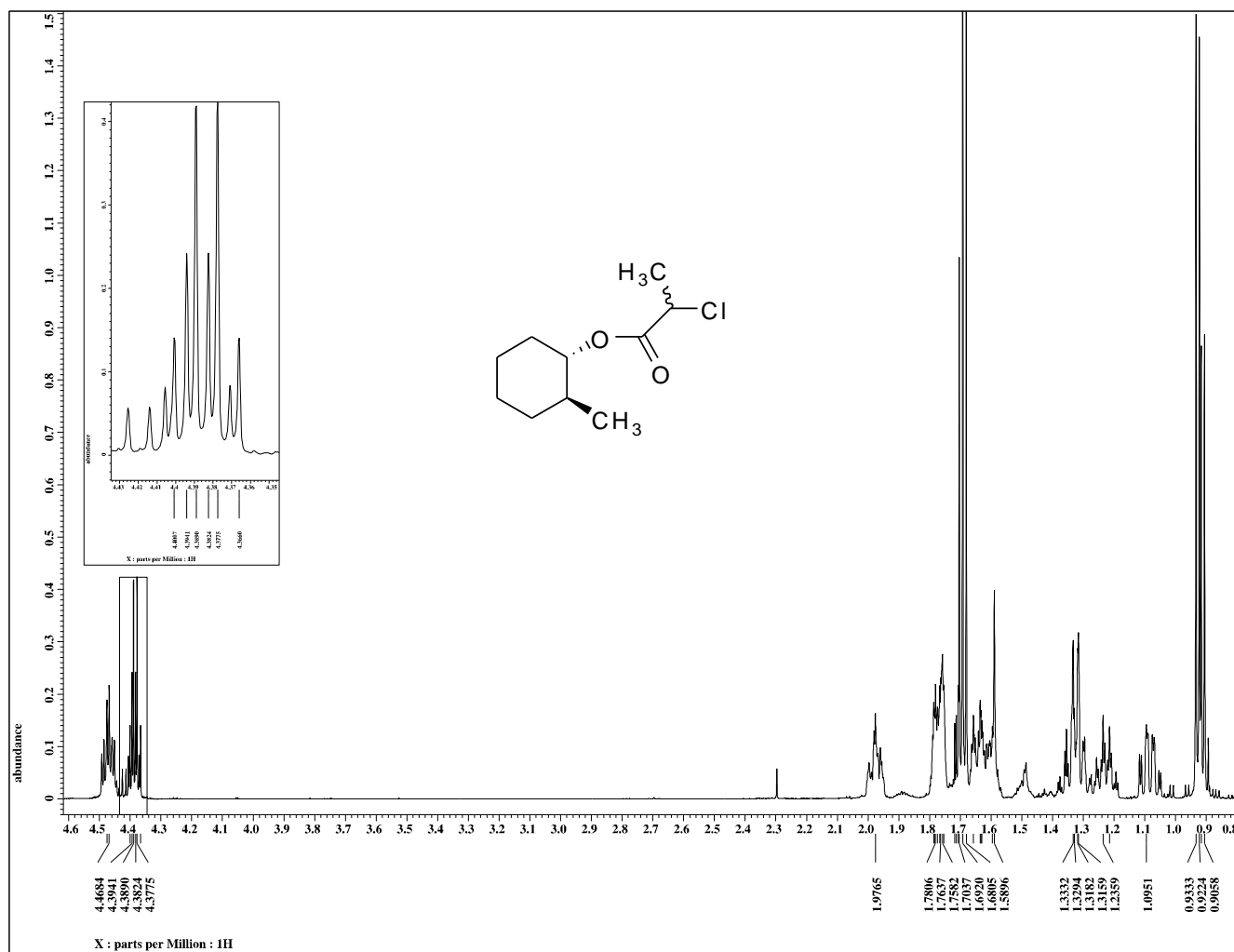
Mixture **3a/4a**: $^1\text{H-NMR}$ of isolated mixture of (\pm)-*trans*-2-(*p*-tolylsulfanyl)cyclohexyl 2-chloropropanoates produced without pyridine



Mixture **3a/4a**: ¹H-NMR of isolated mixture of (±)-*trans*-2-(*p*-tolylsulfanyl)cyclohexyl 2-chloropropanoates produced in presence of pyridine



Mixture **3d/4d**: $^1\text{H-NMR}$ of isolated mixture of (\pm) -*trans*-2-methylcyclohexyl 2-chloropropanoates produced without pyridine



Mixture **3d/4d**: $^1\text{H-NMR}$ of isolated mixture of (\pm) -*trans*-2-methylcyclohexyl 2-chloropropanoates produced in presence of pyridine