Supporting Information

Pushing the limits of catalytic C-H amination in polyoxygenated cyclobutanes

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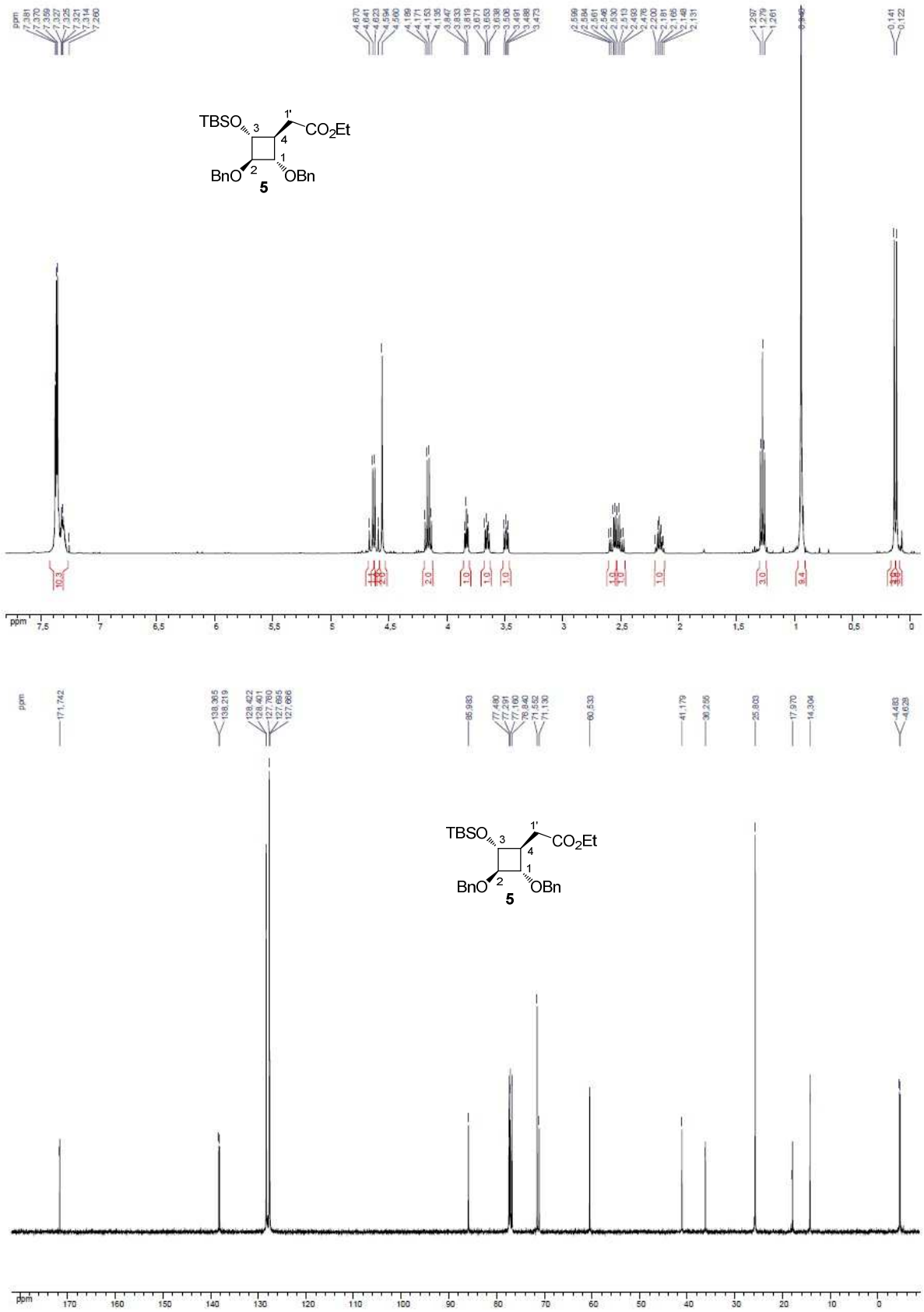

Fig 1. ^{1}H NMR (400 MHz, $CDCl_3$) and ^{13}C (100 MHz, $CDCl_3$) spectra of compound **5**.

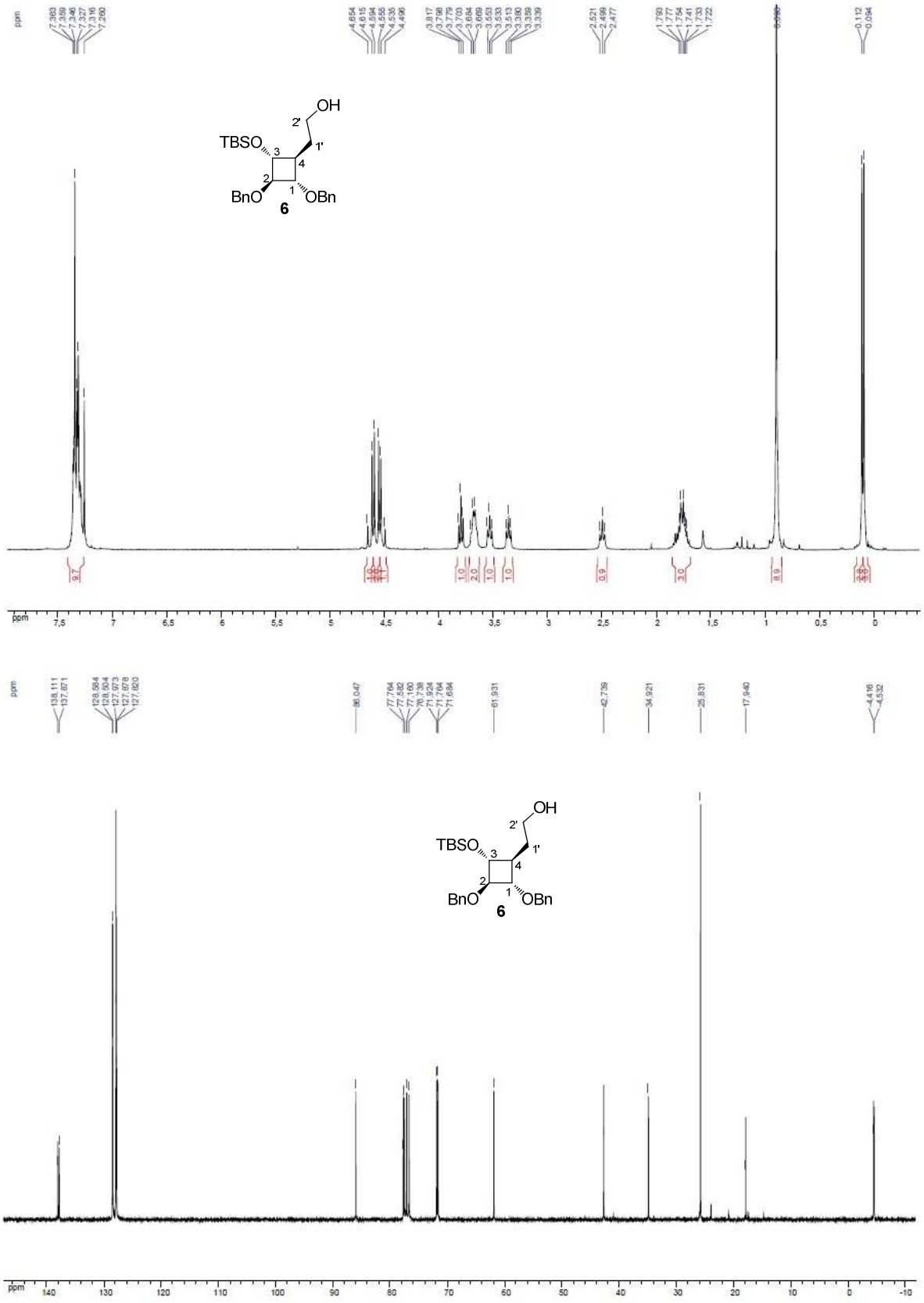

Fig 2. ^{1}H NMR (300 MHz, and $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **6**.

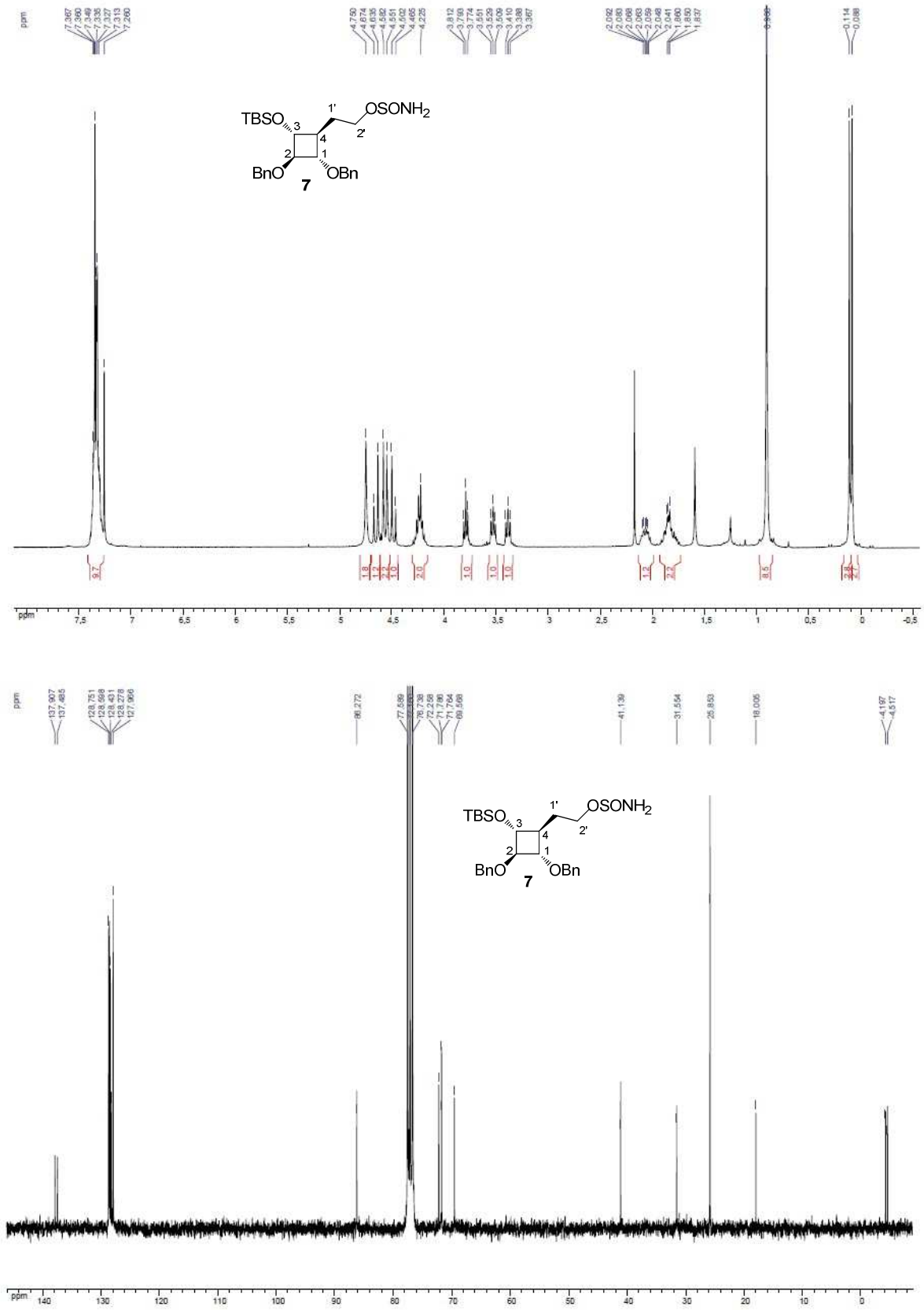

Fig 3. ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **7**.

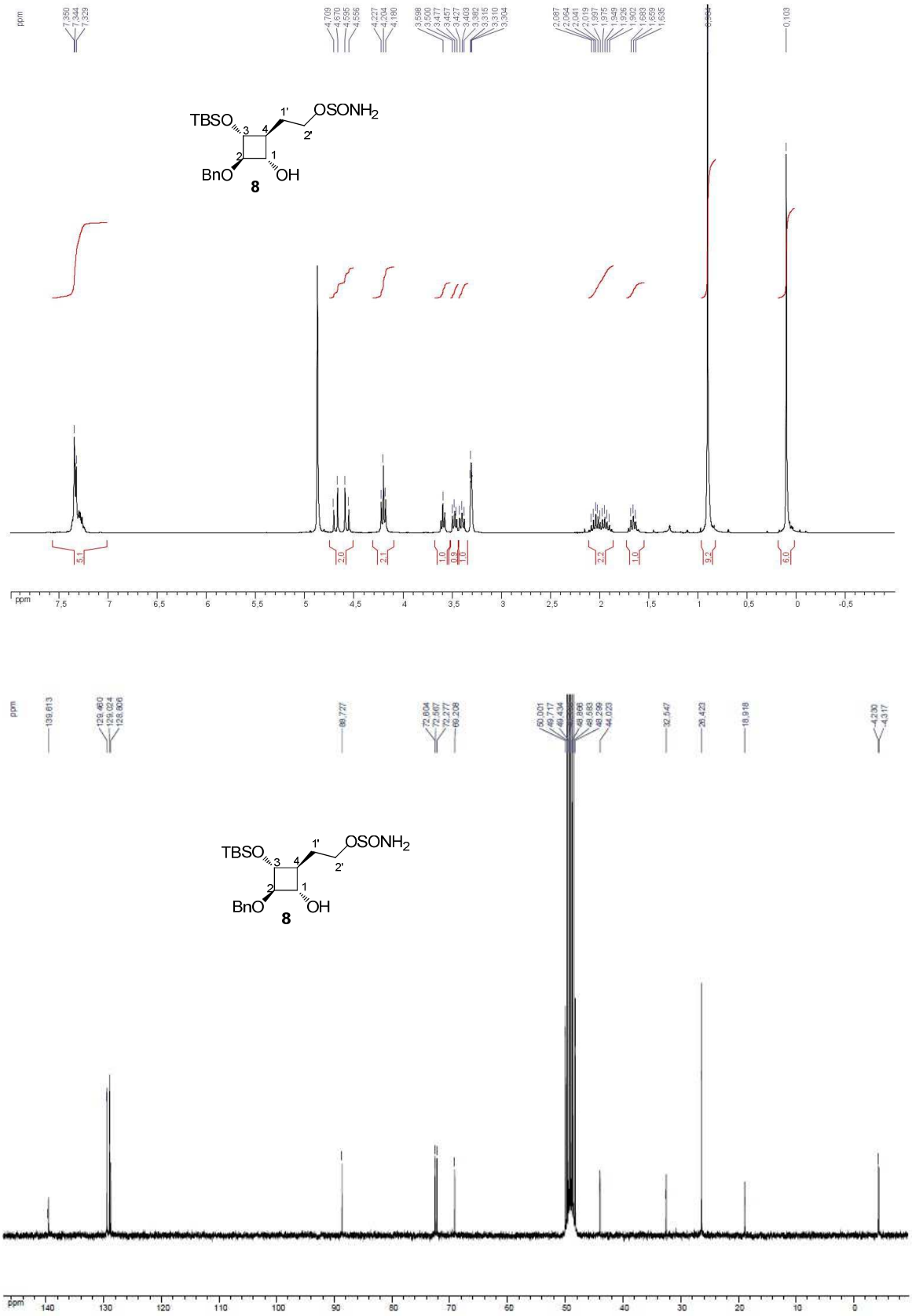

Fig 4 ^{1}H NMR (300 MHz, CD_3OD) and ^{13}C (75 MHz, CD_3OD) spectra of compound **8**.

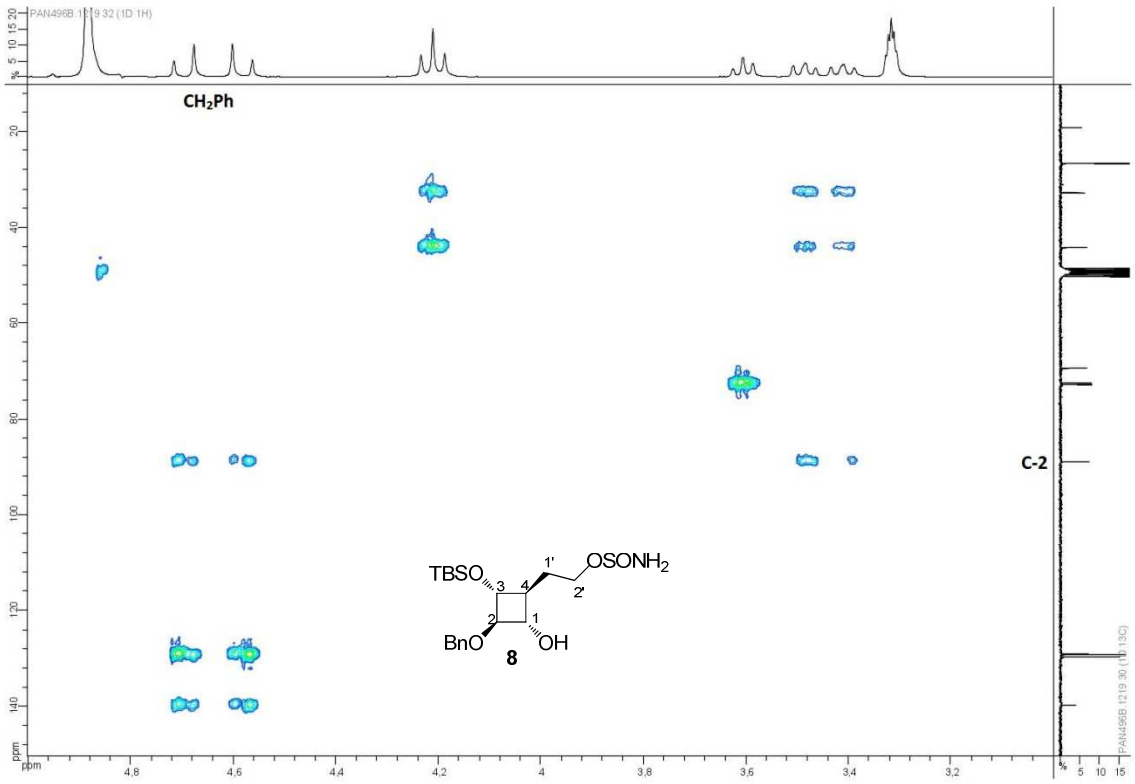

Fig 5 2D HMBC NMR spectrum of compound **8**.

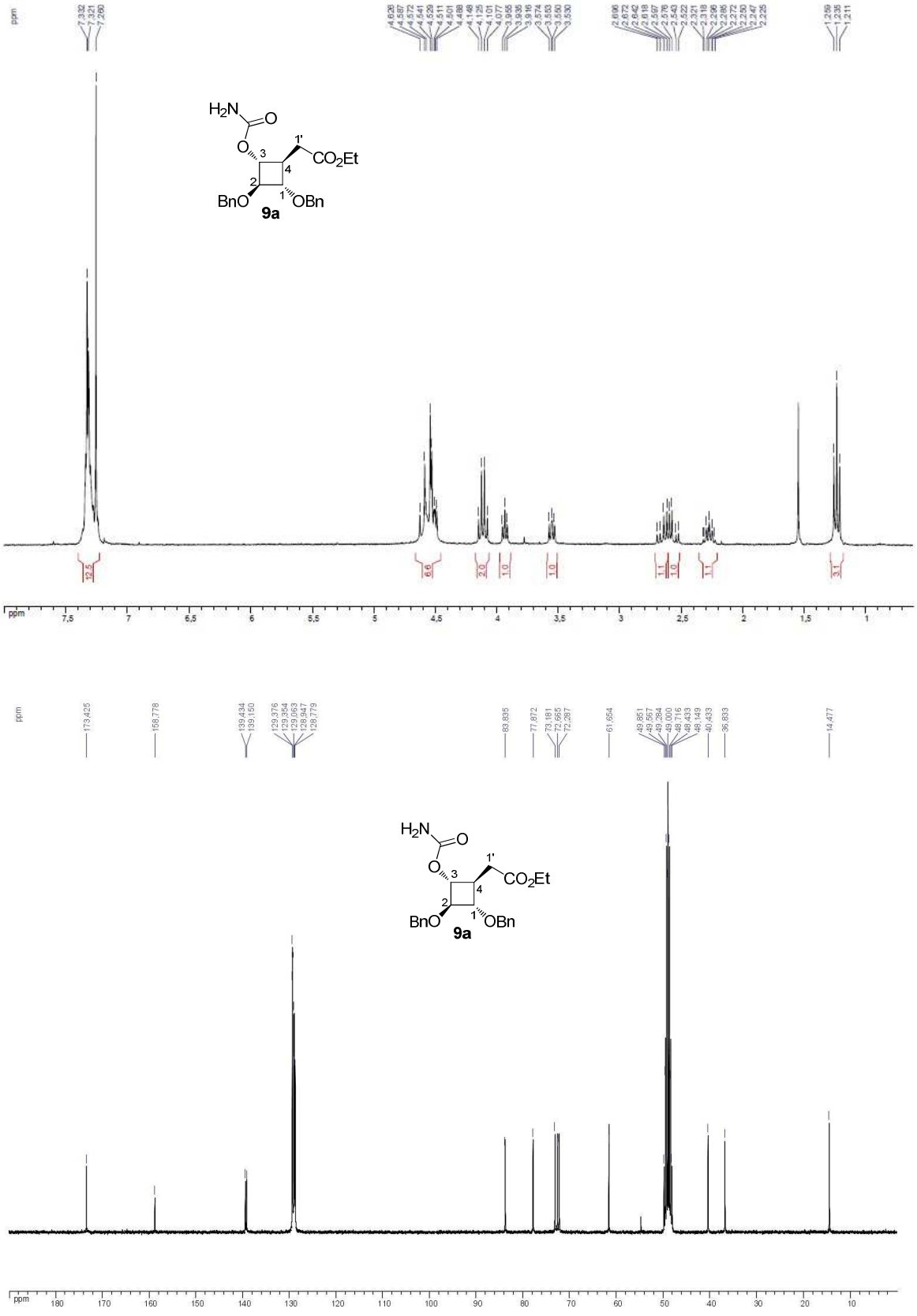

Fig 6 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **9a**.

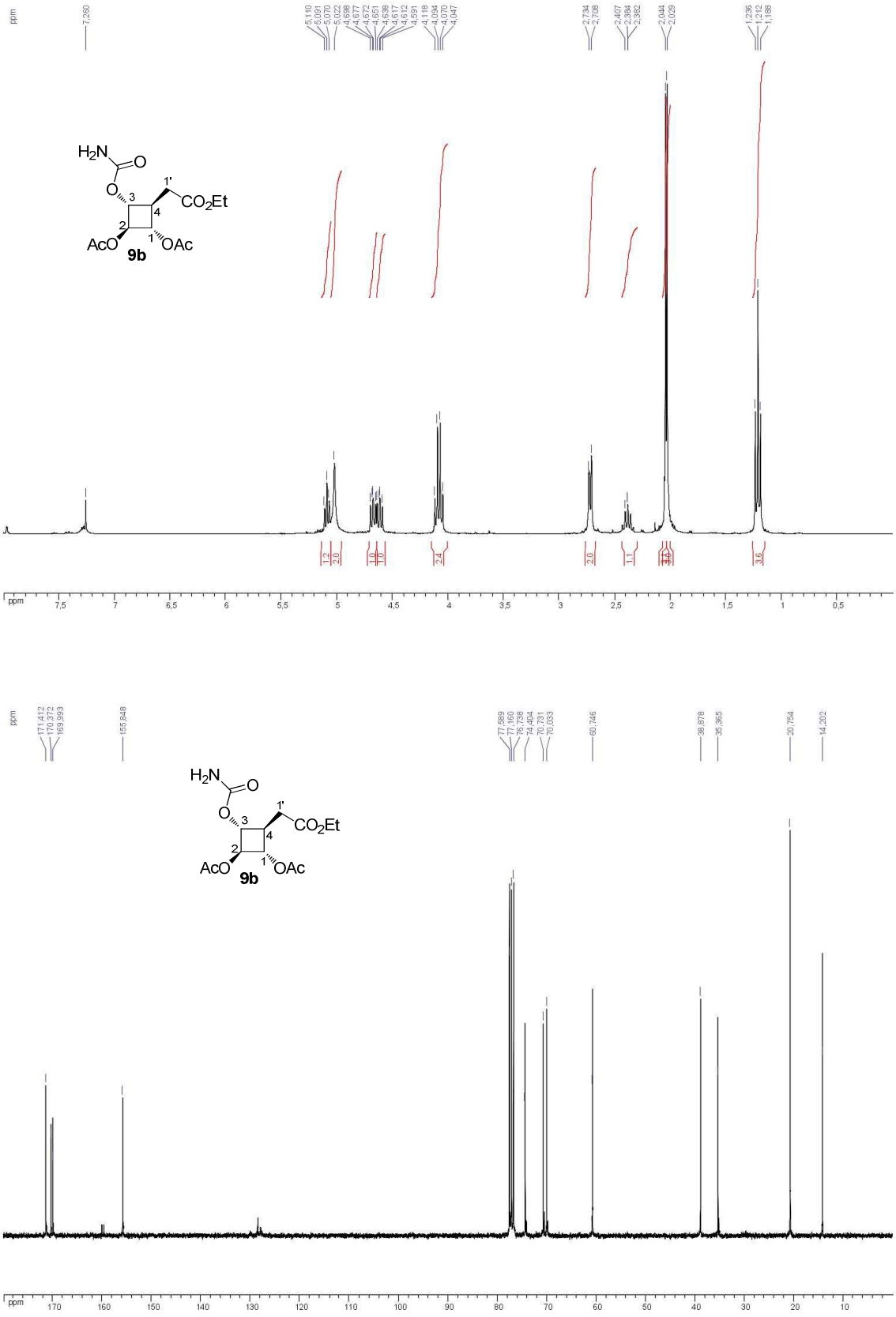

Fig 7 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **9b**.

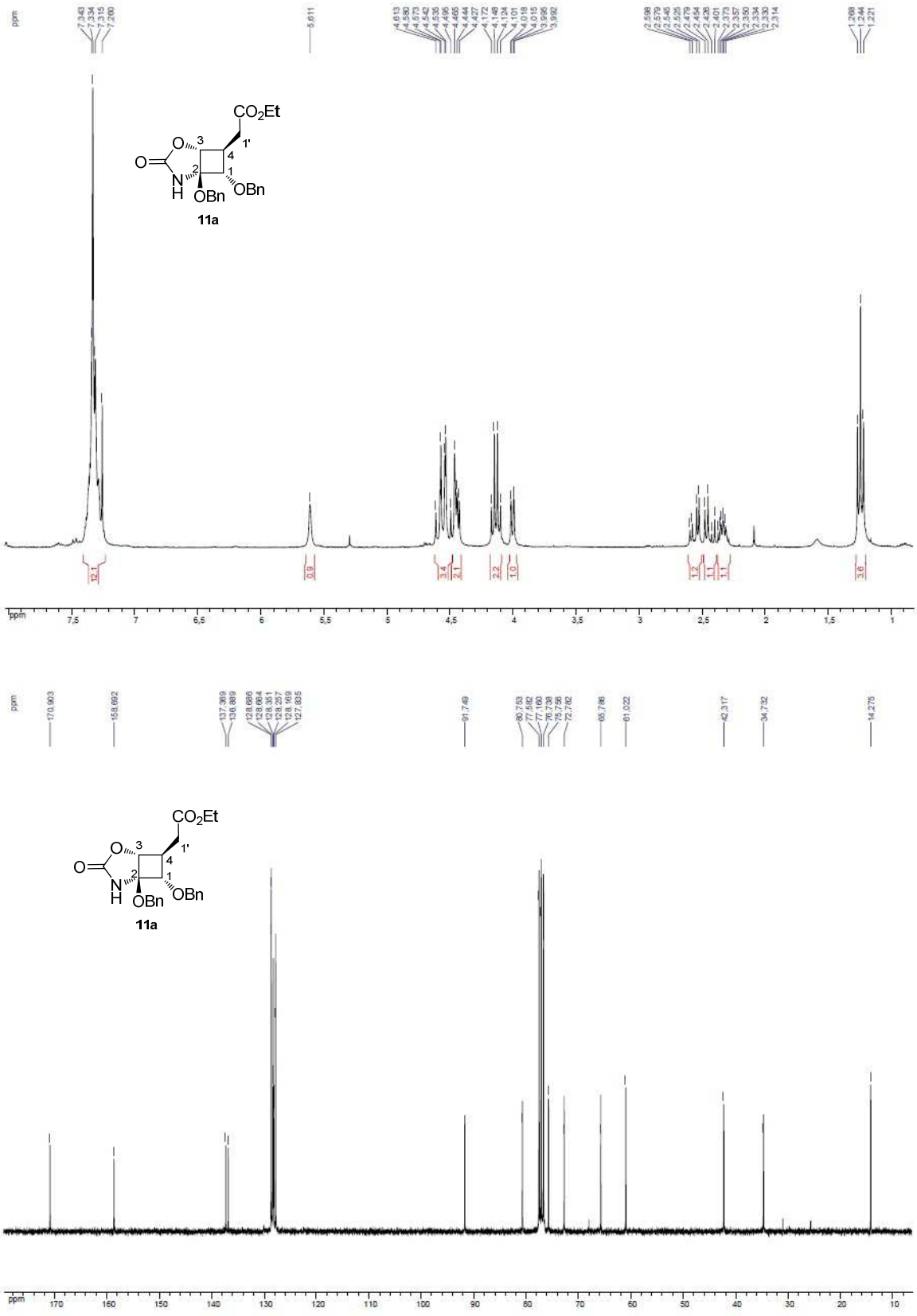

Fig 8 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **11a**.

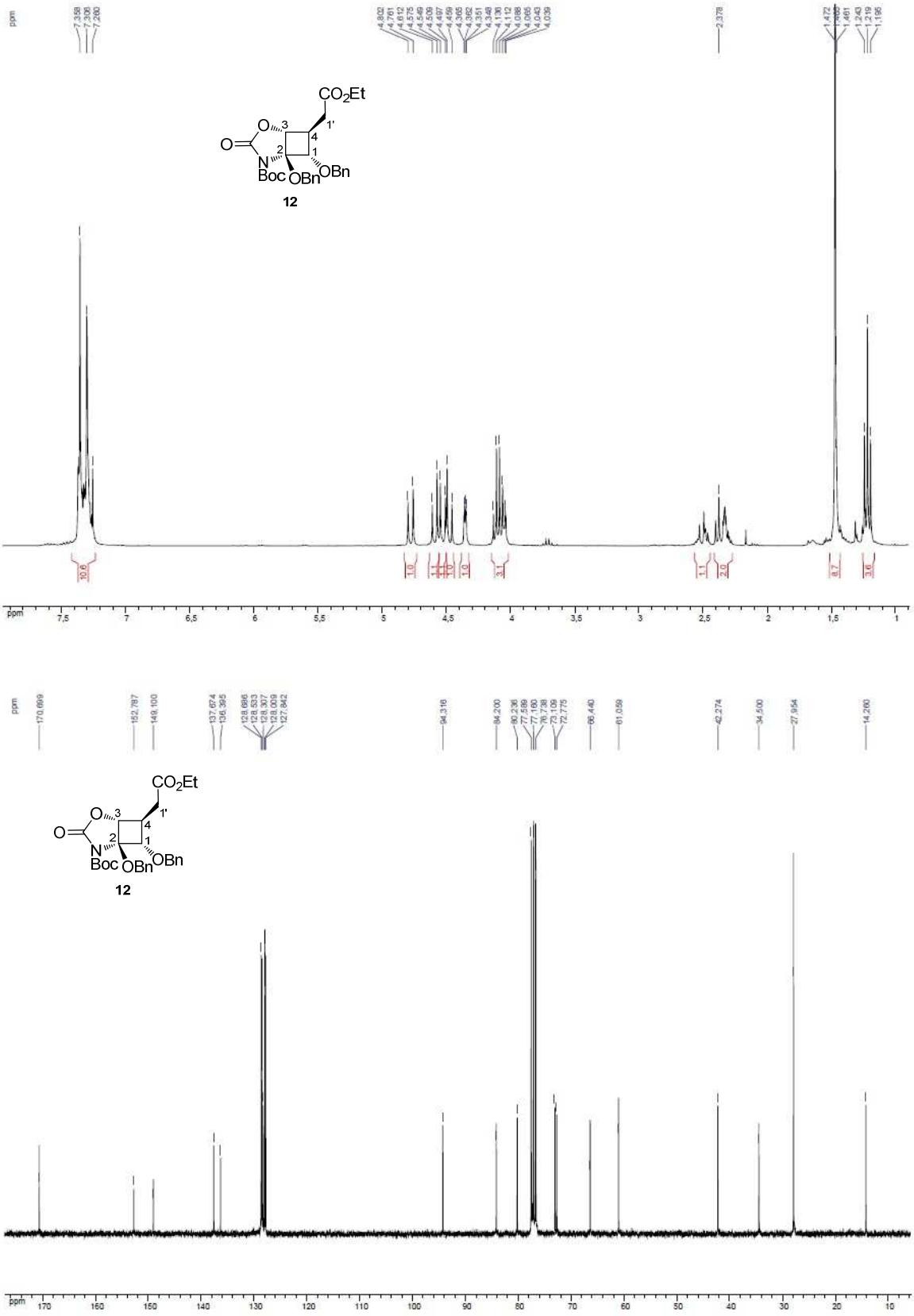

Fig 9 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **12**.

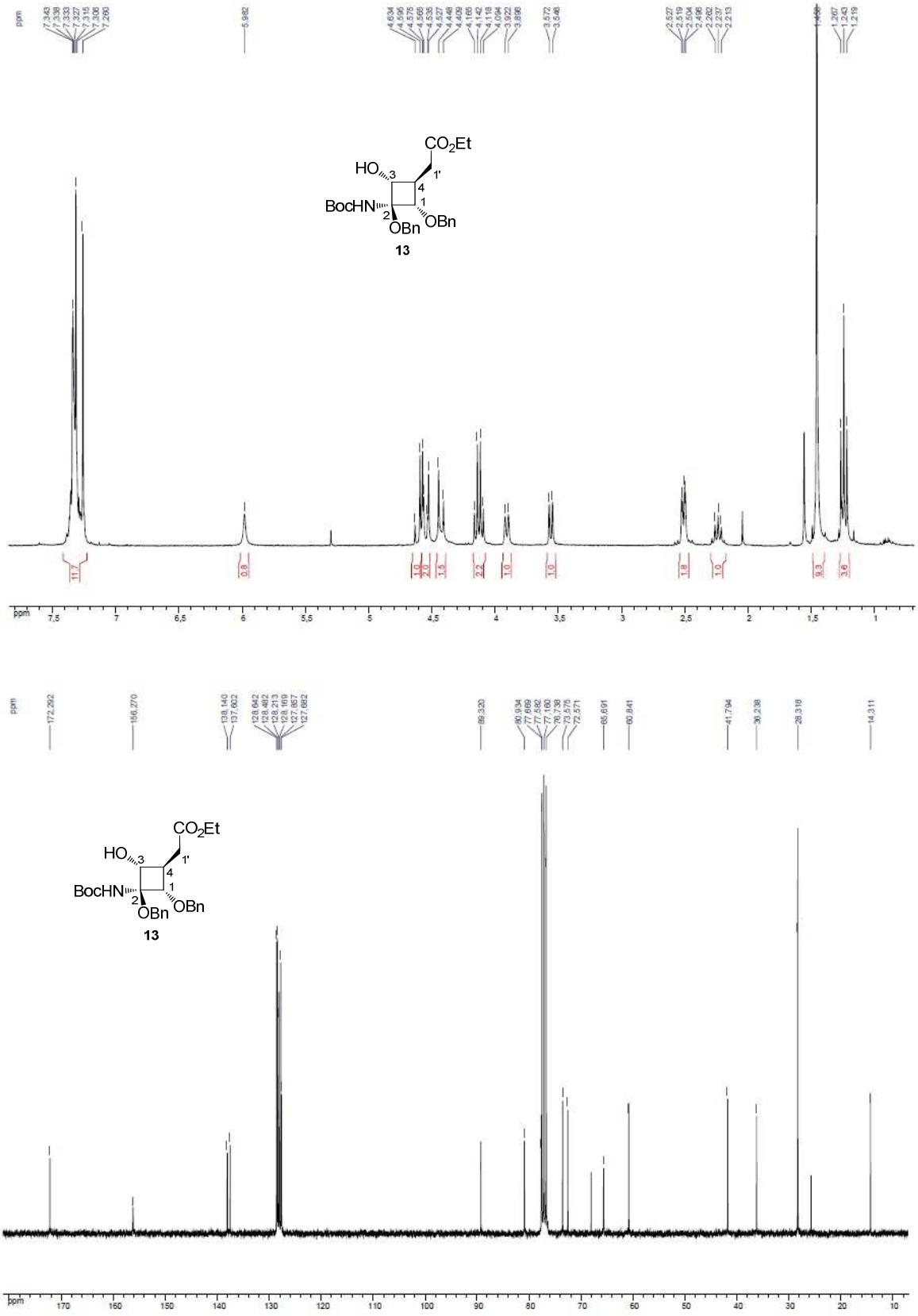

Fig 10 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **13**.

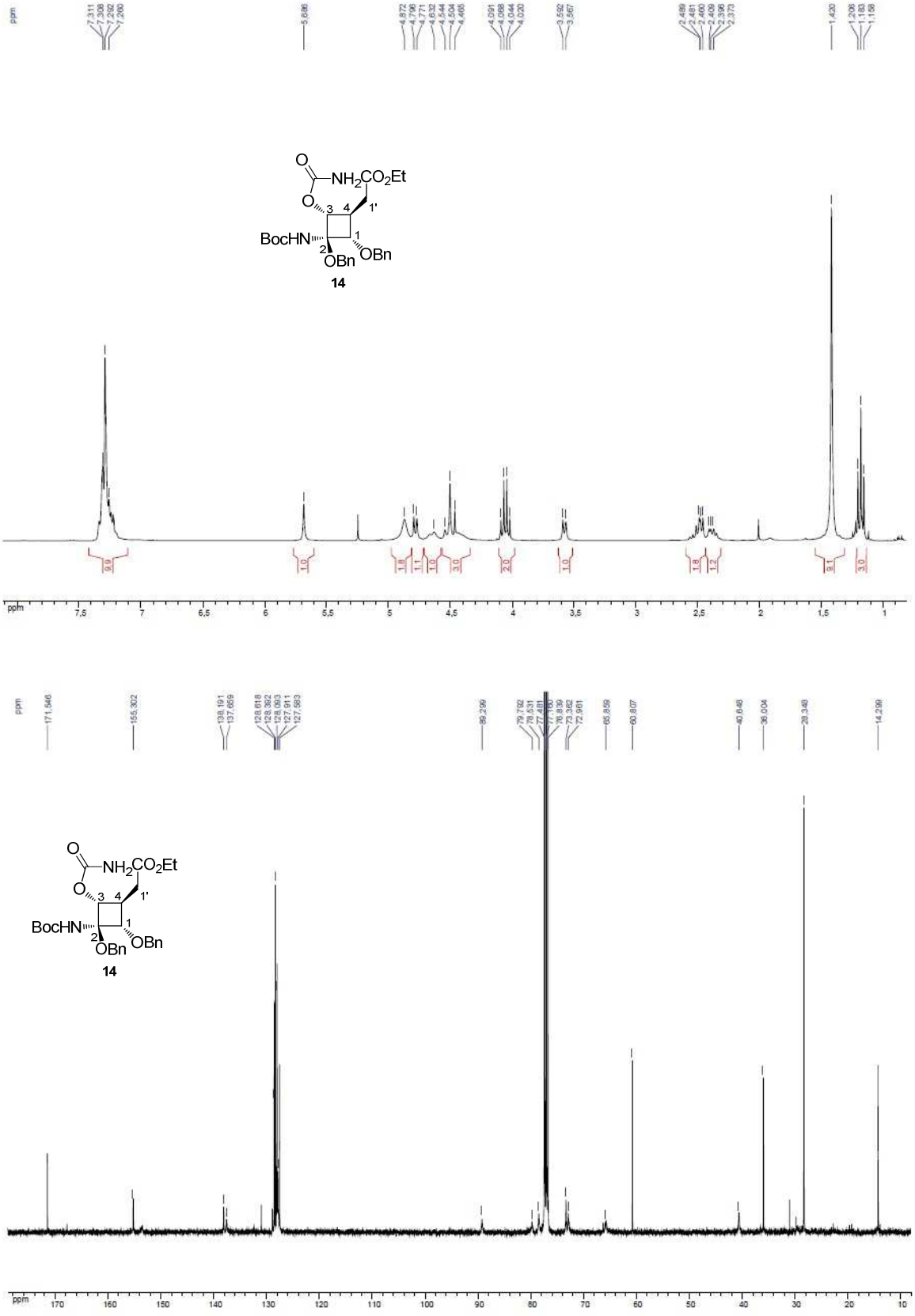

Fig 11 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75MHz, $CDCl_3$) spectra of compound **14**.

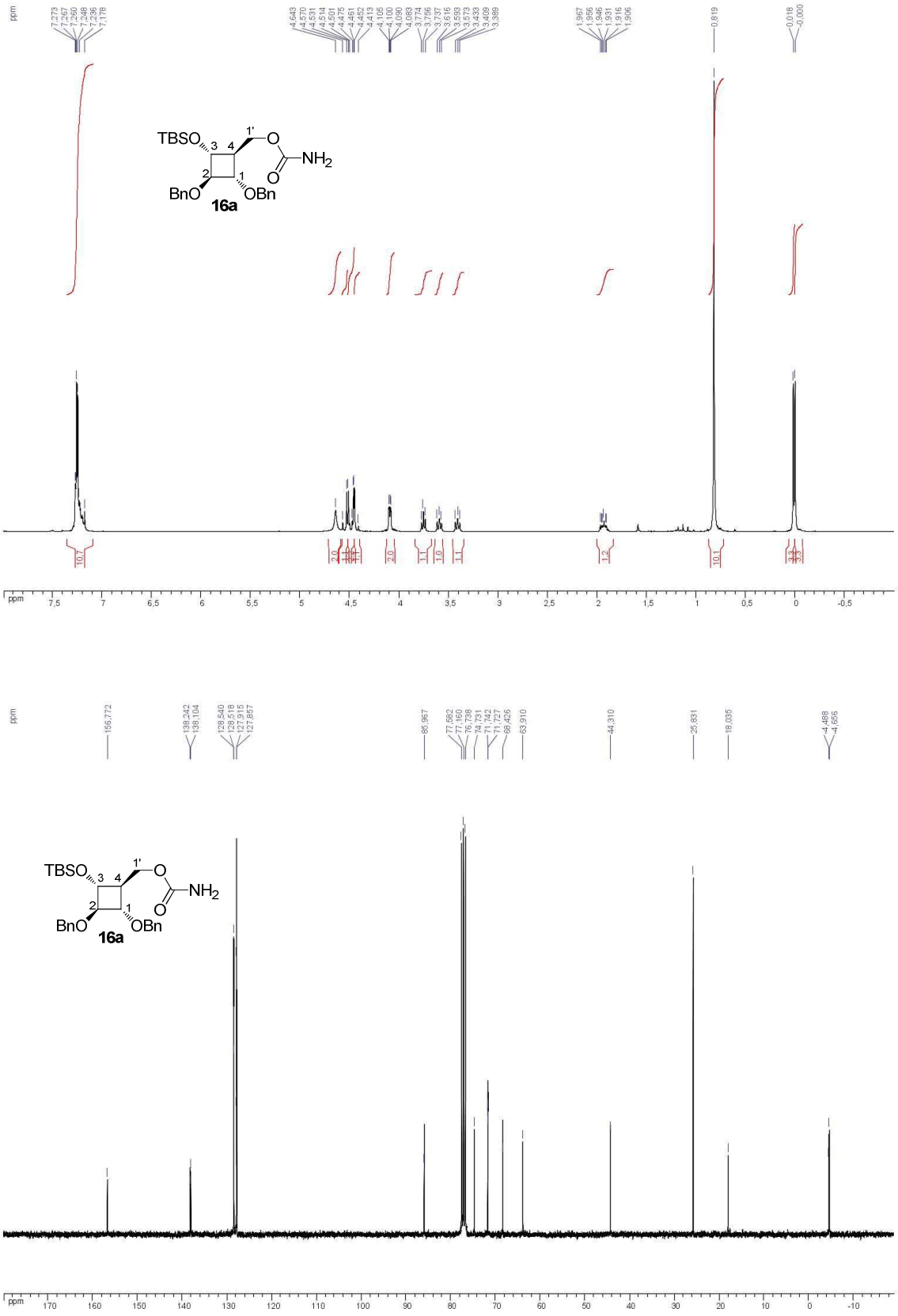

Fig 12 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75MHz, $CDCl_3$) spectra of compound **16a**.

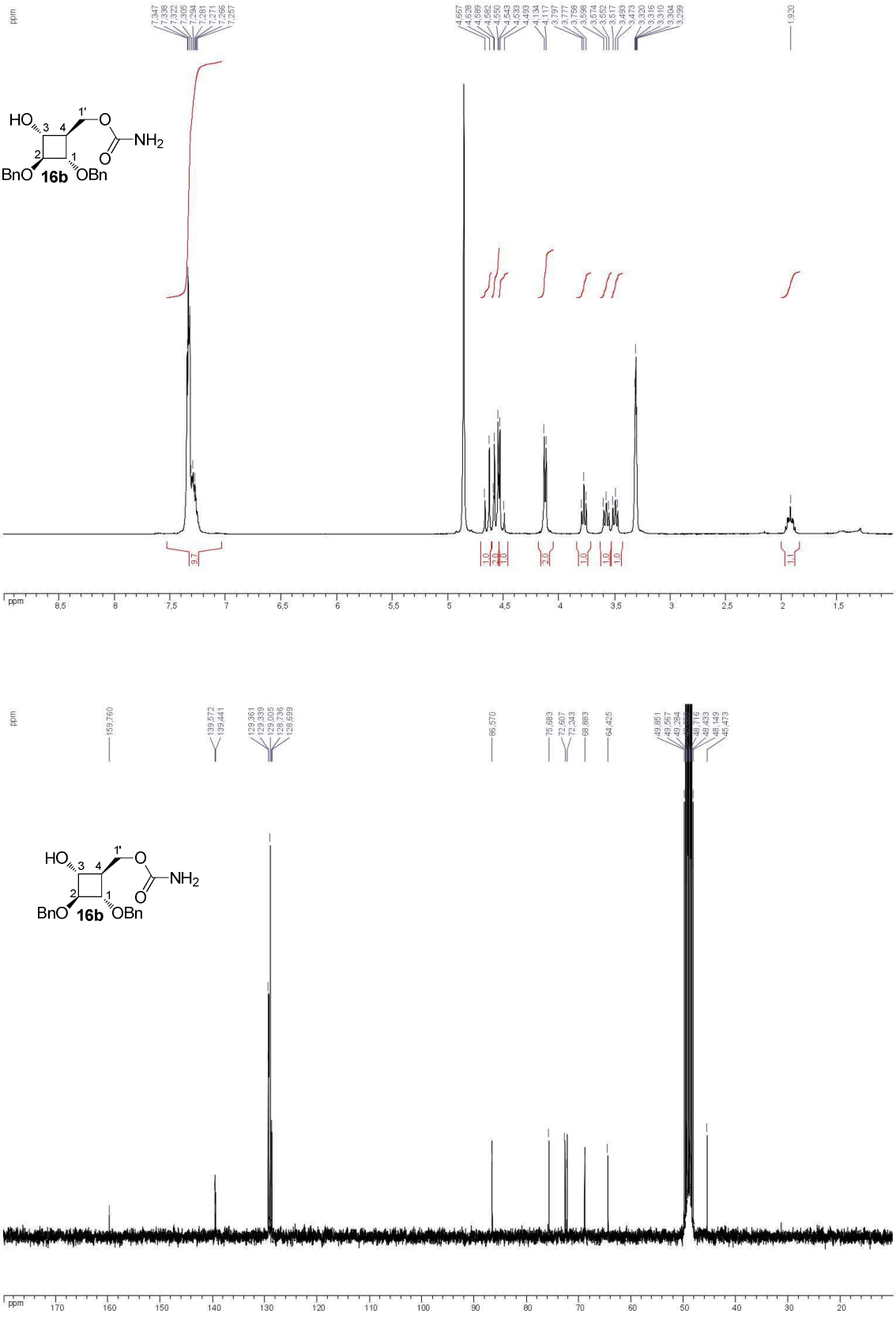

Fig 13 ^{1}H NMR (300 MHz, CD_3OD) and ^{13}C (75 MHz, CD_3OD) spectra of compound **16b**.

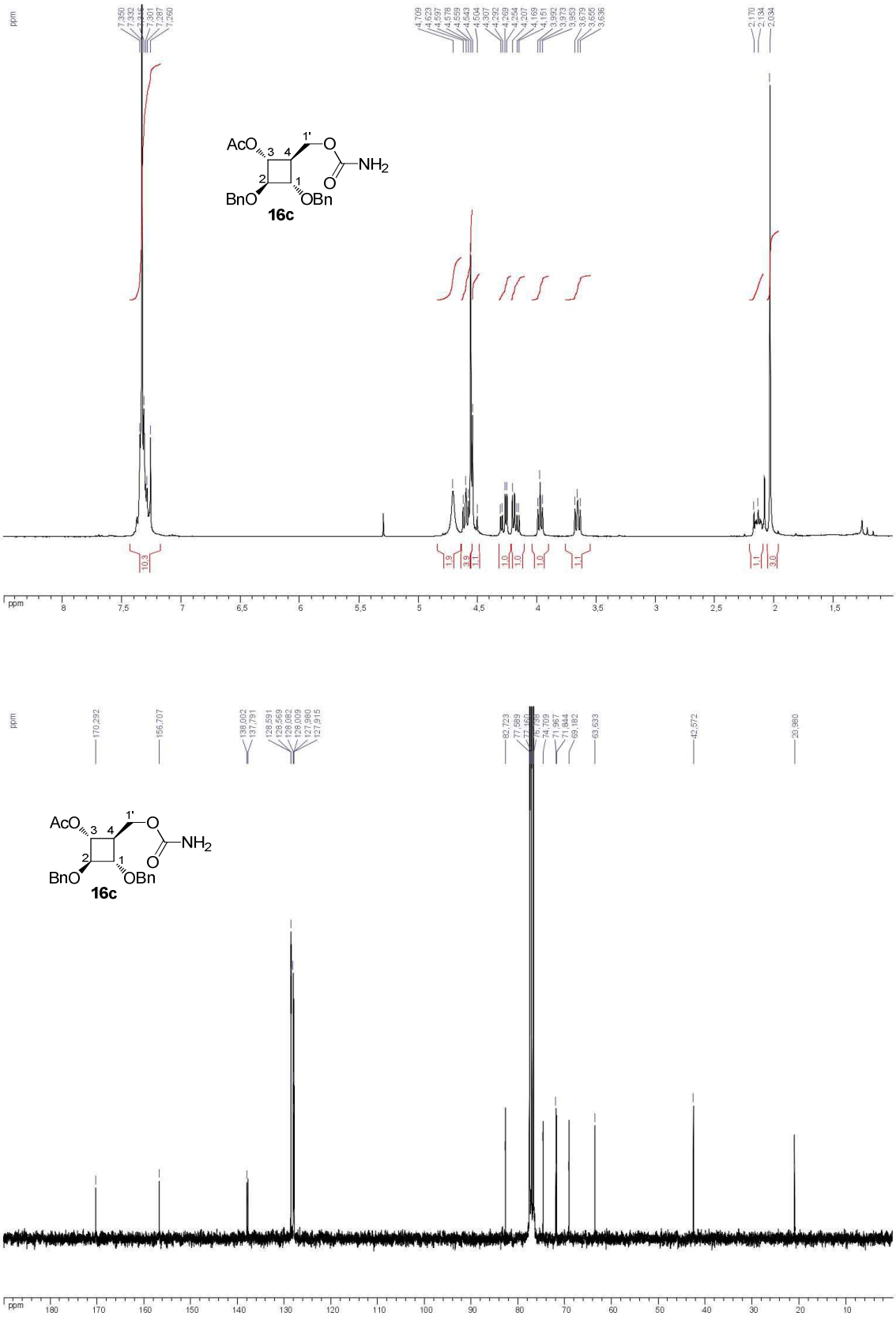

Fig 14 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **16c**.

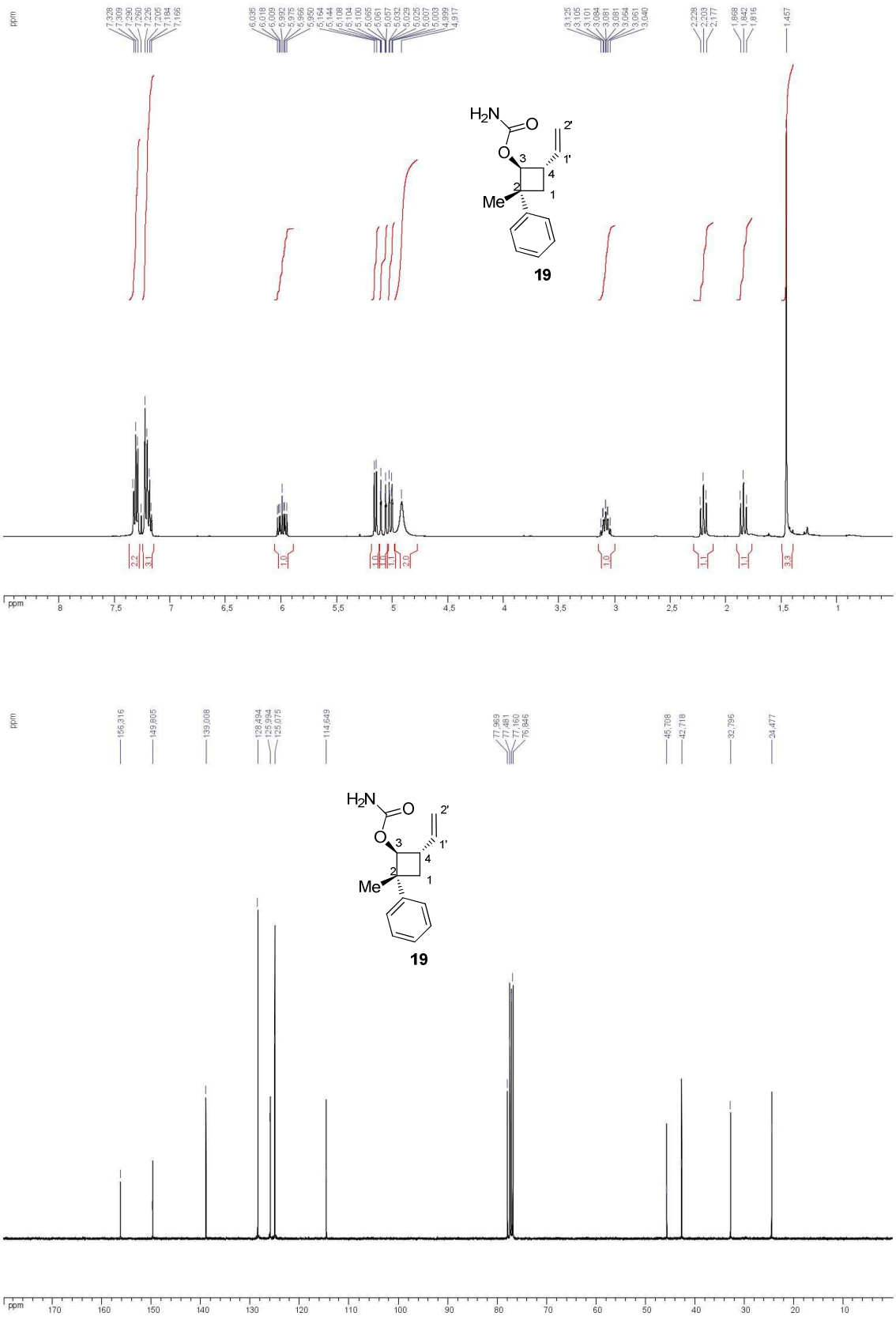

Fig 15 ^{1}H NMR (400 MHz, $CDCl_3$) and ^{13}C (100 MHz, $CDCl_3$) spectra of compound **19**.

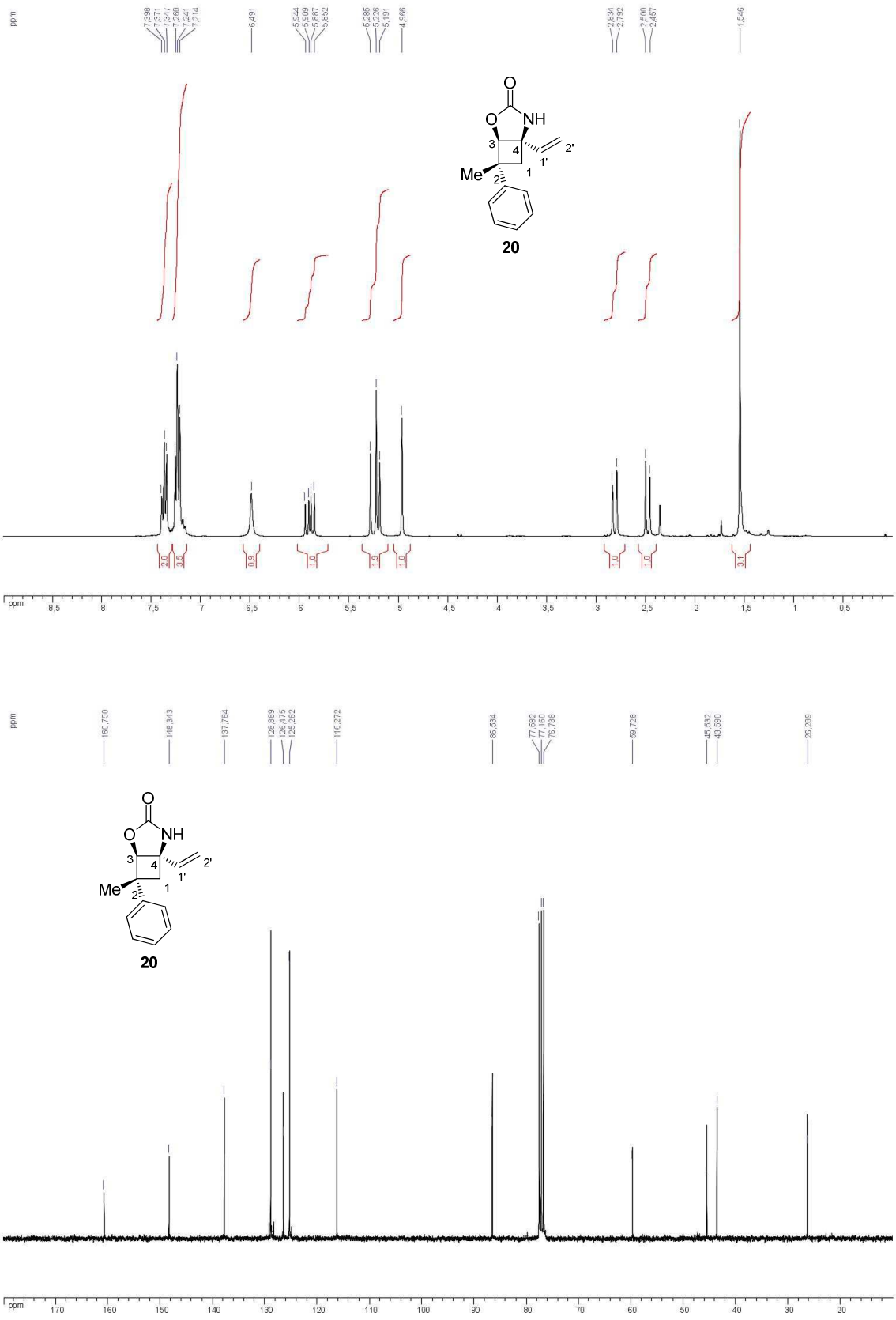

Fig 16 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **20**.

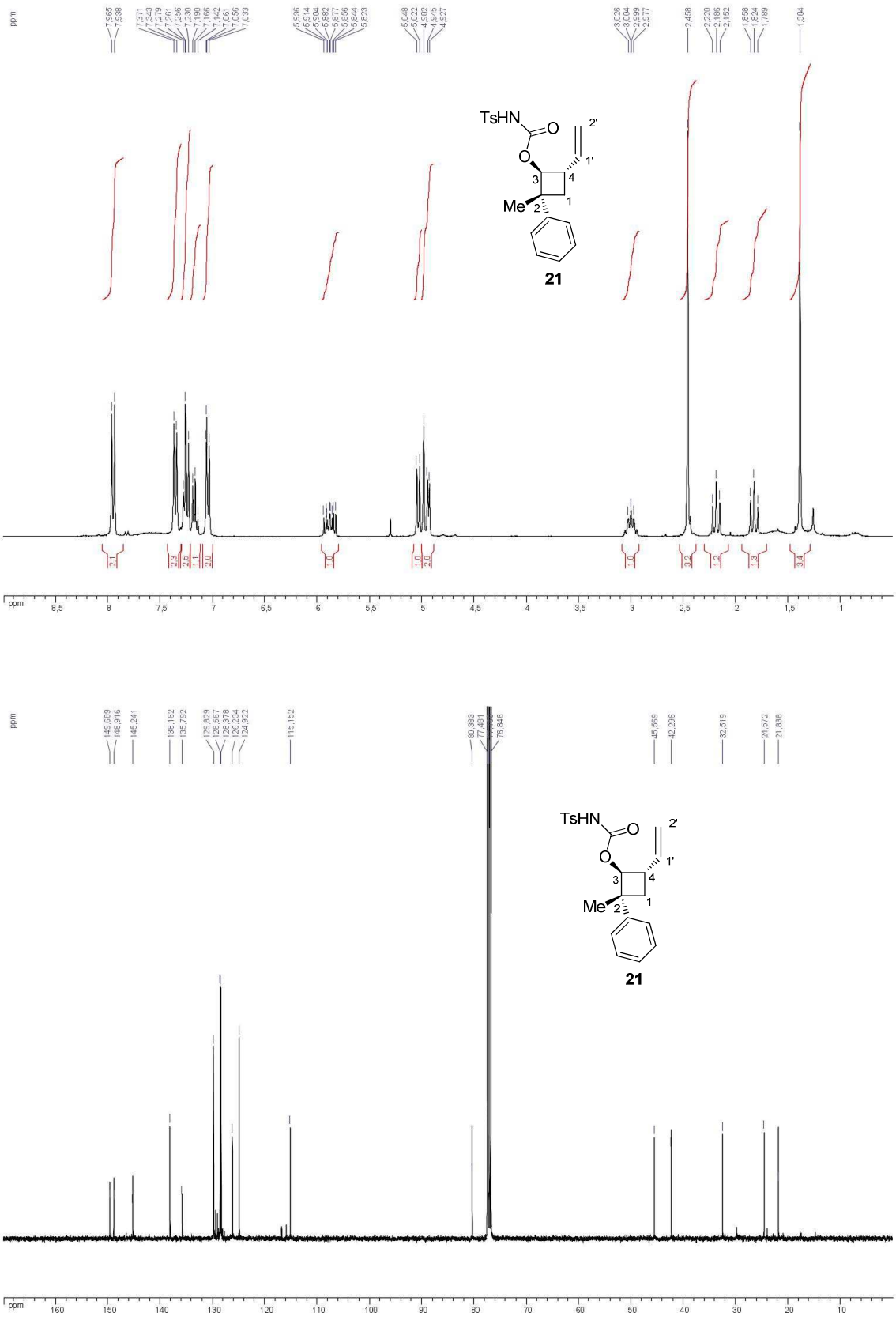

Fig 16 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **21**.

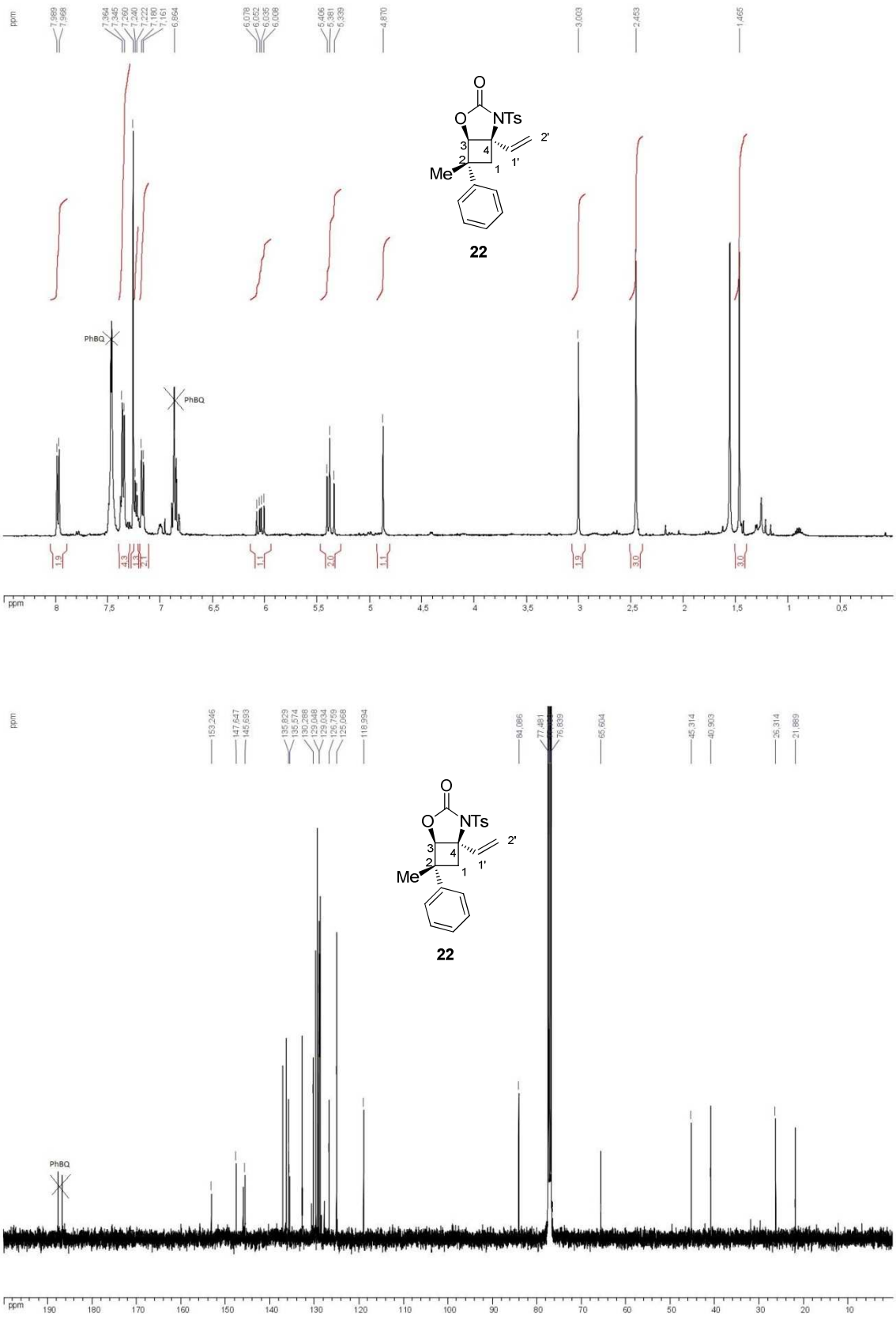

Fig 17 ^{1}H NMR (400 MHz, $CDCl_3$) and ^{13}C (100 MHz, $CDCl_3$) spectra of compound **22**.

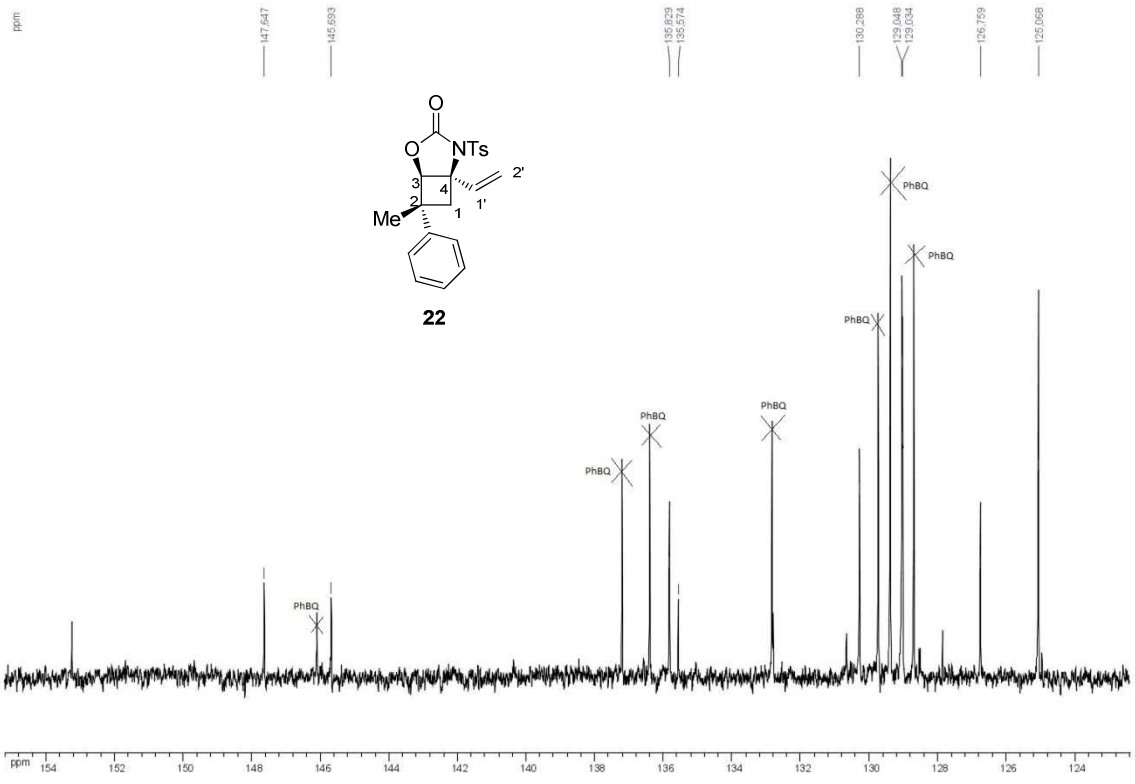

Fig 18 Zoom of ^{13}C (100 MHz, $CDCl_3$) spectrum of compound **22**.

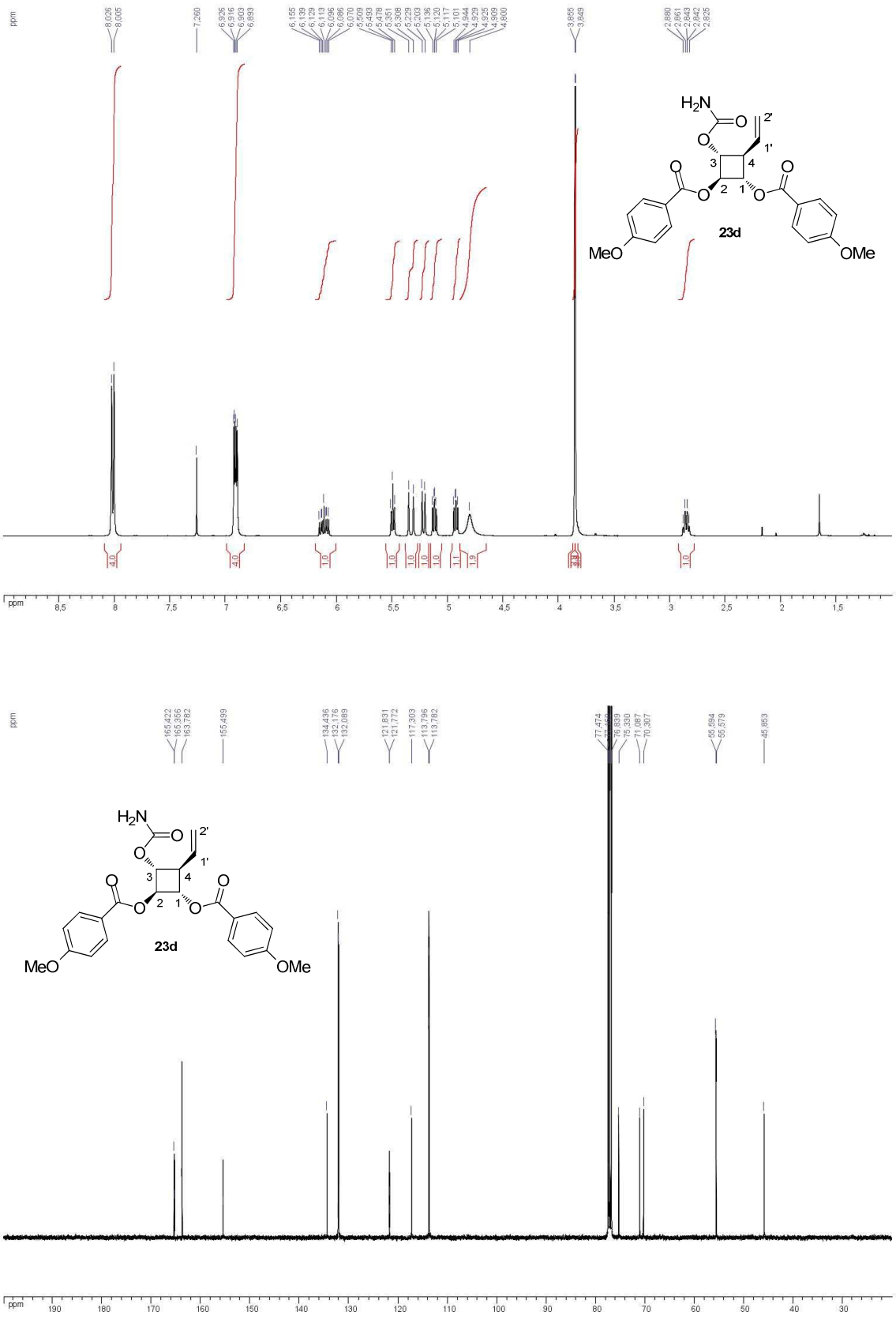

Fig 19 ^{1}H NMR (400 MHz, $CDCl_3$) and ^{13}C (100 MHz, $CDCl_3$) spectra of compound **23d**.

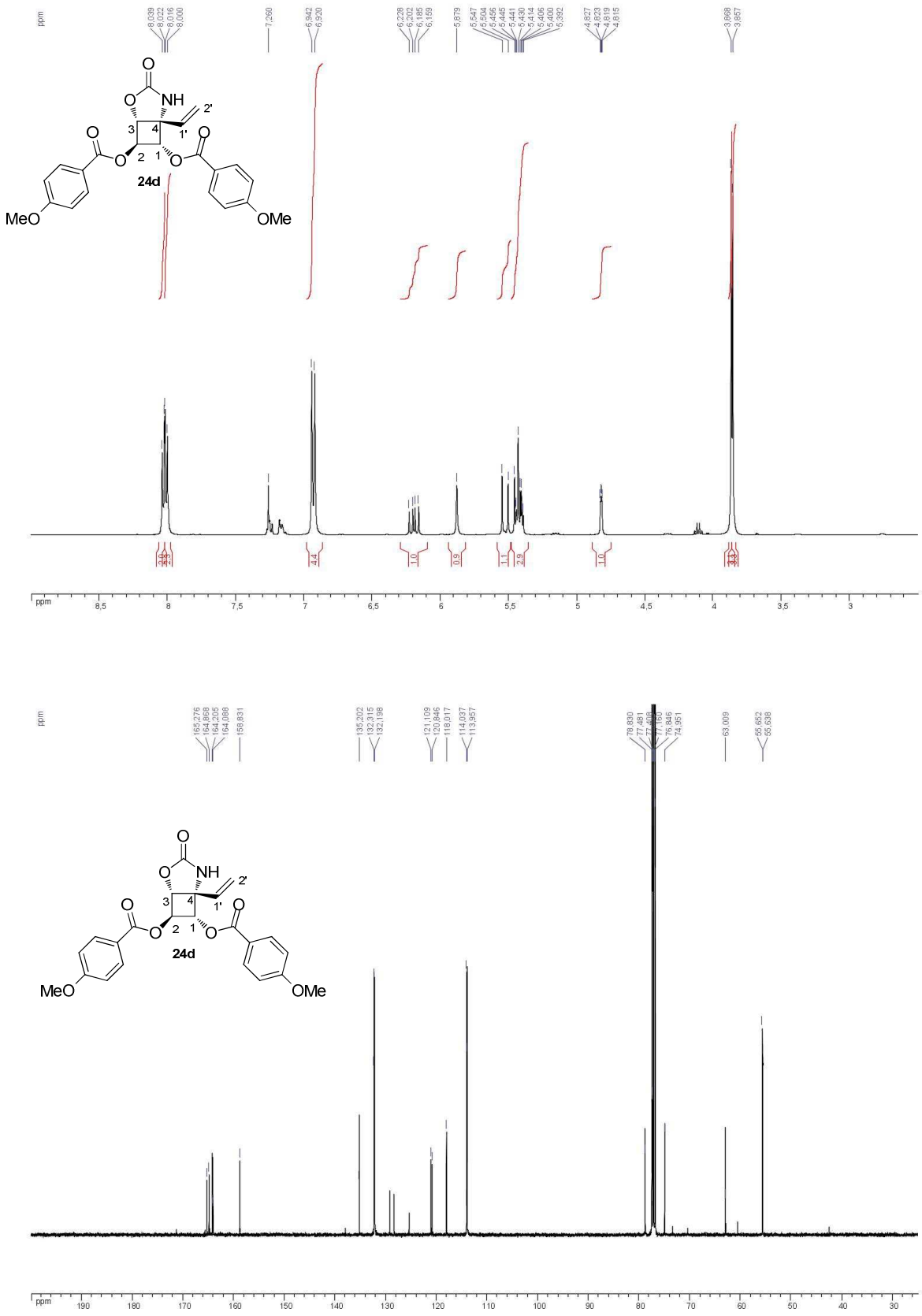

Fig 20 ^{1}H NMR (400 MHz, $CDCl_3$) and ^{13}C (100 MHz, $CDCl_3$) spectra of compound **24d**.

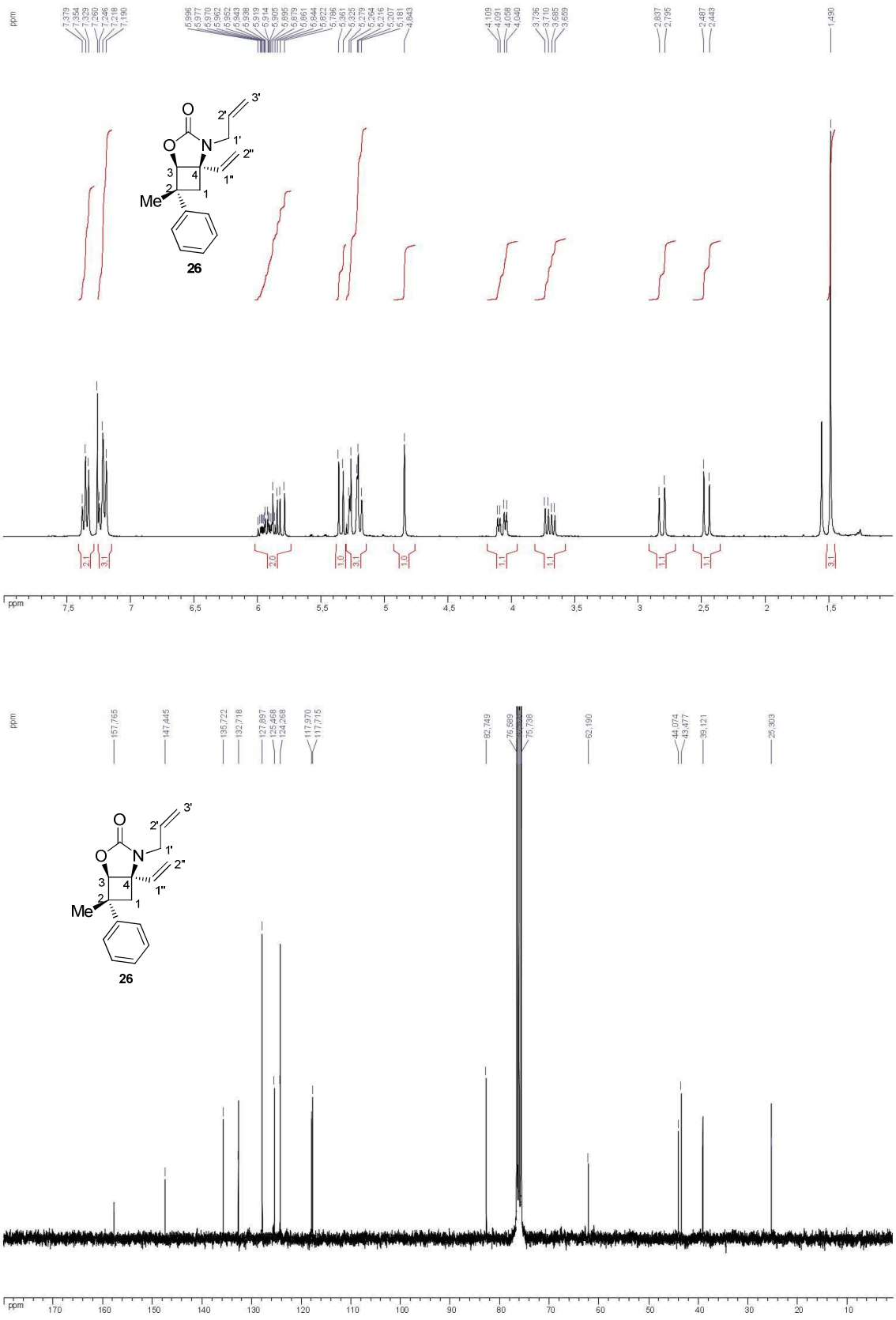

Fig 21 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (75 MHz, $CDCl_3$) spectra of compound **26**.

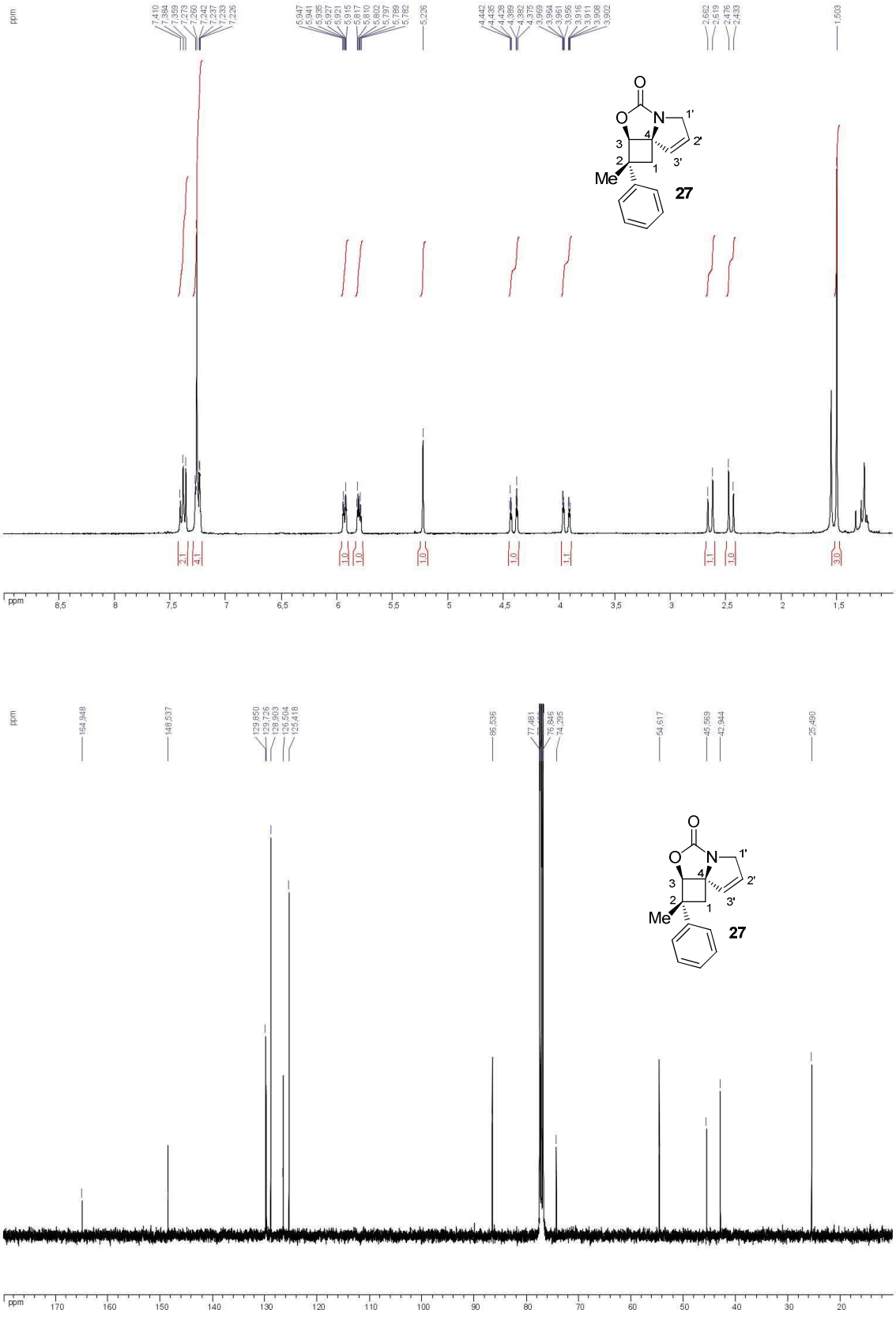

Fig 22 ^{1}H NMR (300 MHz, $CDCl_3$) and ^{13}C (100 MHz, $CDCl_3$) spectra of compound **27**.