

Regio- and Stereoselective C-2 and C-3 Cleavage of 2-(1-Aminoalkyl)aziridines with Alcohols, Carboxylic Acids and Sodium Iodide

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Supporting Information.

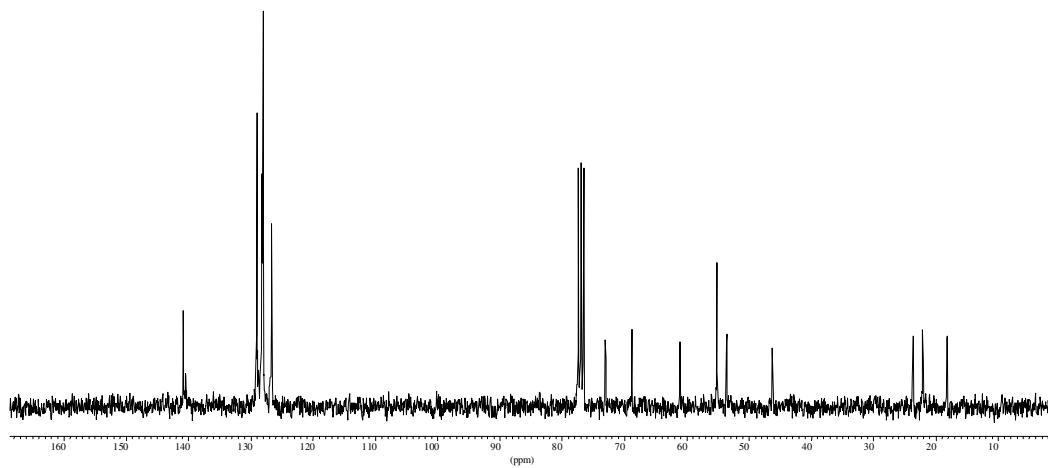
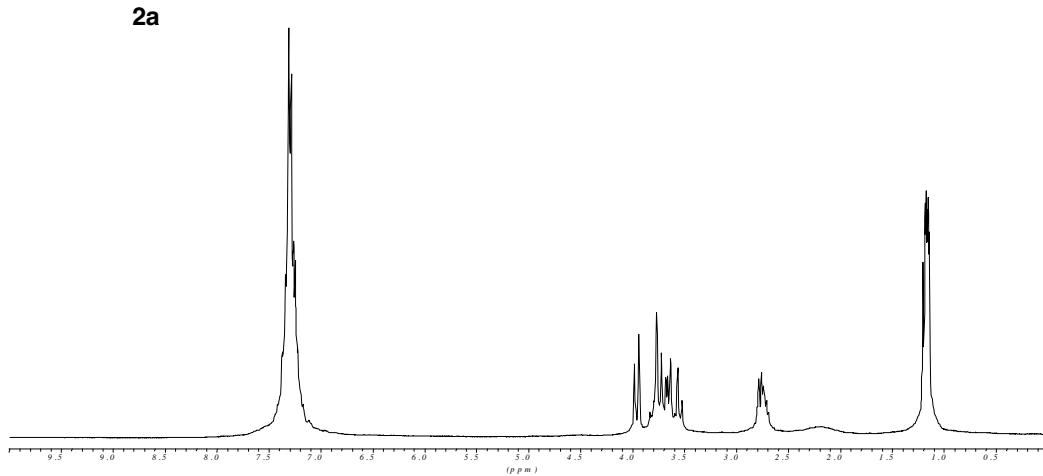
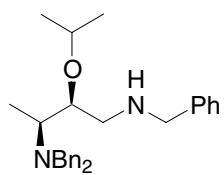
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|---|-----|
| General..... | S2 |
| (2S,3S)-<i>N¹,N³,N³-Tribenzyl-2-isopropoxybutan-1,3-diamine (2a)</i>..... | S3 |
| (2S,3S)-<i>N¹,N³,N³-Tribenzyl-2-methoxy-5-methylhexan-1,3-diamine (2b)</i>..... | S4 |
| (2S,3S)-<i>N¹,N³,N³-Tribenzyl-2-methoxy-4-phenylbutan-1,3-diamine (2c)</i>..... | S5 |
| (2S,3S)-<i>N¹,N³,N³-Tribenzyl-2-isopropoxy-4-phenylbutan-1,3-diamine (2d)</i>..... | S6 |
| (2S,3S)-<i>N¹-Cyclohexyl-N³,N³-dibenzyl-2-methoxy-4-phenylbutan-1,3-diamine (2e)</i>..... | S7 |
| (2S,3S)-<i>N²-Allyl-N³,N³-dibenzyl-1-tert-butoxy-5-methylhexan-2,3-diamine (5)</i>..... | S8 |
| (4S,5S)-<i>4-Benzyl-5-methoxymethyltetrahydropyrimidin-2-one (3c)</i>..... | S9 |
| (2R,3S)-<i>2-(Benzylamino)-3-(dibenzylamino)-4-phenylbutyl acetate (6a)</i>..... | S10 |
| (2R,3S)-<i>2-(Benzylamino)-3-(dibenzylamino)-4-methylhexyl acetate (6b)</i>..... | S11 |
| (2R,3S)-<i>2-(Benzylamino)-3-(dibenzylamino)-4-phenylbutyl 3-phenylpropane-1,2-dione (6c)</i>..... | S12 |

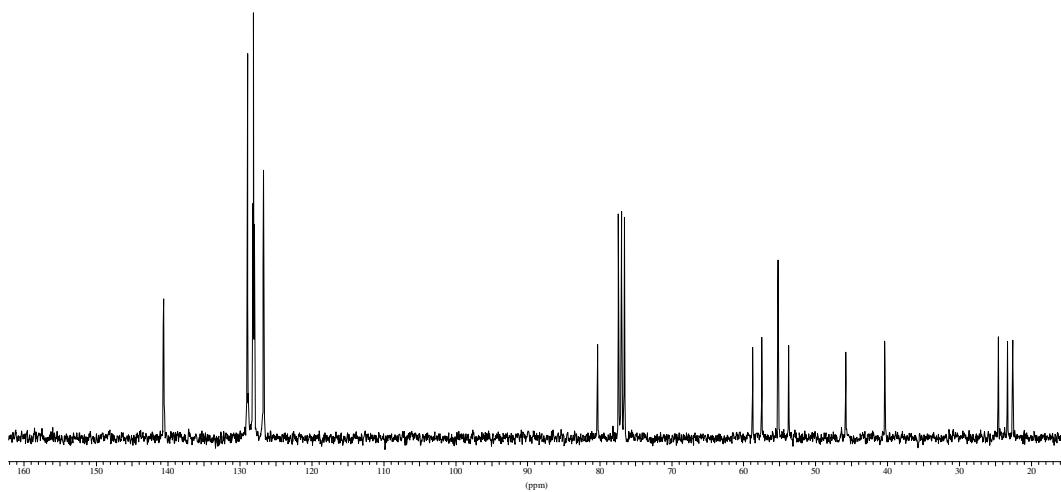
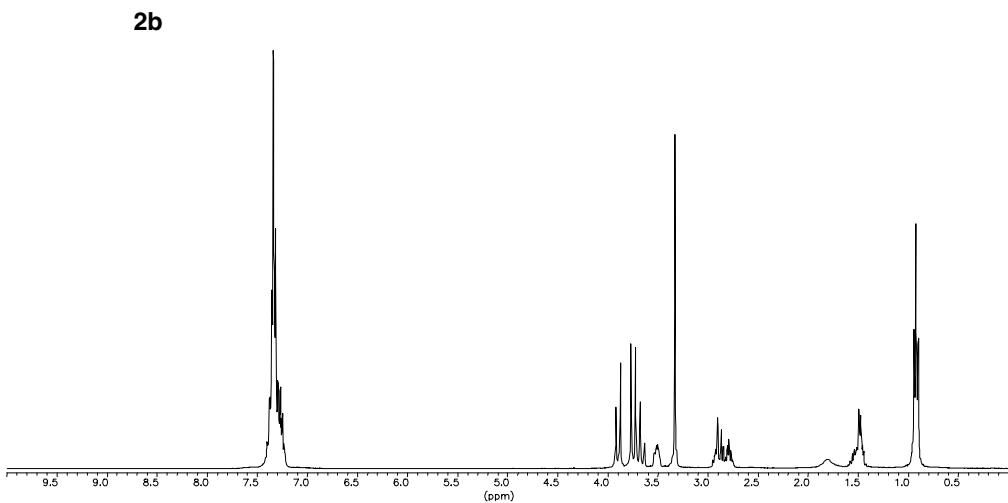
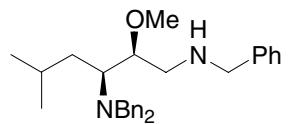
(2*R*,3*S*)-2-(Allylamino)-3-(dibenzylamino)-5-methylhexyl acetate (6d).....S13

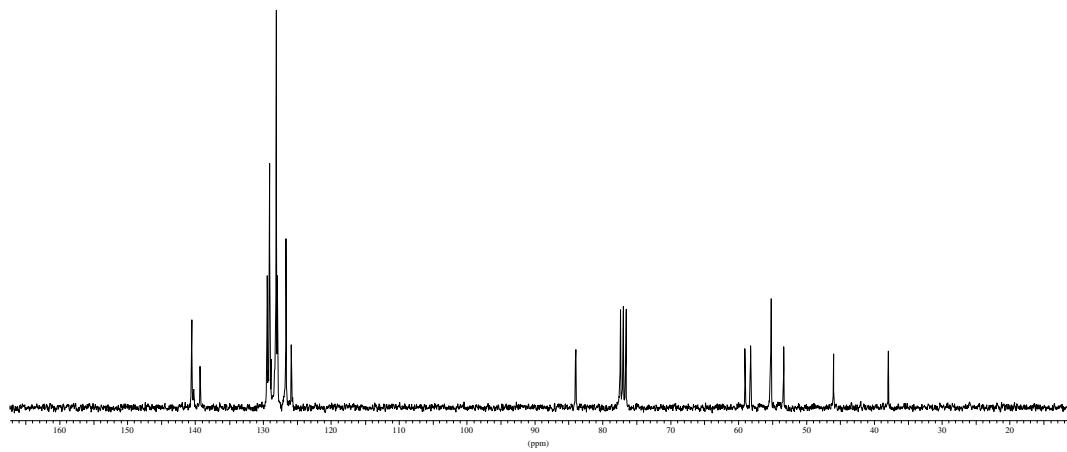
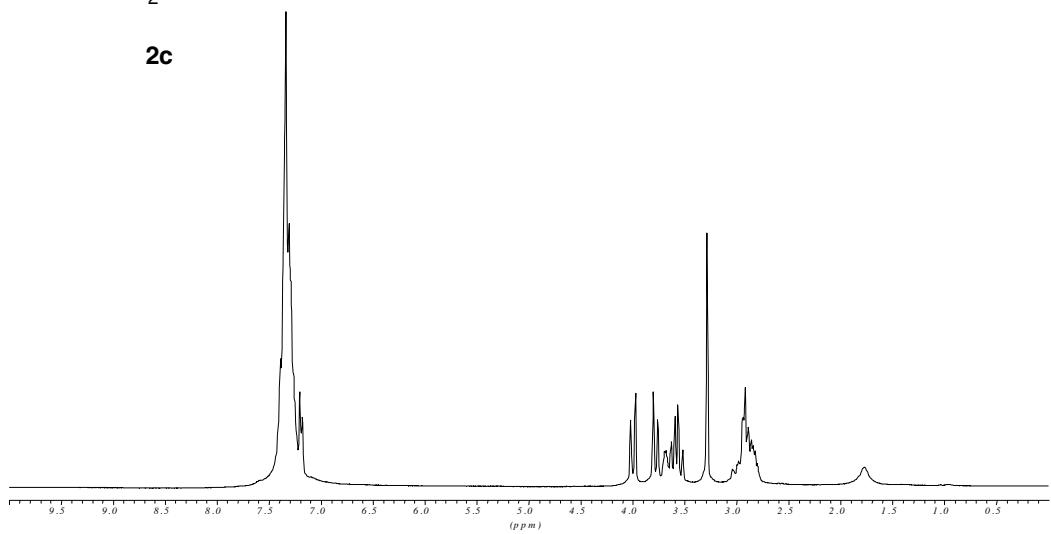
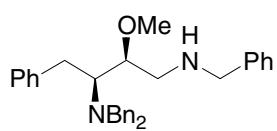
(2*R*)-(E)-*N*¹, *N*¹, *N*²-Tribenzyl-4-phenylbut-3-en-1,2-diamine (9a).....S14

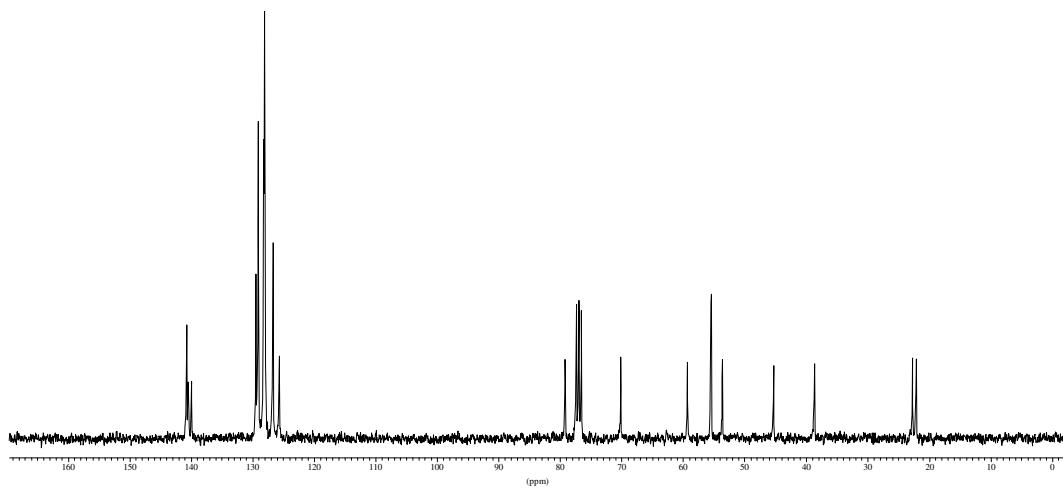
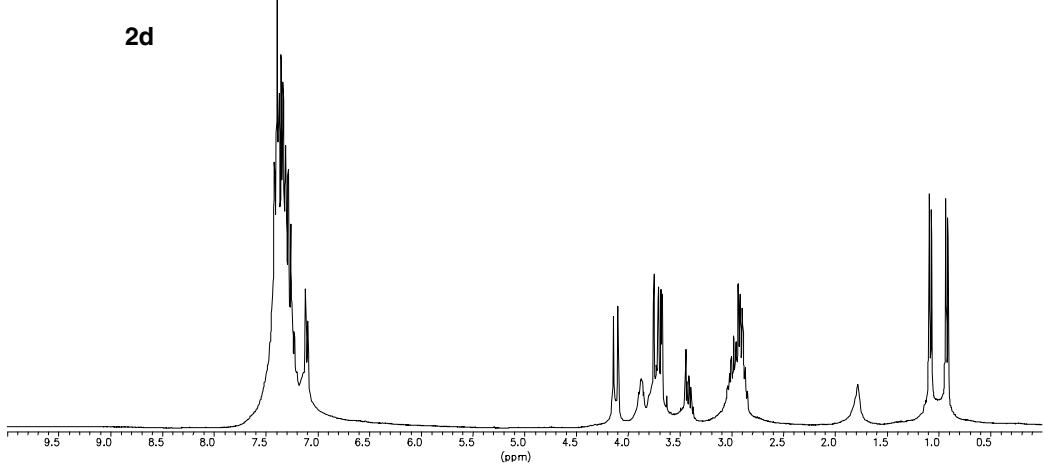
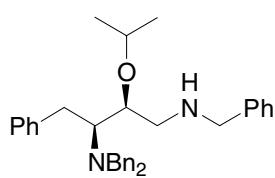
(2*R*)-(E)-*N*¹, *N*¹, -Dibenzyl-*N*²-cyclohexyl-4-phenylbut-3-en-1,2-diamine (9b).....S15

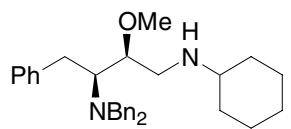
General: Reactions requiring an inert atmosphere were conducted under dry nitrogen, and the glassware was oven dried (120 °C). THF and ether were distilled from sodium/benzophenone ketyl immediately prior to use. All reagents were purchased in the higher quality available and were used without further purification. $\text{BF}_3\cdot\text{OEt}_2$ and acetonitrile were distilled from CaH_2 and stored over activated 4Å molecular sieves. ^1H NMR spectra were recorded at 300 or 400 MHz. ^{13}C NMR spectra and DEPT experiments were determined at 75 MHz. Chemical shifts are given in ppm relative to TMS, which is used as an internal standard, and coupling constants (*J*) are reported in Hz. HRMS were measured at 70 eV. Analytical TLC was conducted in precoated silica gel 60 F-254 on aluminum sheets; compounds were visualized with UV light or iodine. Flash chromatography was carried out on silica gel 60 (230-400 mesh).



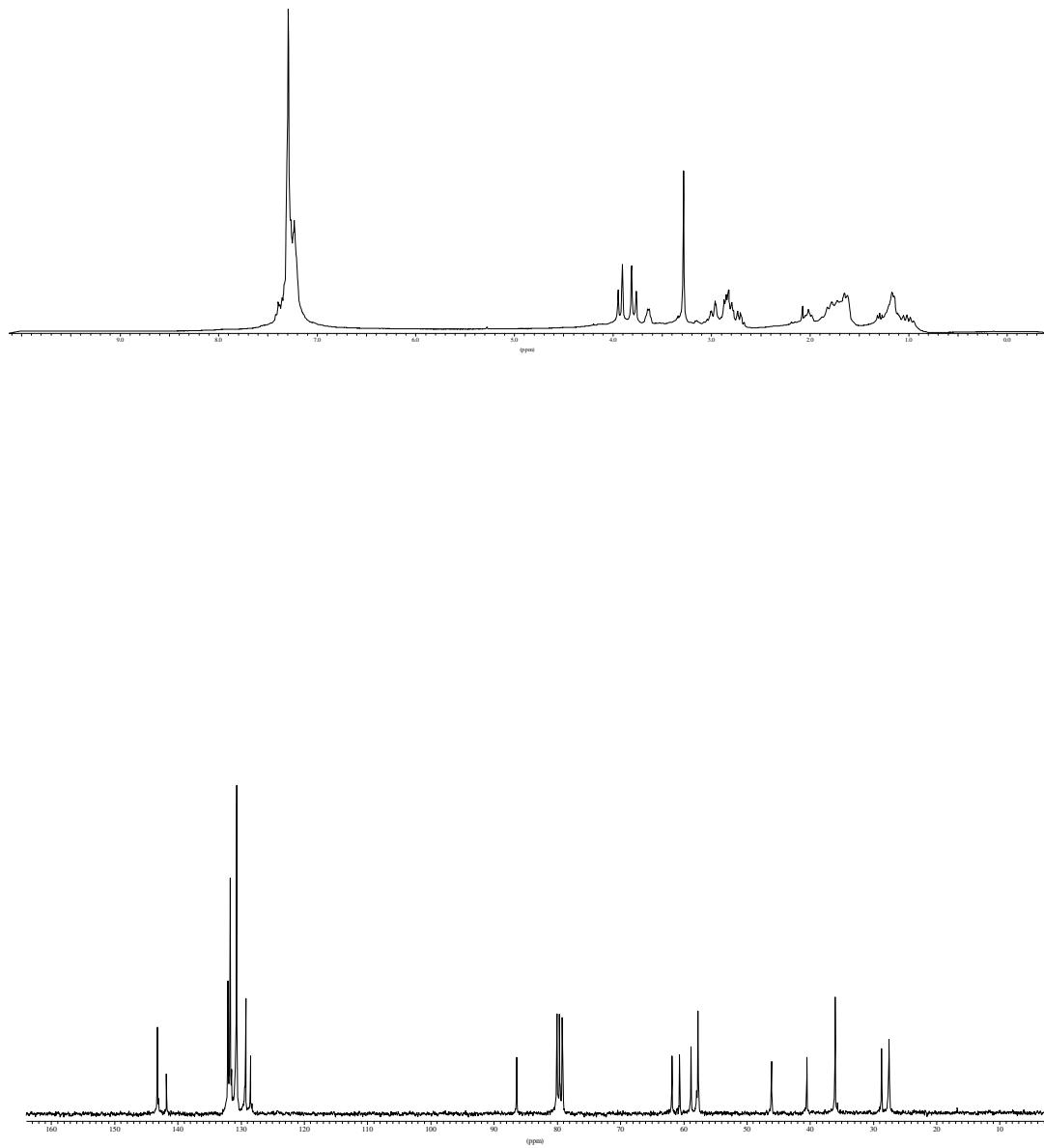


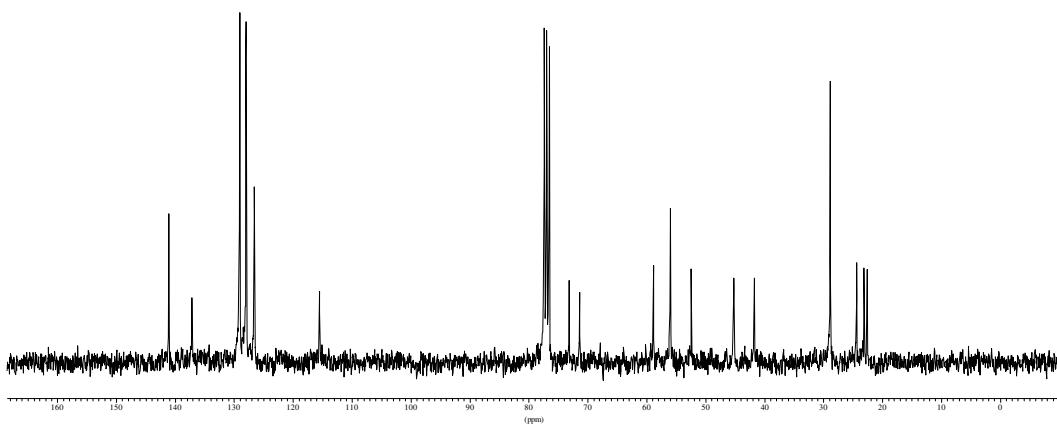
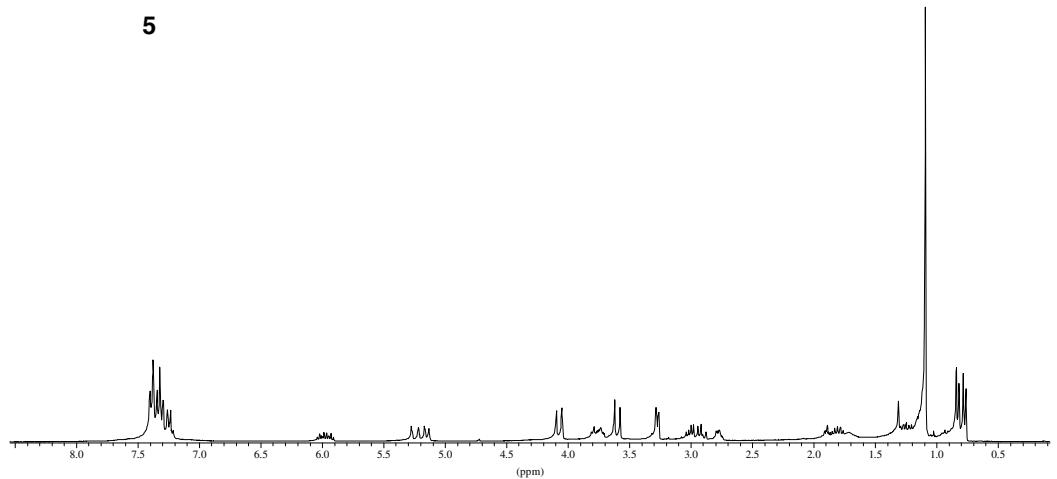
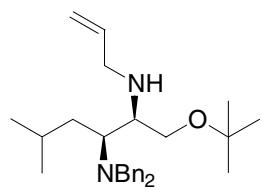


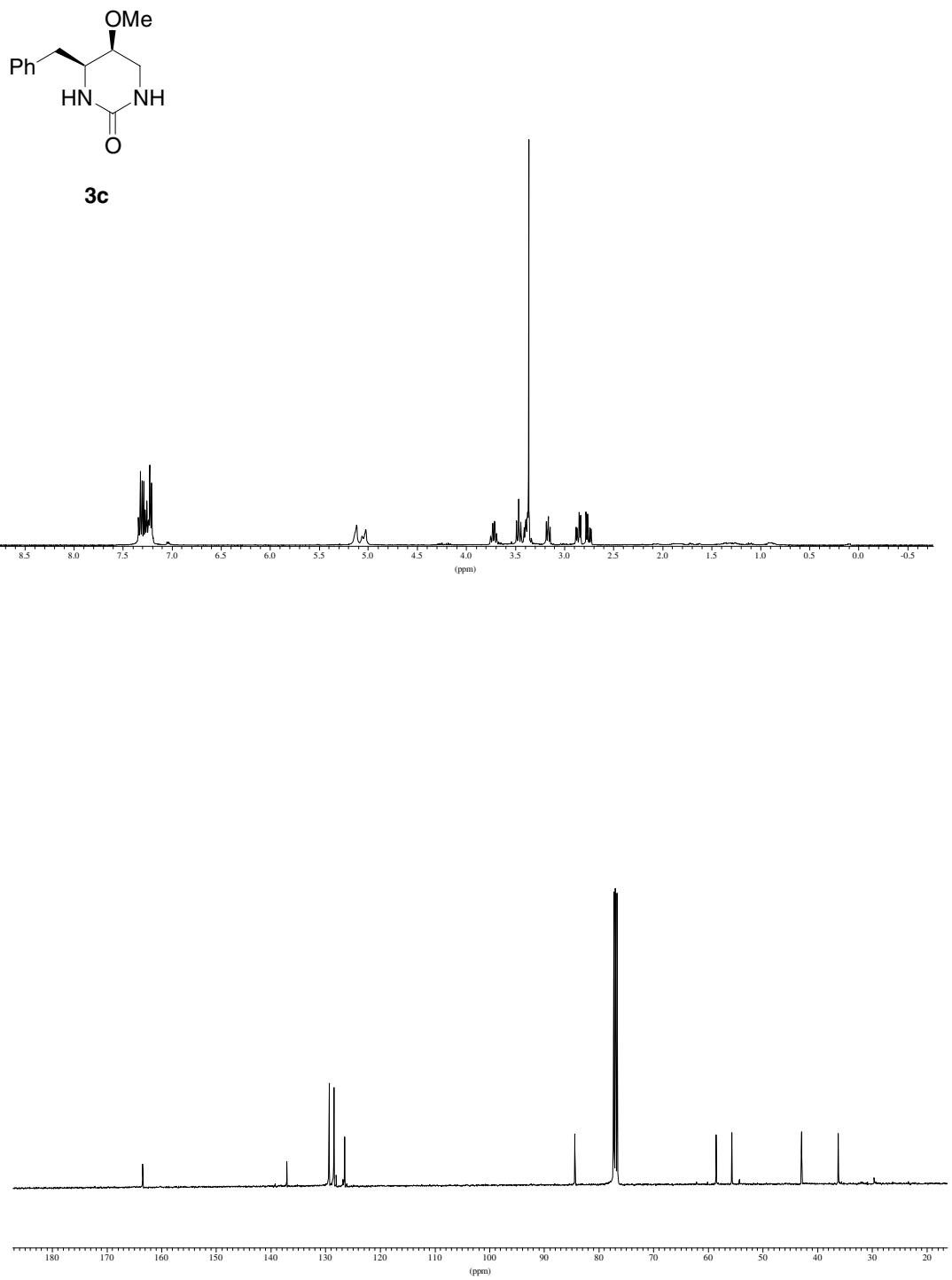


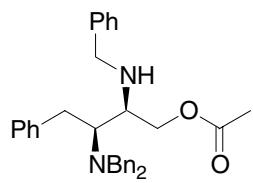


2e

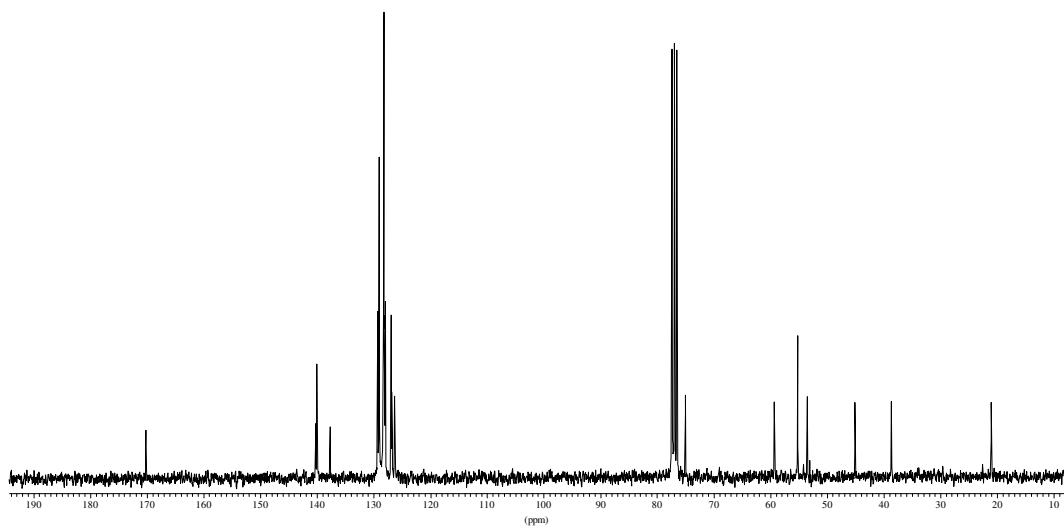
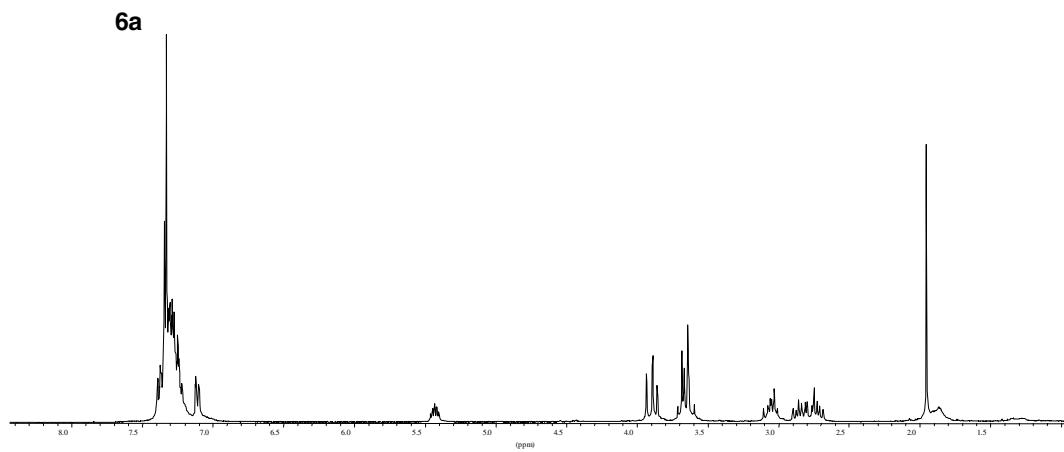


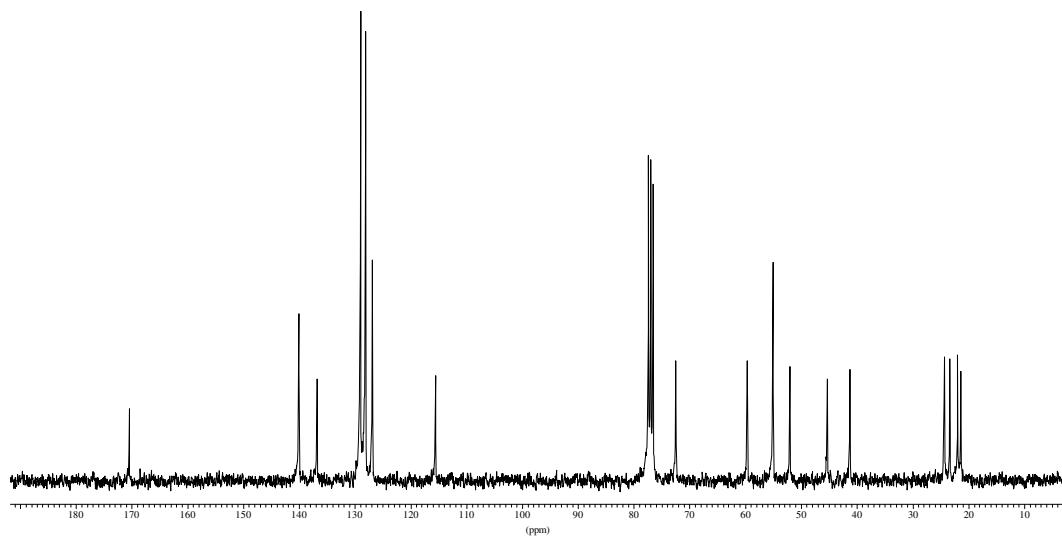
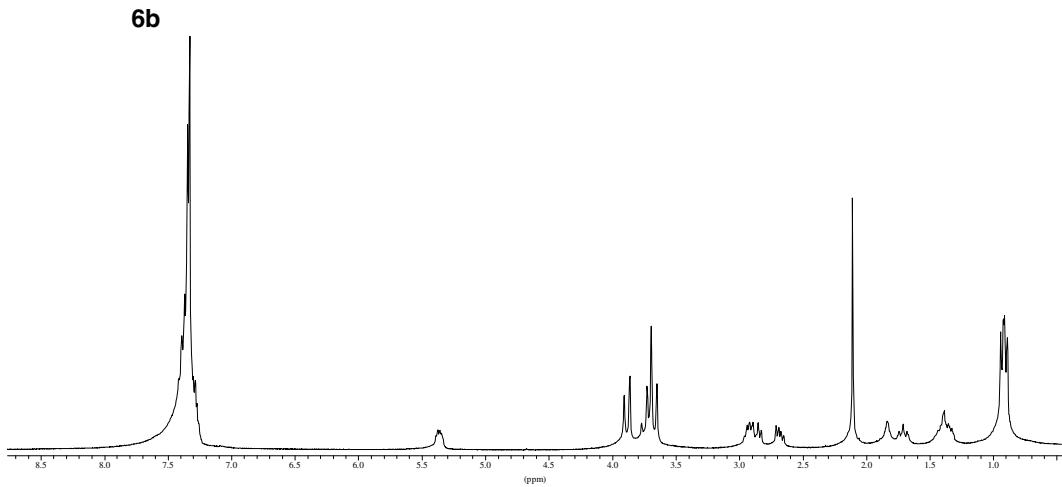
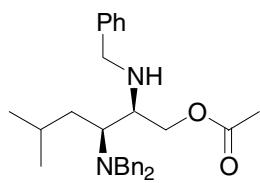


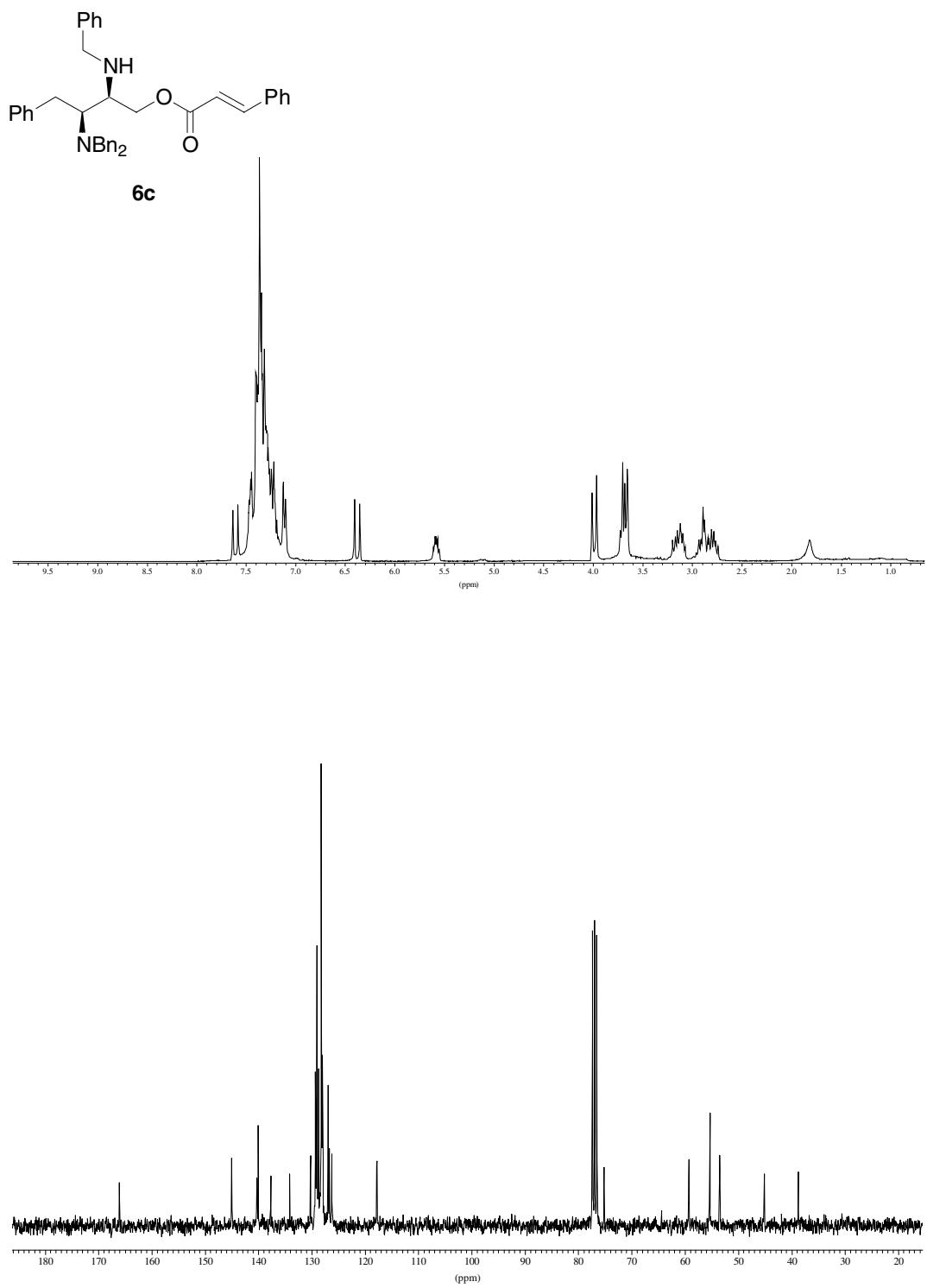


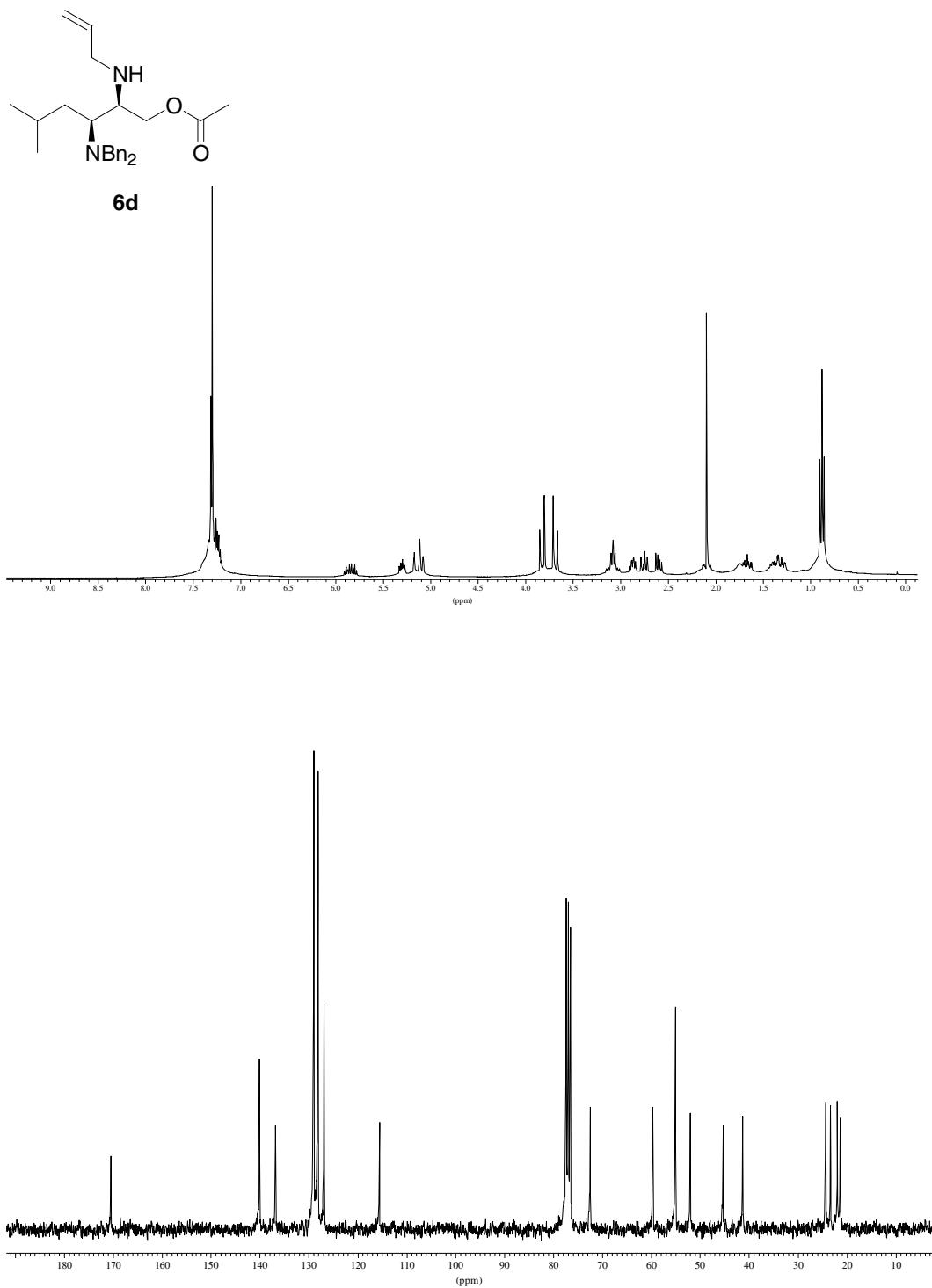


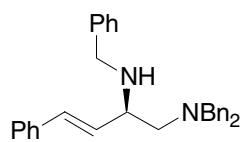
6a











9a

