

*The Journal of Organic Chemistry*

**Supporting Information**

**Addition Reactions of Chloro- or Iodomethylolithium to Imines.  
Synthesis of Enantiopure Aziridines and  $\beta$ -Chloroamines**

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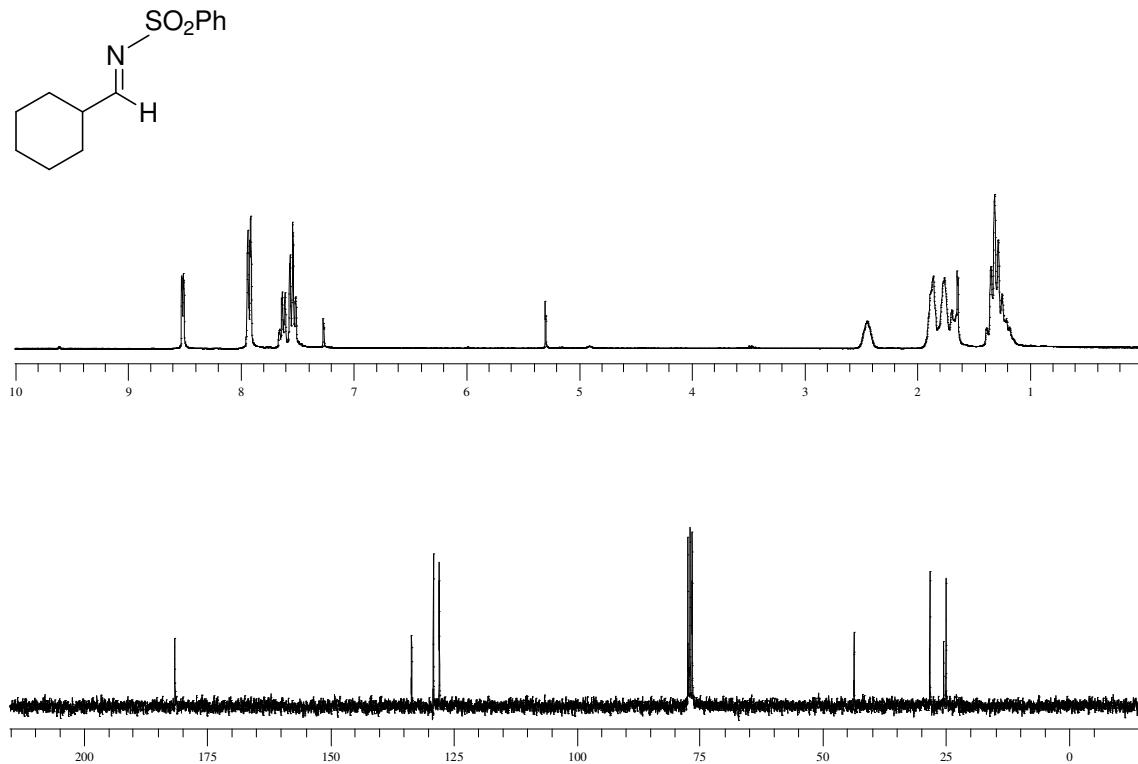
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<b>General</b>	<b>S2</b>
<b>Cyclohexyl-<i>N</i>-phenylsulfonylmethanimine (1f)</b>	<b>S2</b>
<b>(4-Chlorophenyl)-<i>N</i>-phenylsulfonylmethanimine (1g)</b>	<b>S3</b>
<b>(4-Methoxyphenyl)-<i>N</i>-phenylsulfonylmethanimine (1h)</b>	<b>S4</b>
<b>2-Cyclohexyl-1-phenylsulfonylaziridine (2f)</b>	<b>S5</b>
<b>2-(4-Chlorophenyl)-1-phenylsulfonylaziridine (2g)</b>	<b>S6</b>
<b>2-(4-Methoxyphenyl)-1-phenylsulfonylaziridine (2h)</b>	<b>S7</b>
<b>1-Chloro-<i>N</i>-tosylnonan-2-amine (4a)</b>	<b>S8</b>
<b>1-Chloro-3-methyl-<i>N</i>-tosylpentan-2-amine (4b)</b>	<b>S9</b>
<b>2-Chloro-1-cyclohexyl-<i>N</i>-tosylethanamine (4c)</b>	<b>S10</b>
<b>1-Chloro-3-phenyl-<i>N</i>-tosylpropan-2-amine (4d)</b>	<b>S11</b>
<b>2-Chloro-1-phenyl-<i>N</i>-tosylethanamine (4e)</b>	<b>S12</b>
<b>2-Chloro-1-cyclohexyl-<i>N</i>-sulfonylphenylethanamine (4f)</b>	<b>S13</b>
<b>2-Chloro-1-(4-chlorophenyl)-<i>N</i>-sulfonylphenylethanamine (4g)</b>	<b>S14</b>
<b>2-Chloro-1-(4-methoxyphenyl)-<i>N</i>-sulfonylphenylethanamine (4h)</b>	<b>S15</b>
<b>(2<i>S</i>,1'R)-1-Tosyl-2-[1'-(dibenzylamino)ethyl]aziridine (11a)</b>	<b>S16</b>
<b>(2<i>R</i>,1'S)-1-Tosyl-2-[1'-(dibenzylamino)-3'-(methyl)butyl]aziridine (11b)</b>	<b>S17</b>
<b>(2<i>S,3S</i>)-1-Chloro-<i>N</i><sup>3</sup>,<i>N</i><sup>3</sup>-dibenzyl-5-methyl-<i>N</i><sup>2</sup>-tosylhexane-2,3-diamine (15b)</b>	<b>S18</b>
<b>(2<i>S,3S</i>)-1-Chloro-<i>N</i><sup>3</sup>,<i>N</i><sup>3</sup>-dibenzyl-4-phenyl-<i>N</i><sup>2</sup>-tosylbutane-2,3-diamine (15c)</b>	<b>S19</b>

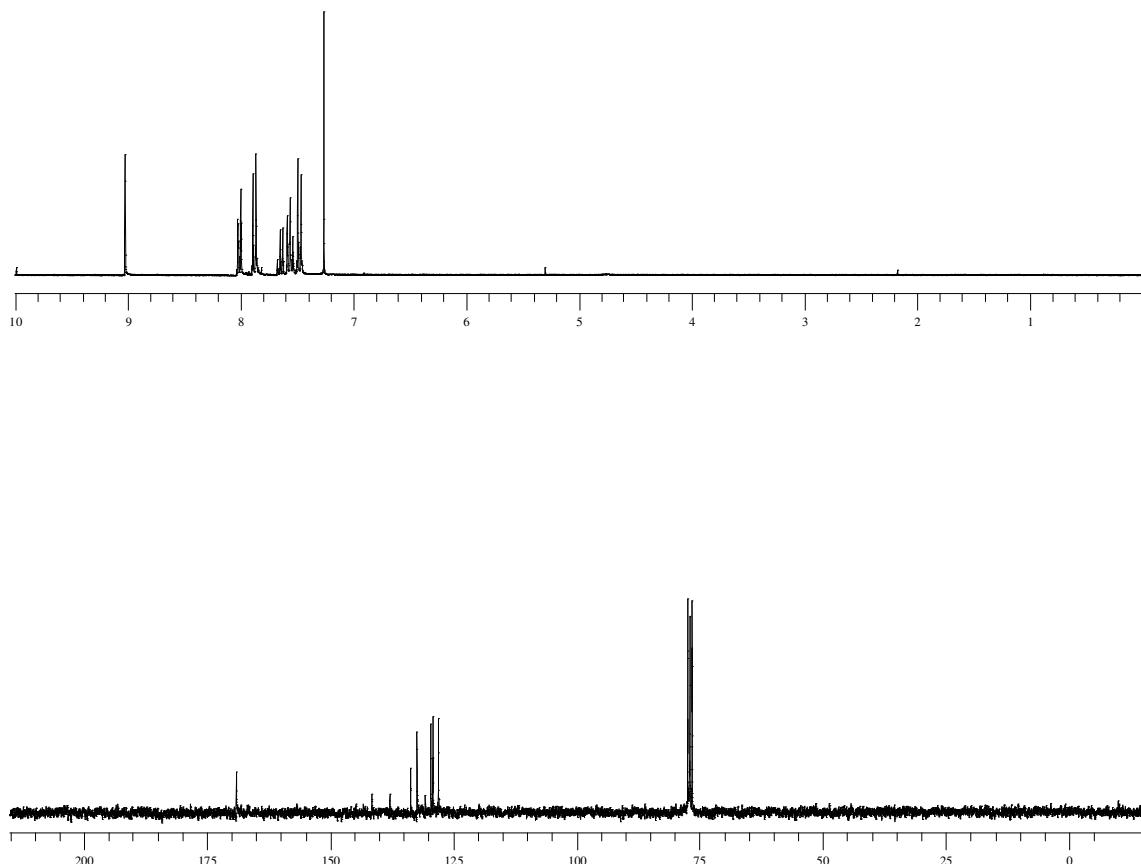
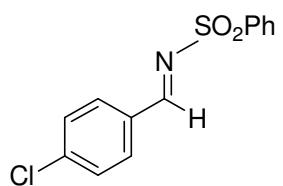
**General.** Reactions requiring an inert atmosphere were conducted under dry nitrogen, and the glassware was oven dried (120°C). THF was distilled from sodium/benzophenone ketyl immediately prior to use. All reagents were purchased in the highest quality available and were used without further purification.  $^1\text{H}$  NMR spectra were recorded at 300 or 400 MHz.  $^{13}\text{C}$  NMR spectra and DEPT experiments were recorded at 75 or 100 MHz. GC-MS and HRMS were measured at 70 eV and also using an ESI-TOF spectrometer.

Compounds **2a-e**, **3a**, **3c-d**, **11c**, **12**, and **13** displayed analytical data in accordance with the published values (see reference 24).

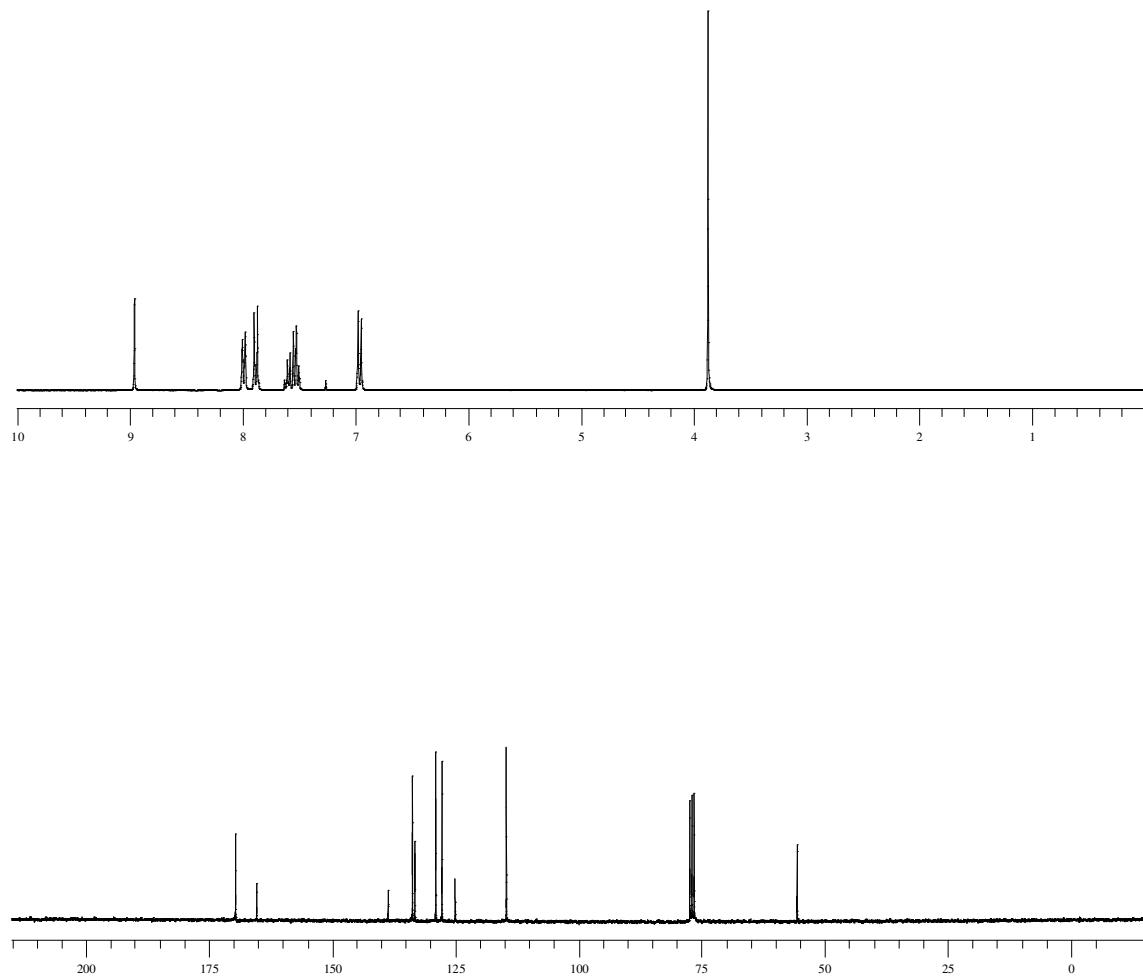
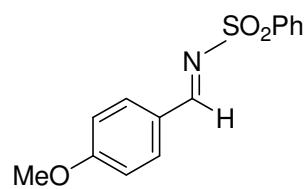
### **Cyclohexyl-*N*-phenylsulfonyl-methanimine (**1f**)**



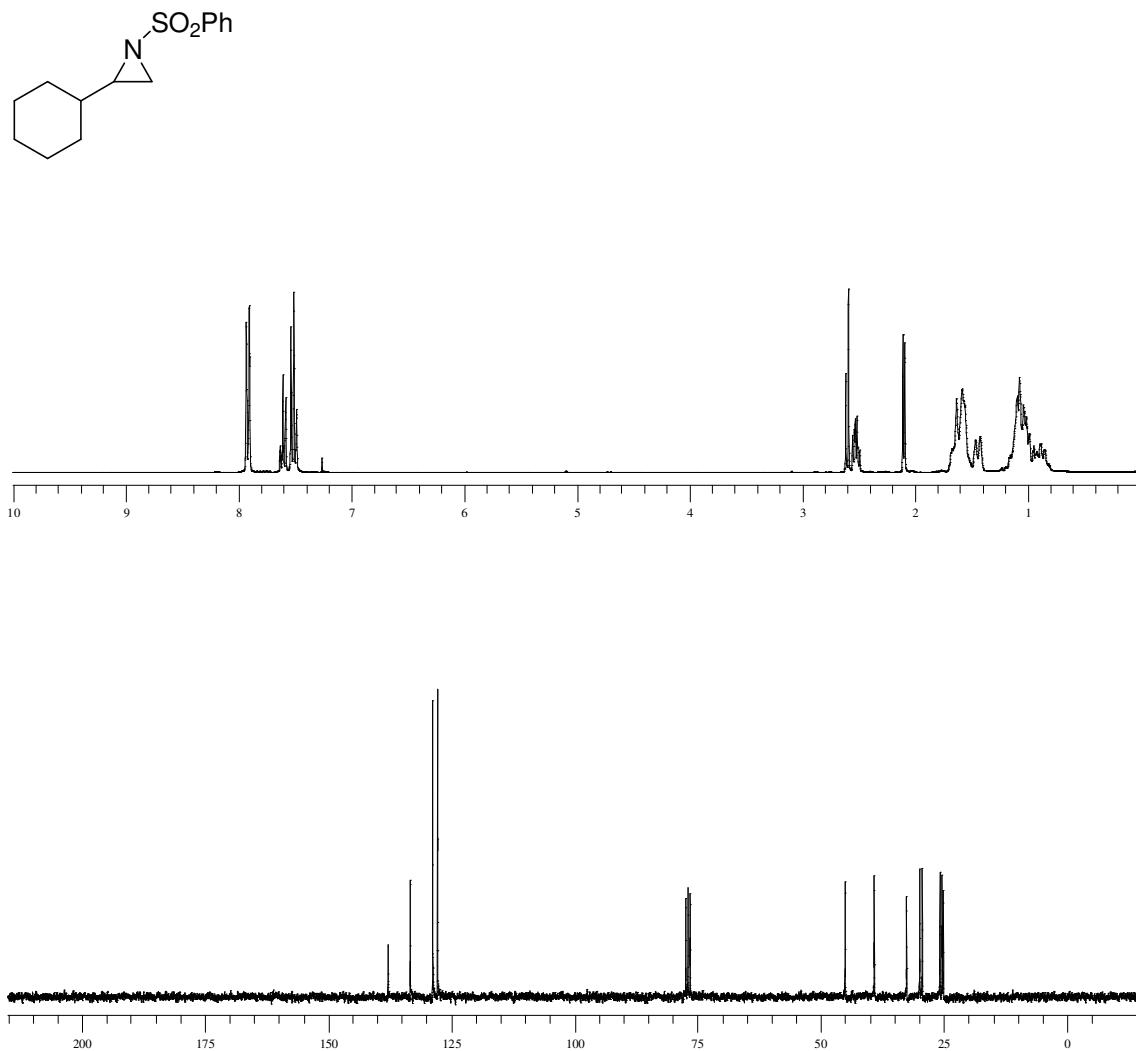
**(4-Chlorophenyl)-*N*-phenylsulfonyl-methanimine (1g)**



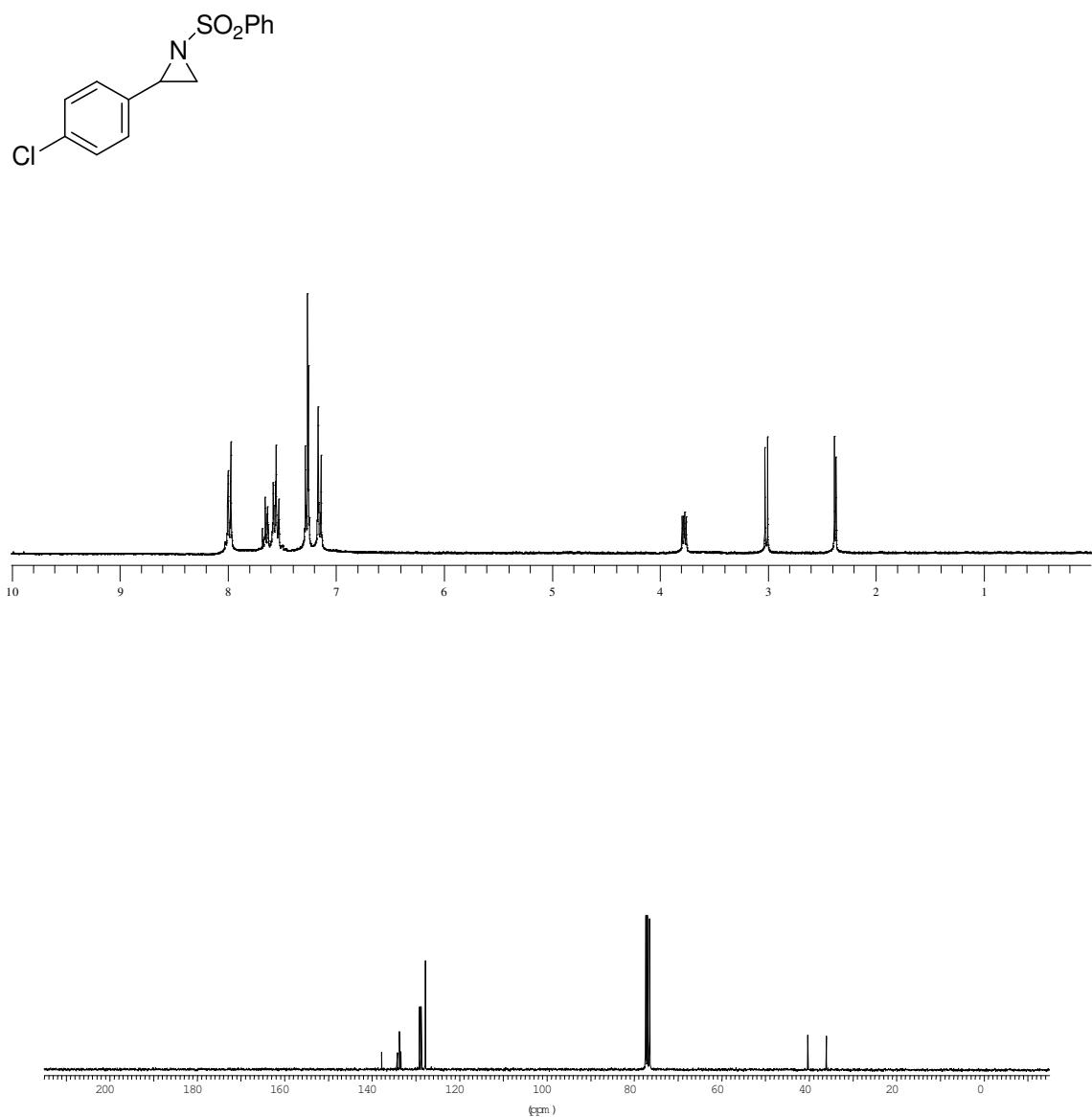
**(4-Methoxyphenyl)-N-phenylsulfonyl-methanimine (1h)**



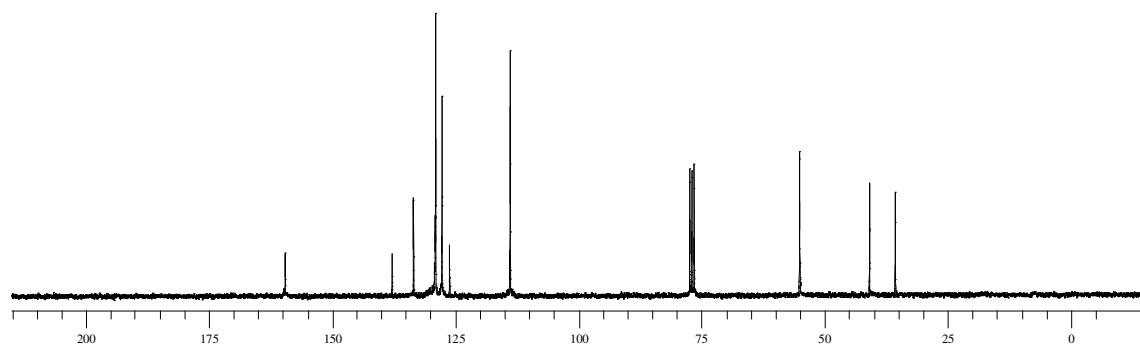
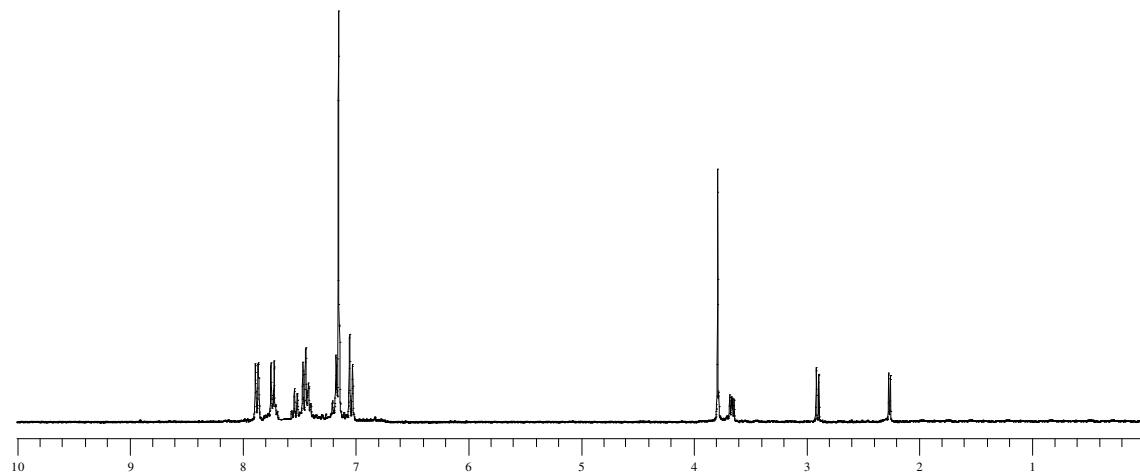
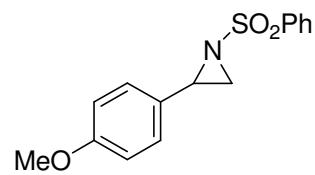
**2-Cyclohexyl-1-phenylsulfonylaziridine (2f)**



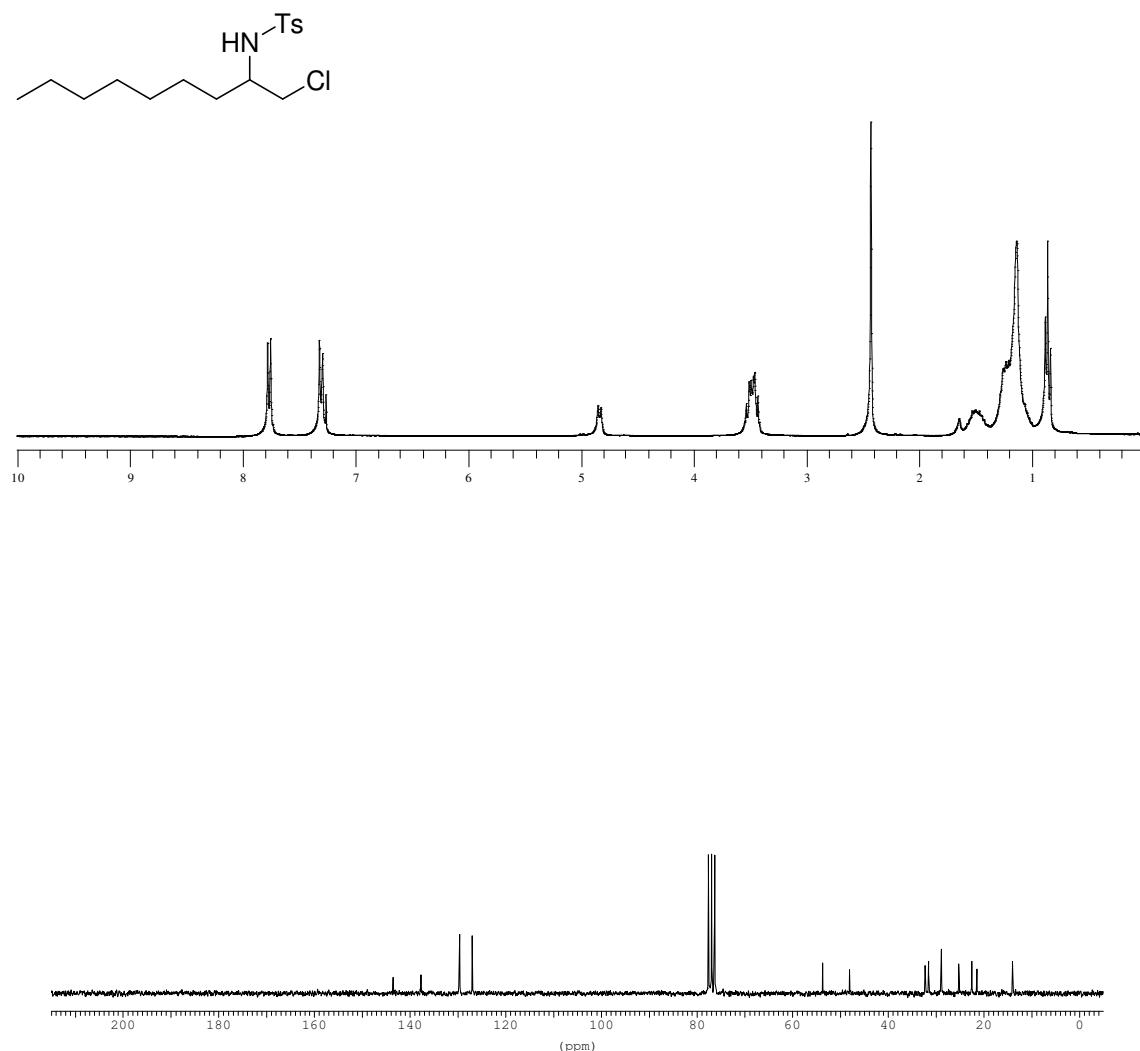
**2-(4-Chlorophenyl)-1-phenylsulfonylaziridine (2g)**



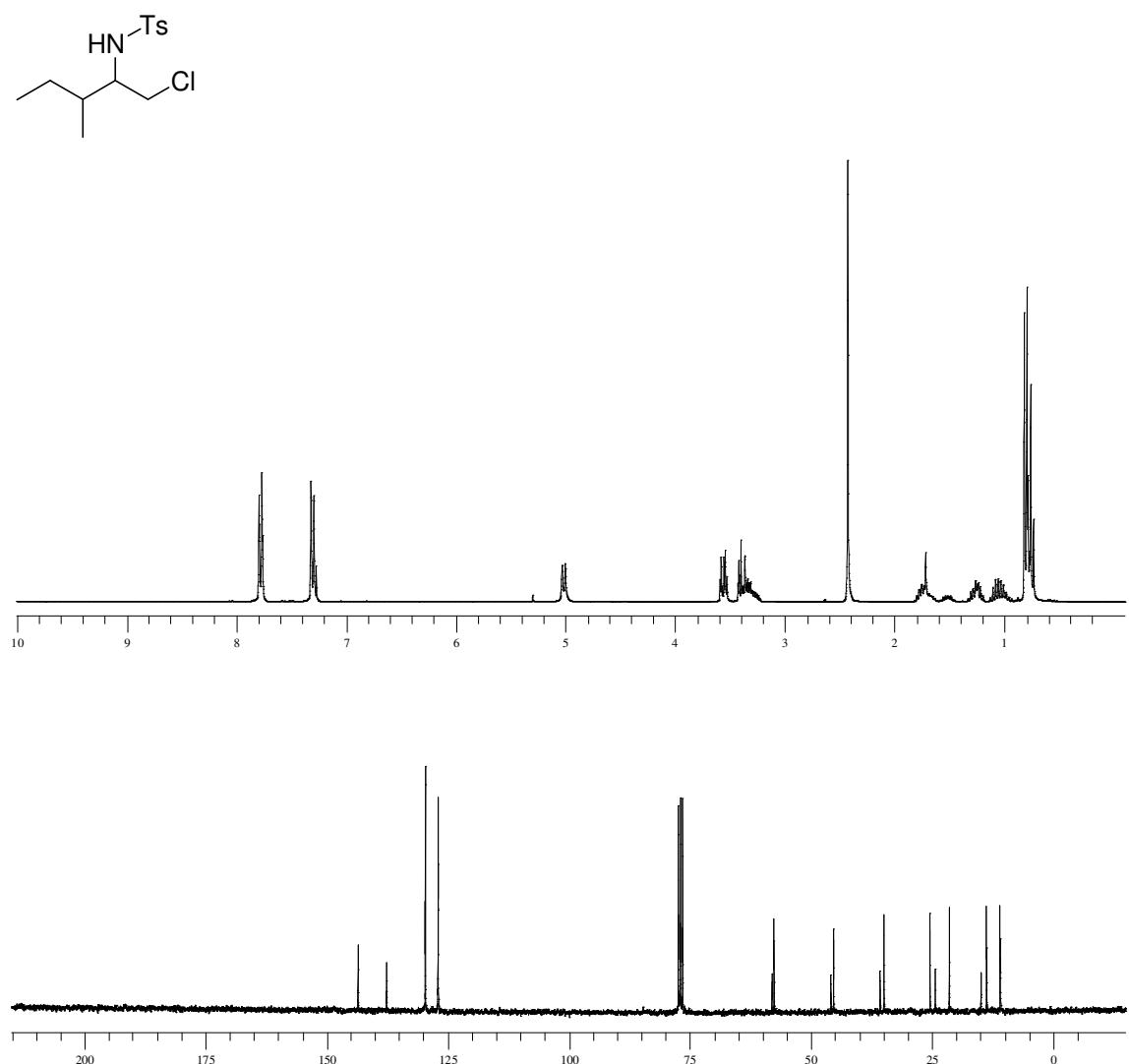
**2-(4-Methoxyphenyl)-1-phenylsulfonylaziridine (2h)**



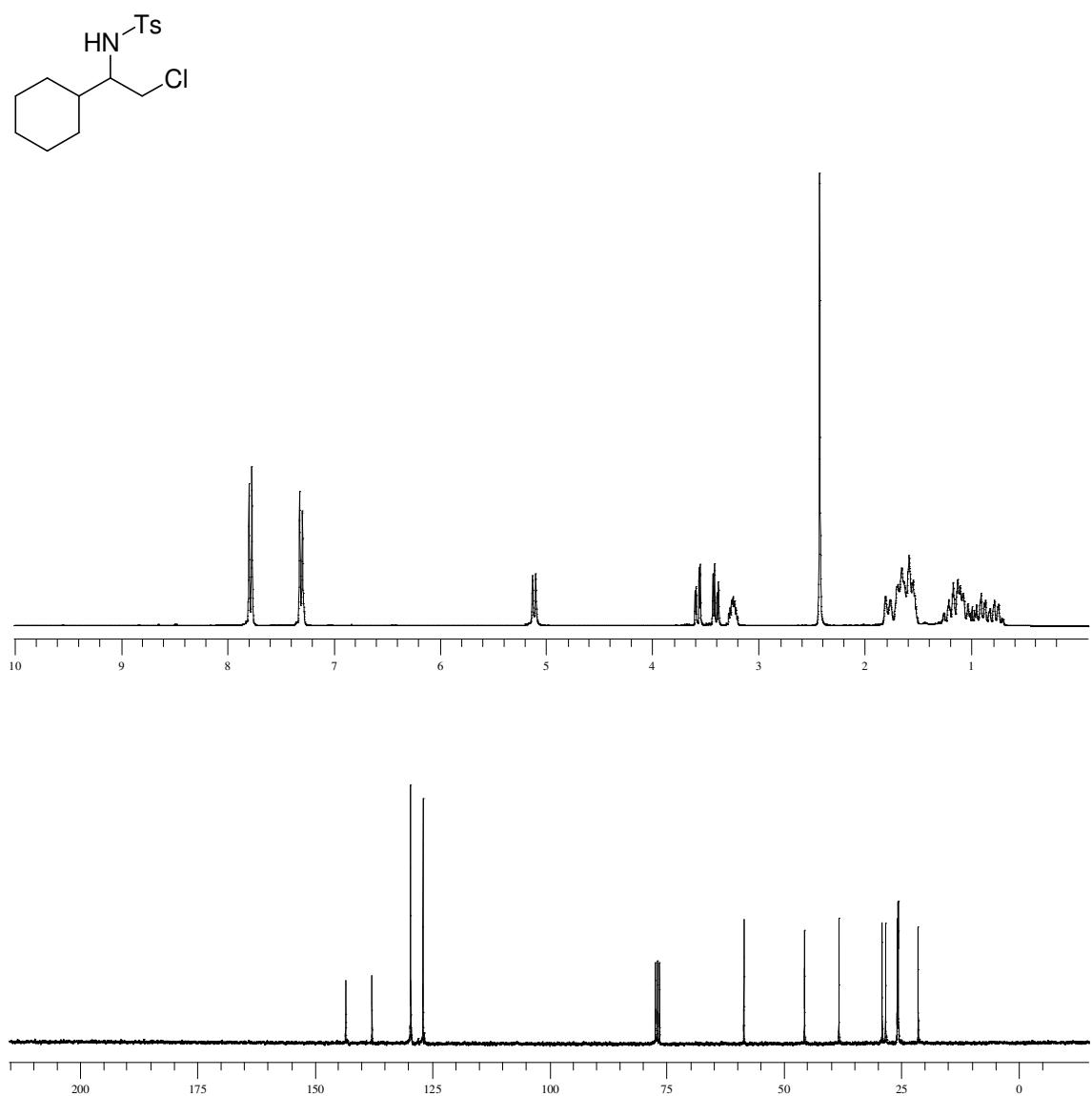
**1-Chloro-N-tosylnonan-2-amine (4a)**



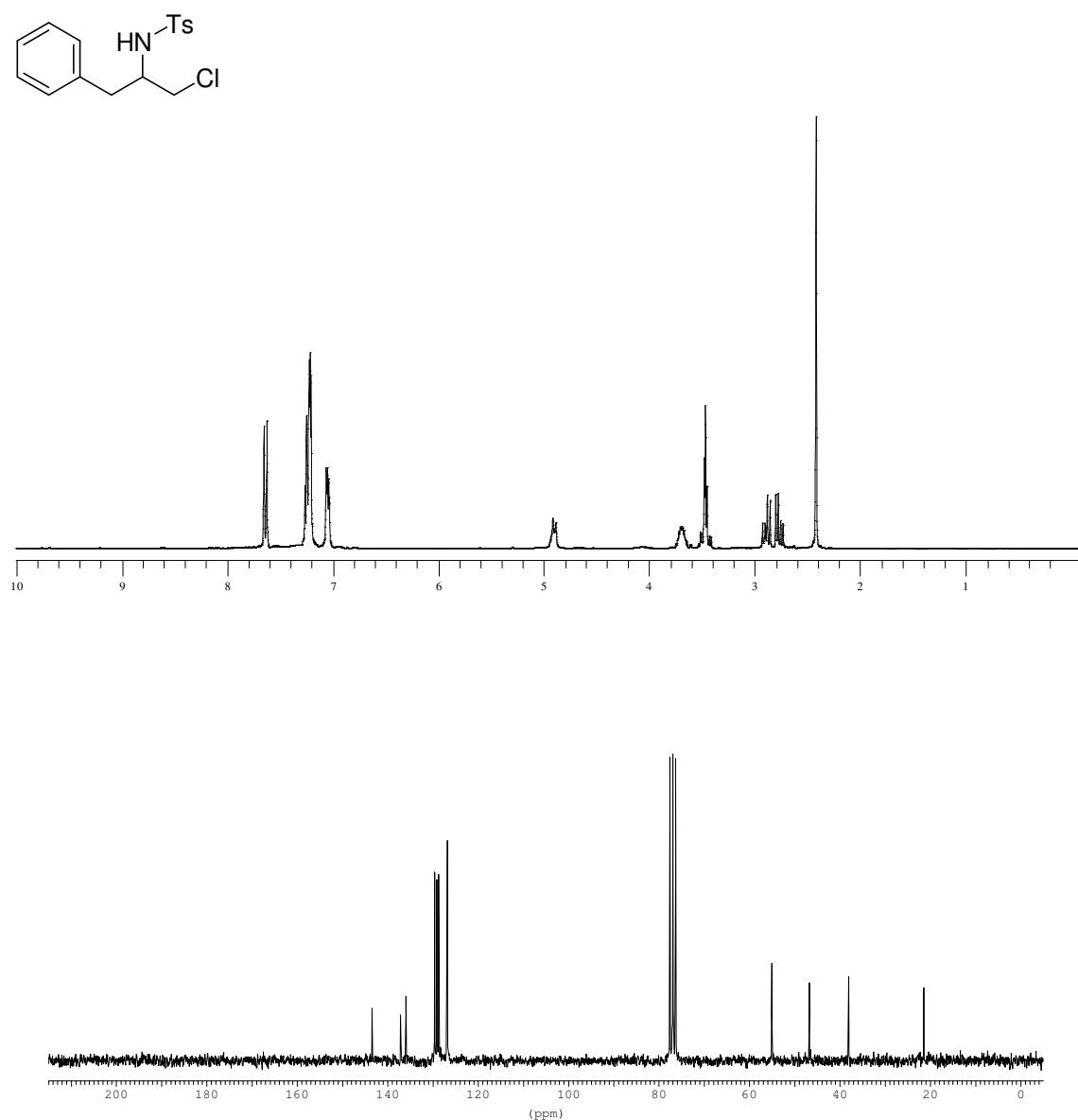
**1-Chloro-3-methyl-N-tosylpentan-2-amine (4b)**



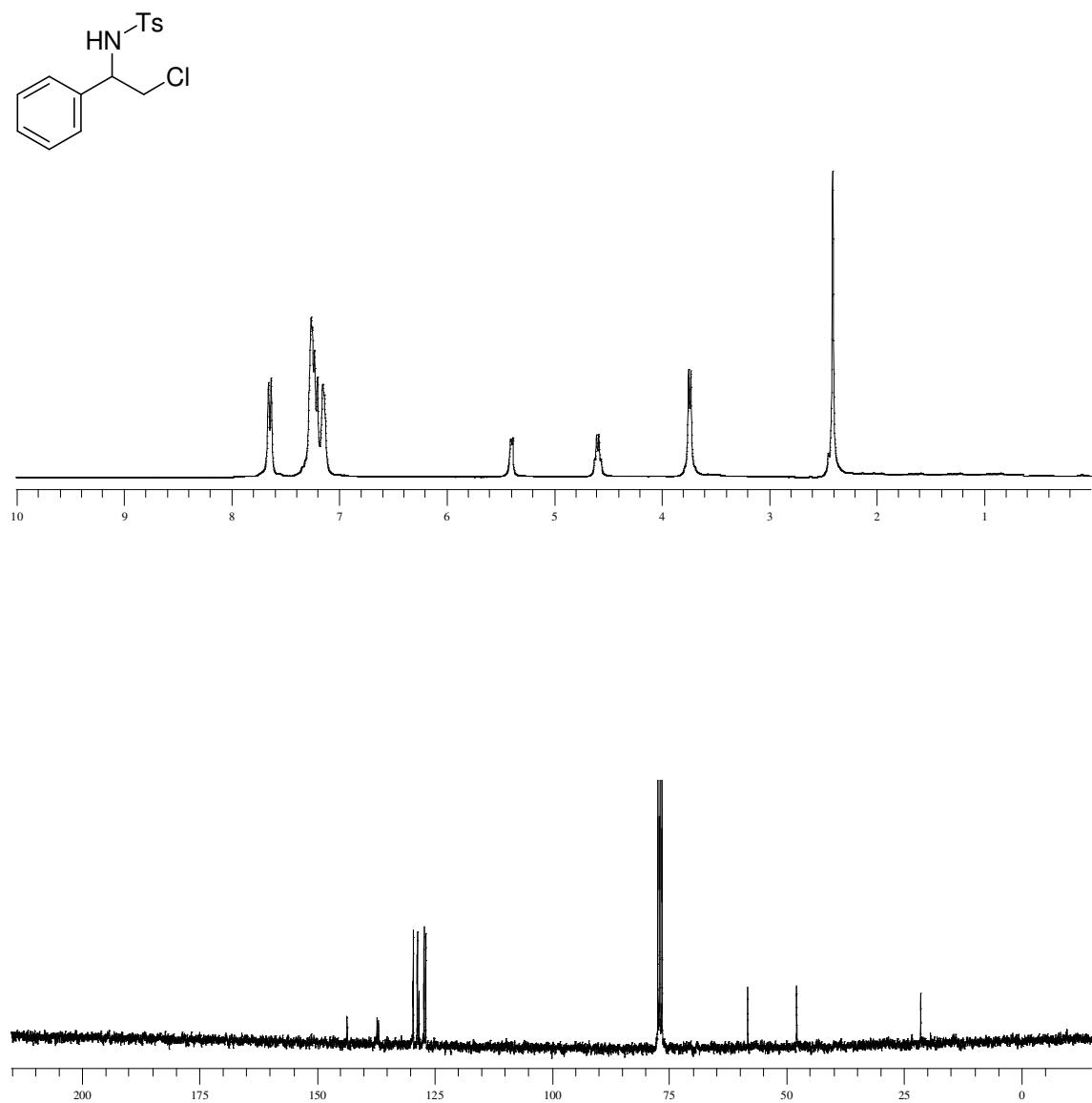
**2-Chloro-1-cyclohexyl-N-tosylethanamine (4c)**



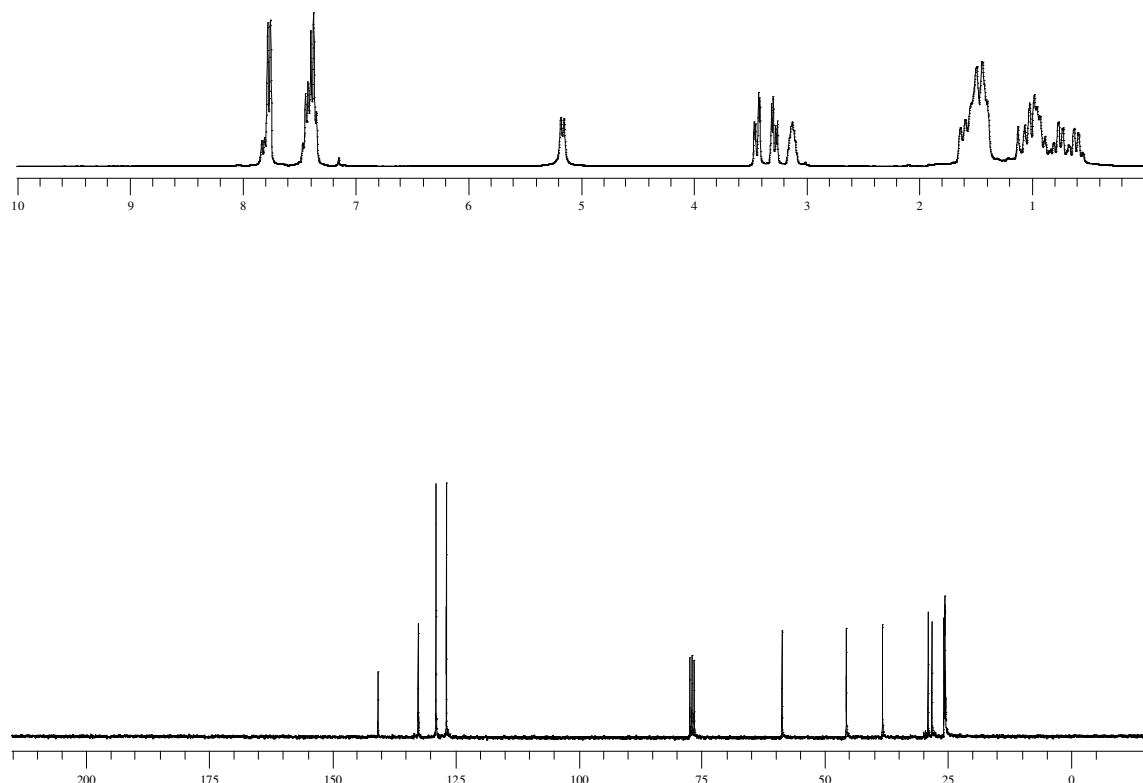
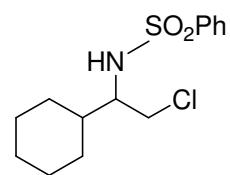
**1-Chloro-3-phenyl-N-tosylpropan-2-amine (4d)**



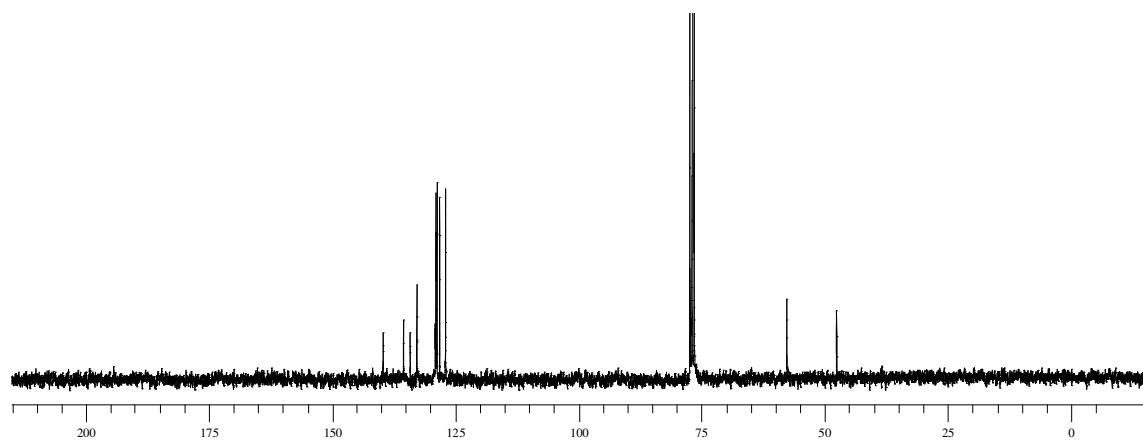
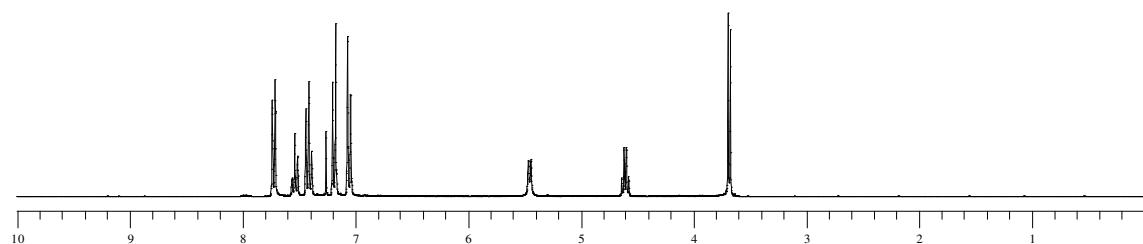
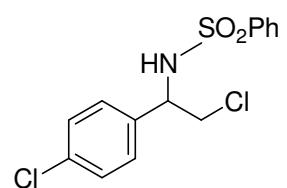
**2-Chloro-1-phenyl-N-tosylethanamine (4e)**



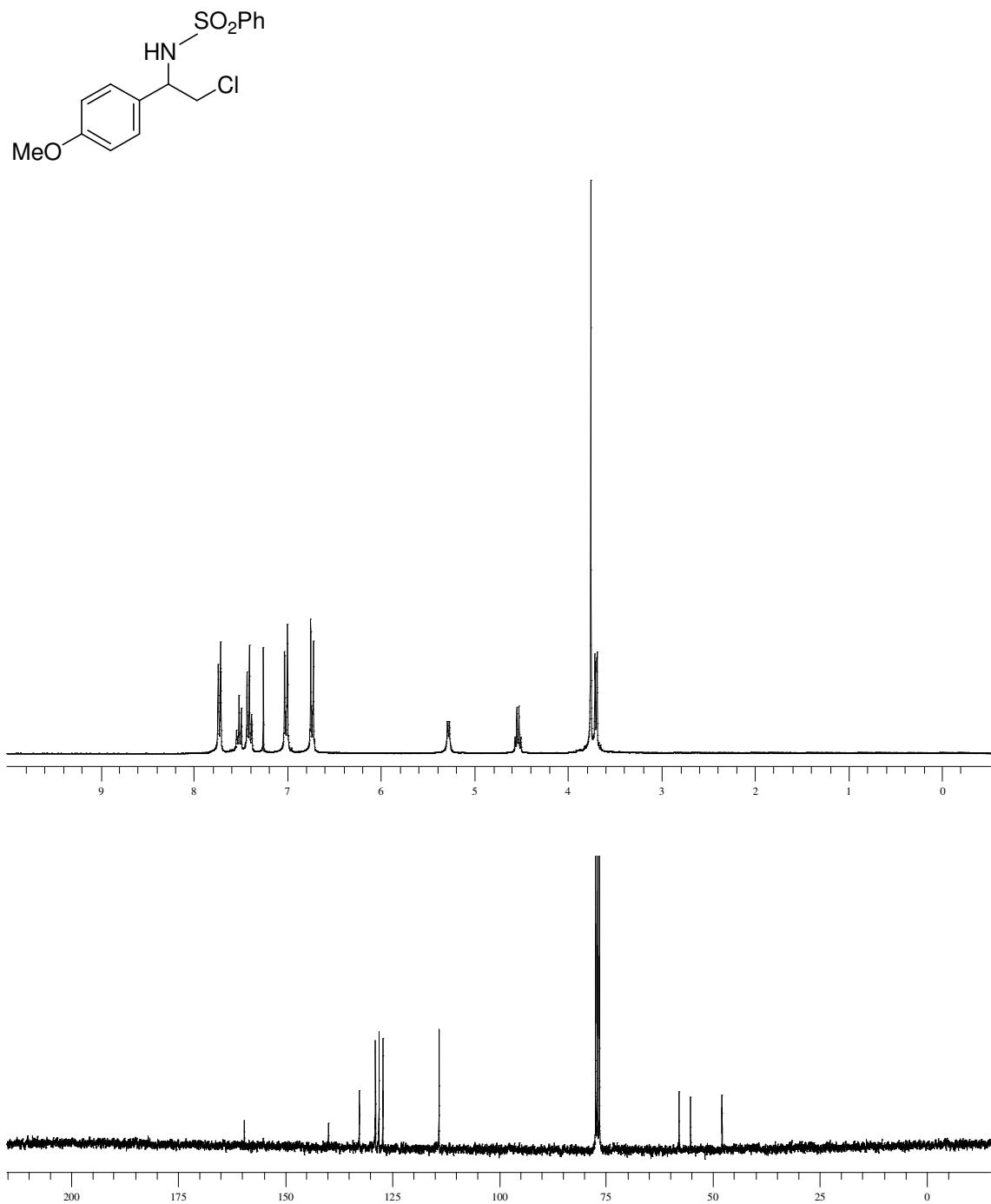
**2-Chloro-1-cyclohexyl-N-sulfonylphenylethanamine (4f)**



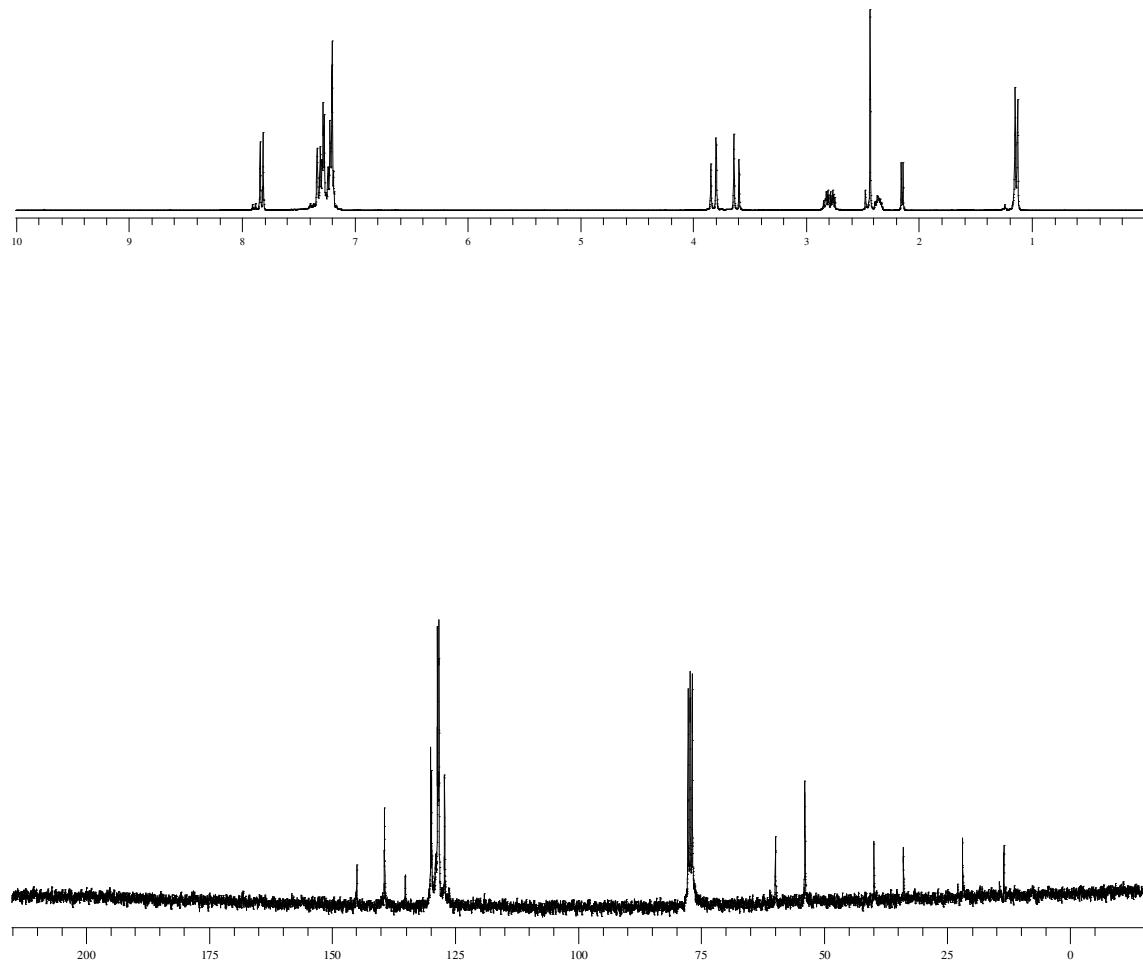
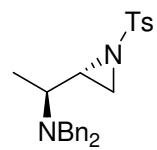
**2-Chloro-1-(4-chlorophenyl)-N-sulfonylphenylethanamine (4g)**



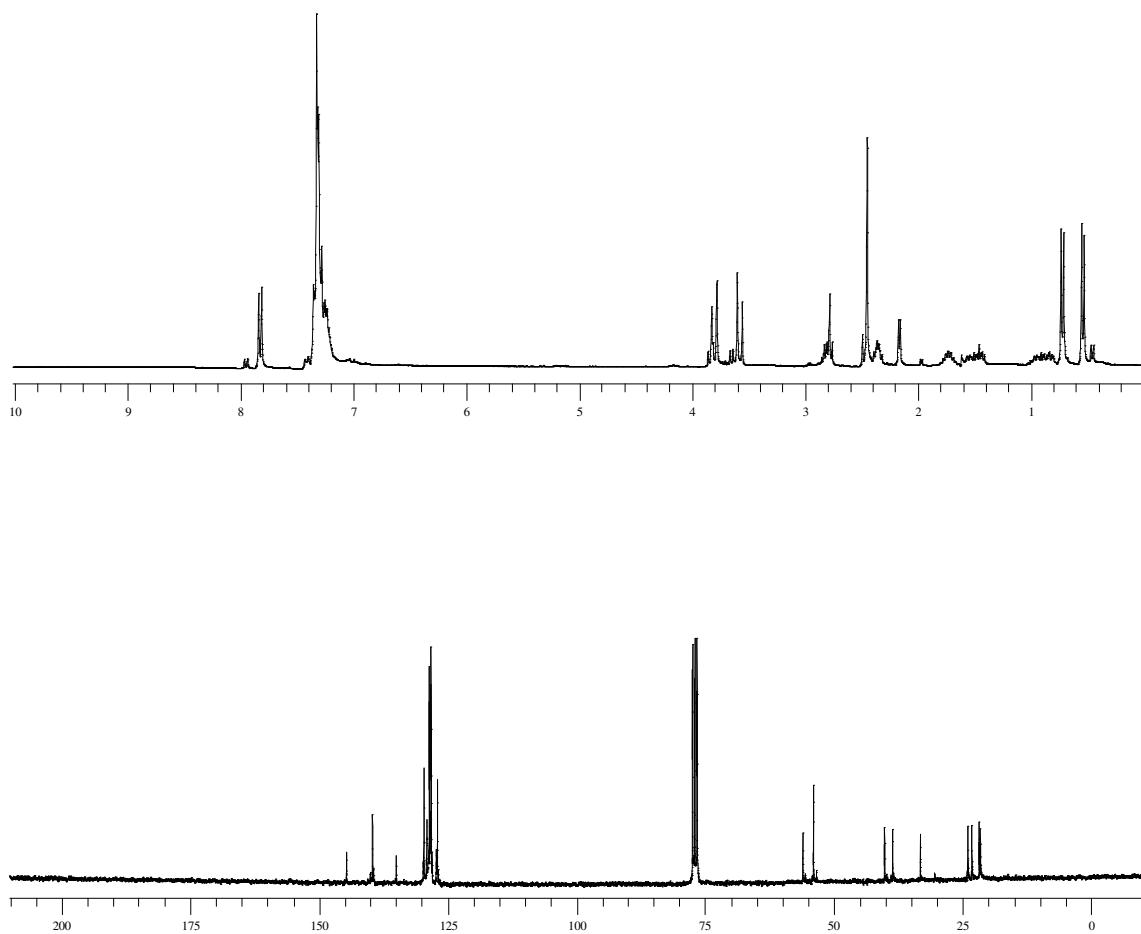
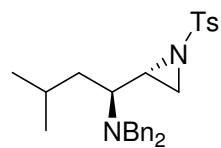
**2-Chloro-1-(4-methoxyphenyl)-N-sulfonylphenylethanamine (4h)**



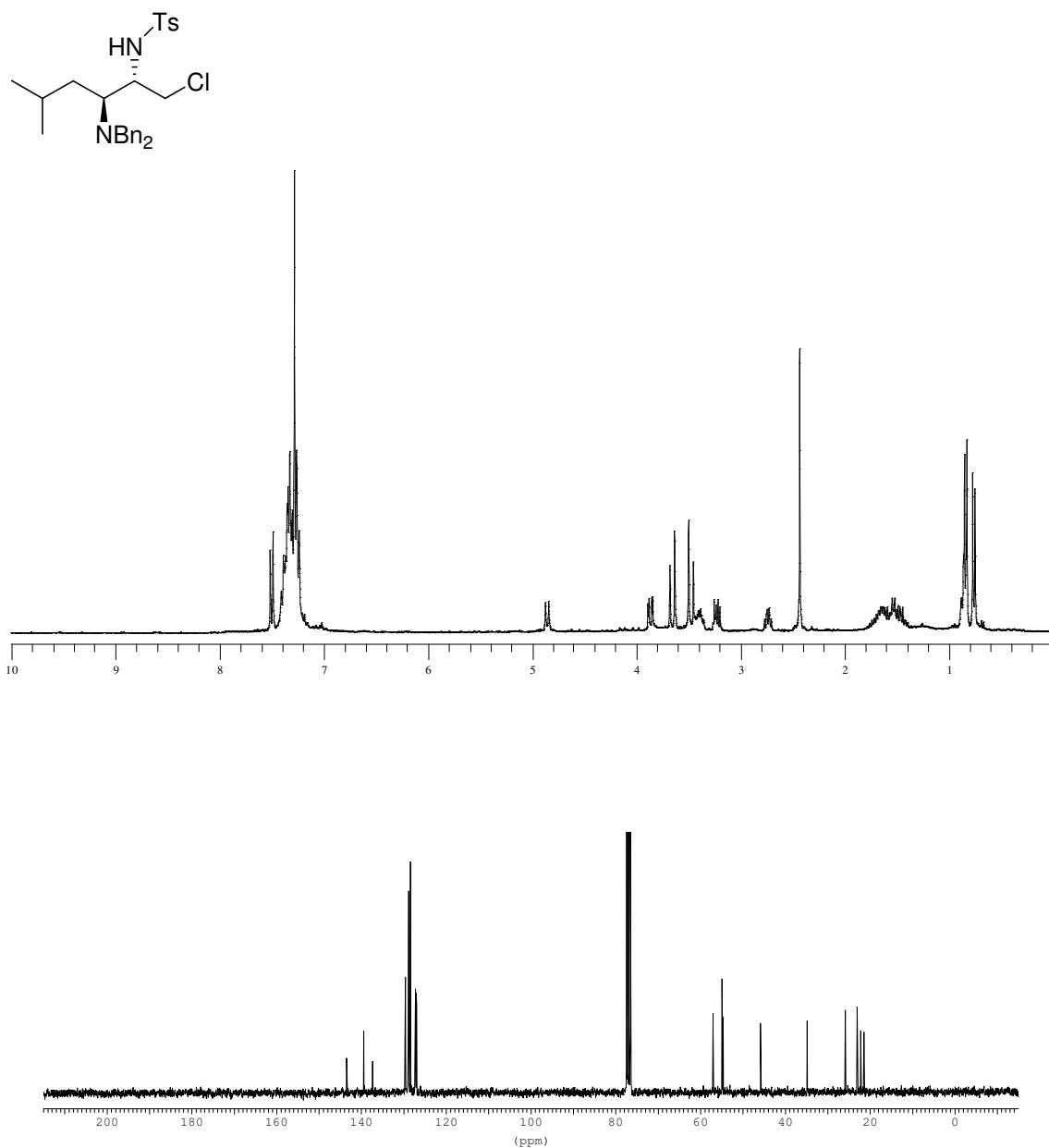
**(2*S*,1*R*)-1-Tosyl-2-[1'-(dibenzylamino)ethyl]aziridine (11a)**



**(2*R*,1*S*)-1-Tosyl-2-[1'-(dibenzylamino)-3'-(methyl)butyl]aziridine (11b)**



**(2S,3S)-1-Chloro-N<sup>3</sup>,N<sup>3</sup>-dibenzyl-5-methyl-N<sup>2</sup>-tosylhexane-2,3-diamine (15b)**



**(2*S*,3*S*)-1-Chloro-*N*<sup>3</sup>,*N*<sup>3</sup>-dibenzyl-4-phenyl-*N*<sup>2</sup>-tosylbutane-2,3-diamine (15c)**

