

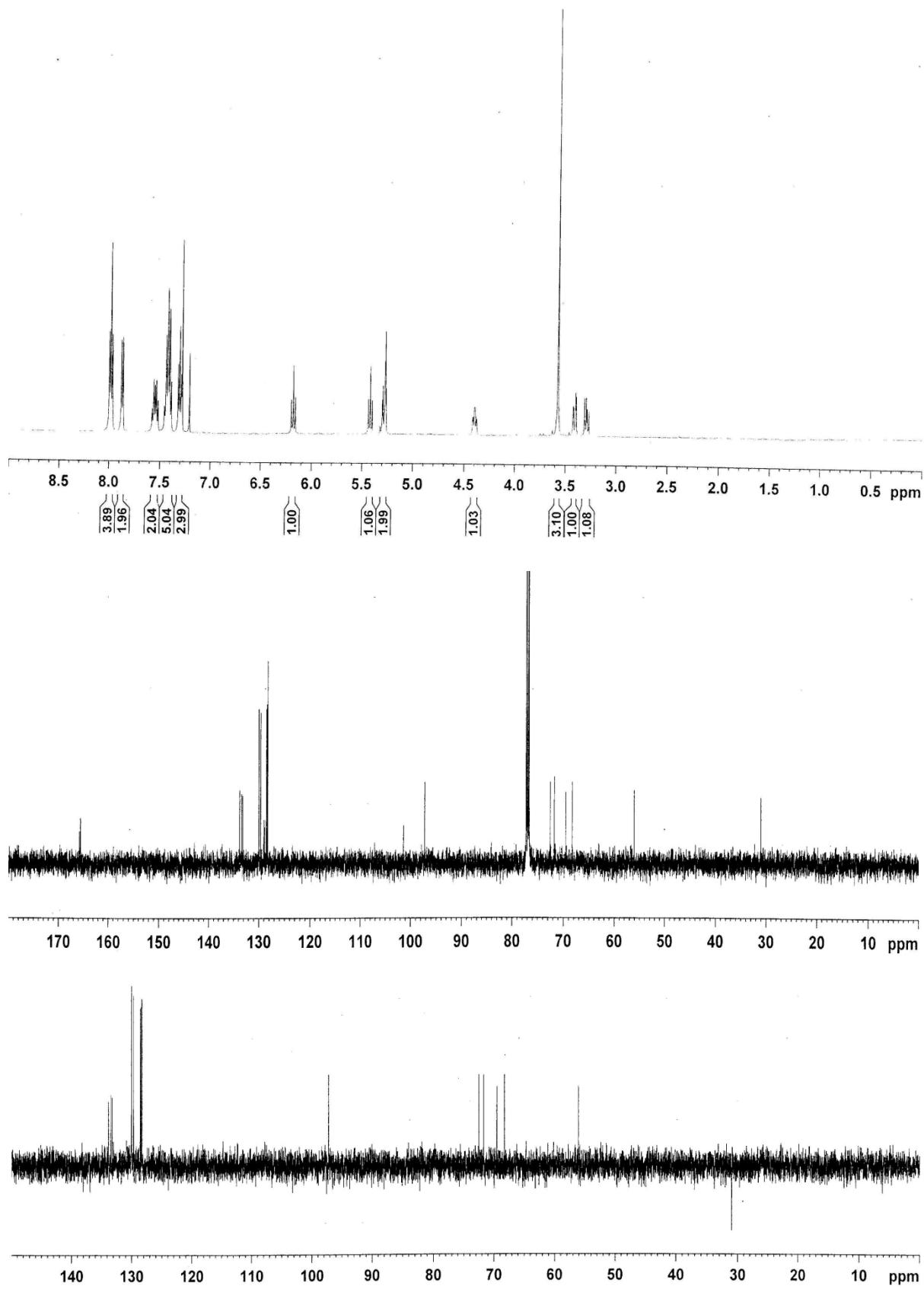
## Supporting Information

### On-Water synthesis of glycosyl selenocyanate derivatives and their application in the metal free organocatalytic preparation of nonglycosidic selenium linked pseudodisaccharide derivatives

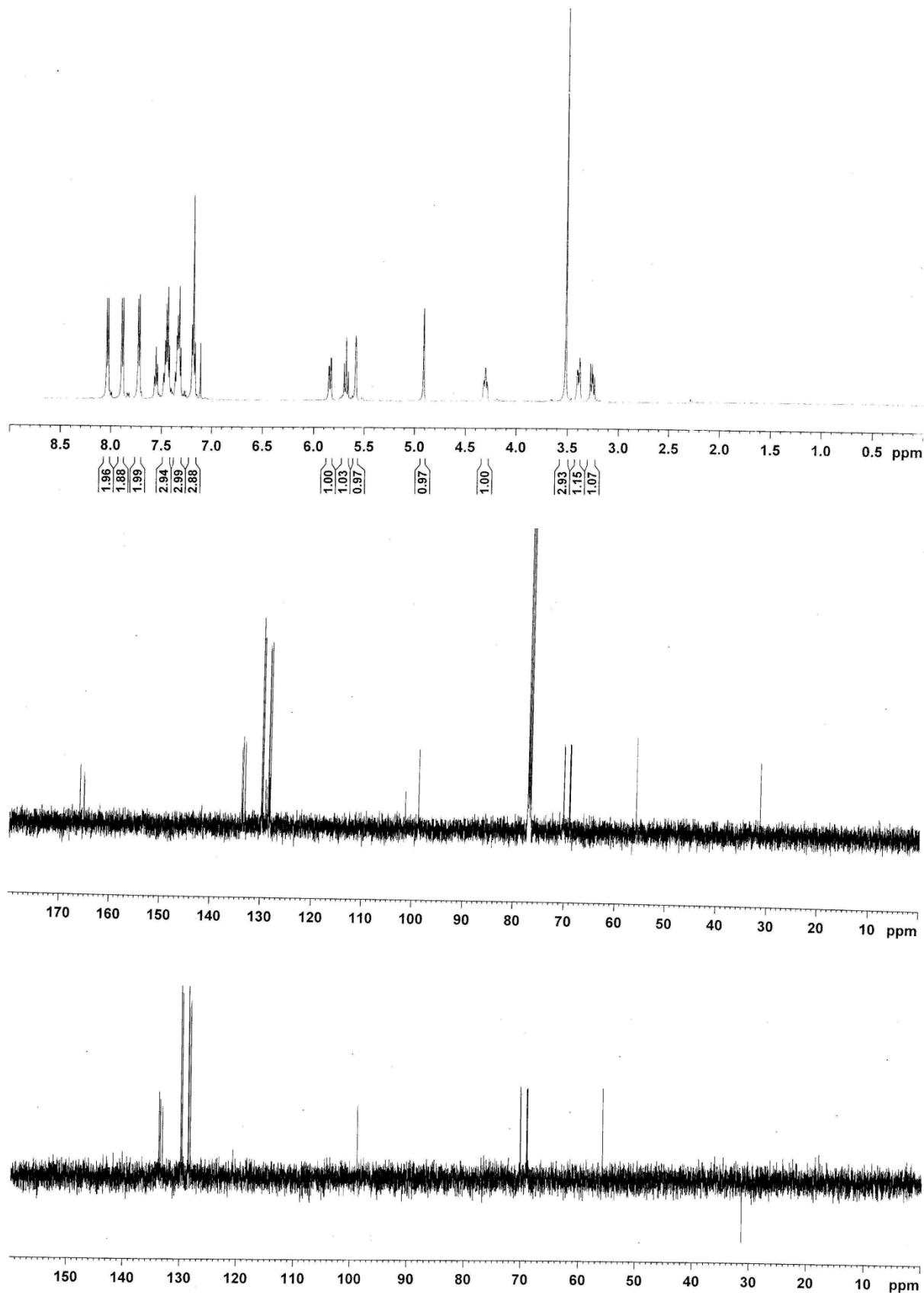
Tapasi Manna and Anup Kumar Misra\*

#### Index

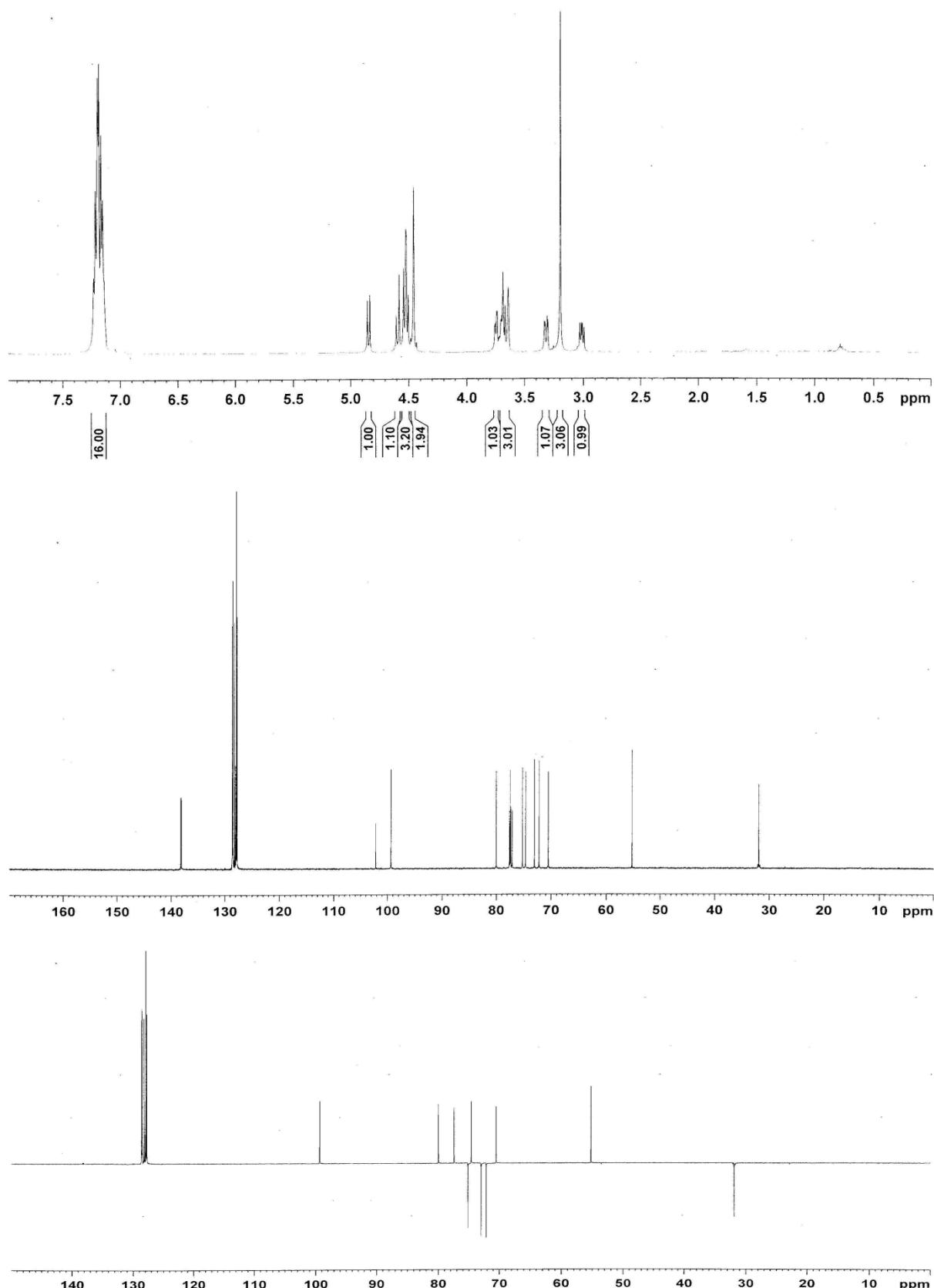
Subject	Page No.
$^1\text{H}$ , $^{13}\text{C}$ and DEPT 135 NMR spectra of compounds <b>8-14</b> and <b>18-32</b>	2-23



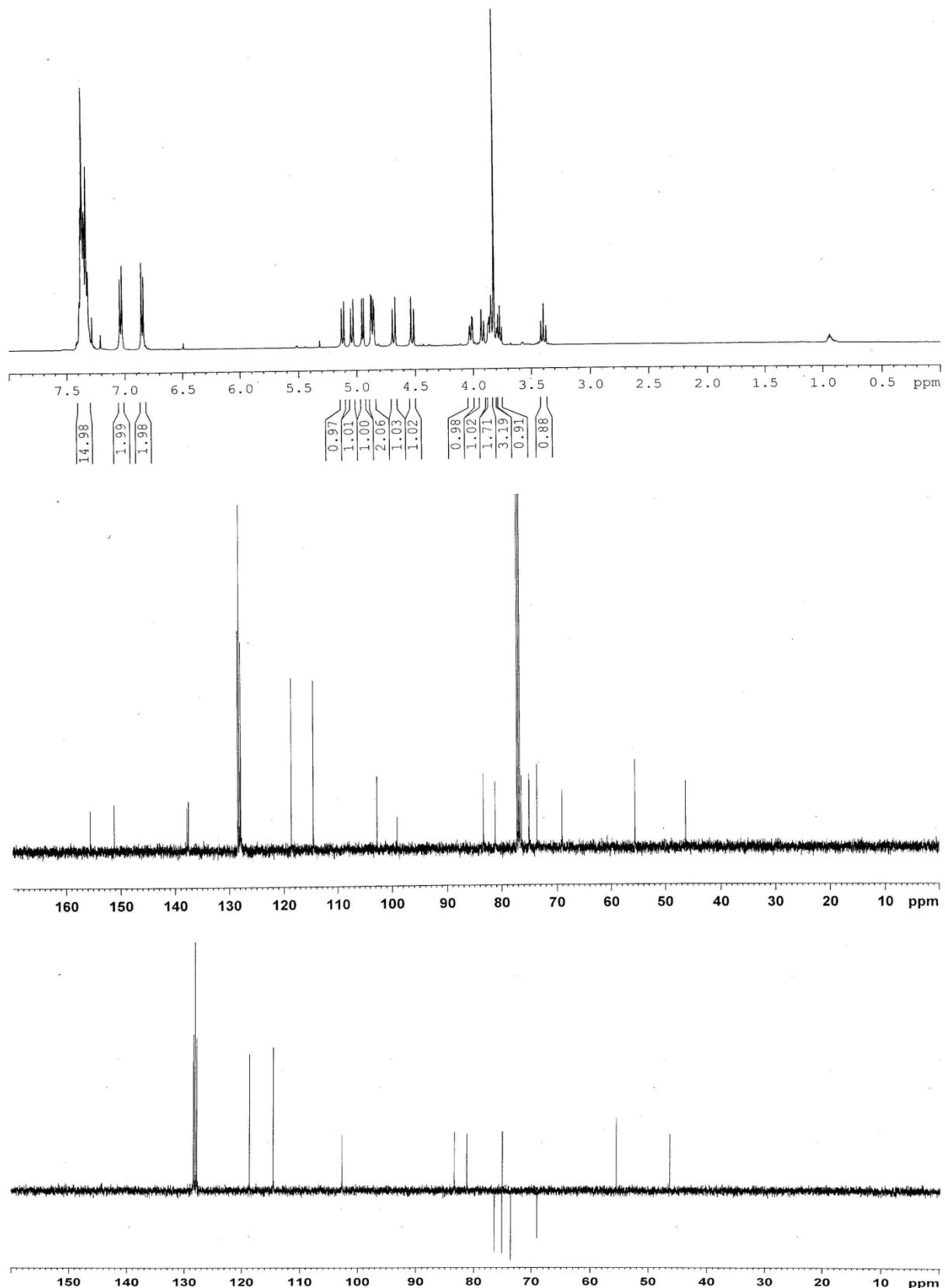
<sup>1</sup>H, <sup>13</sup>C and DEPT 135 NMR spectra of methyl 2,3,4-tri-O-benzoyl-6-deoxy-6-selenocyanato- $\alpha$ -D-glucopyranoside (**8**) (500 MHz, CDCl<sub>3</sub>).



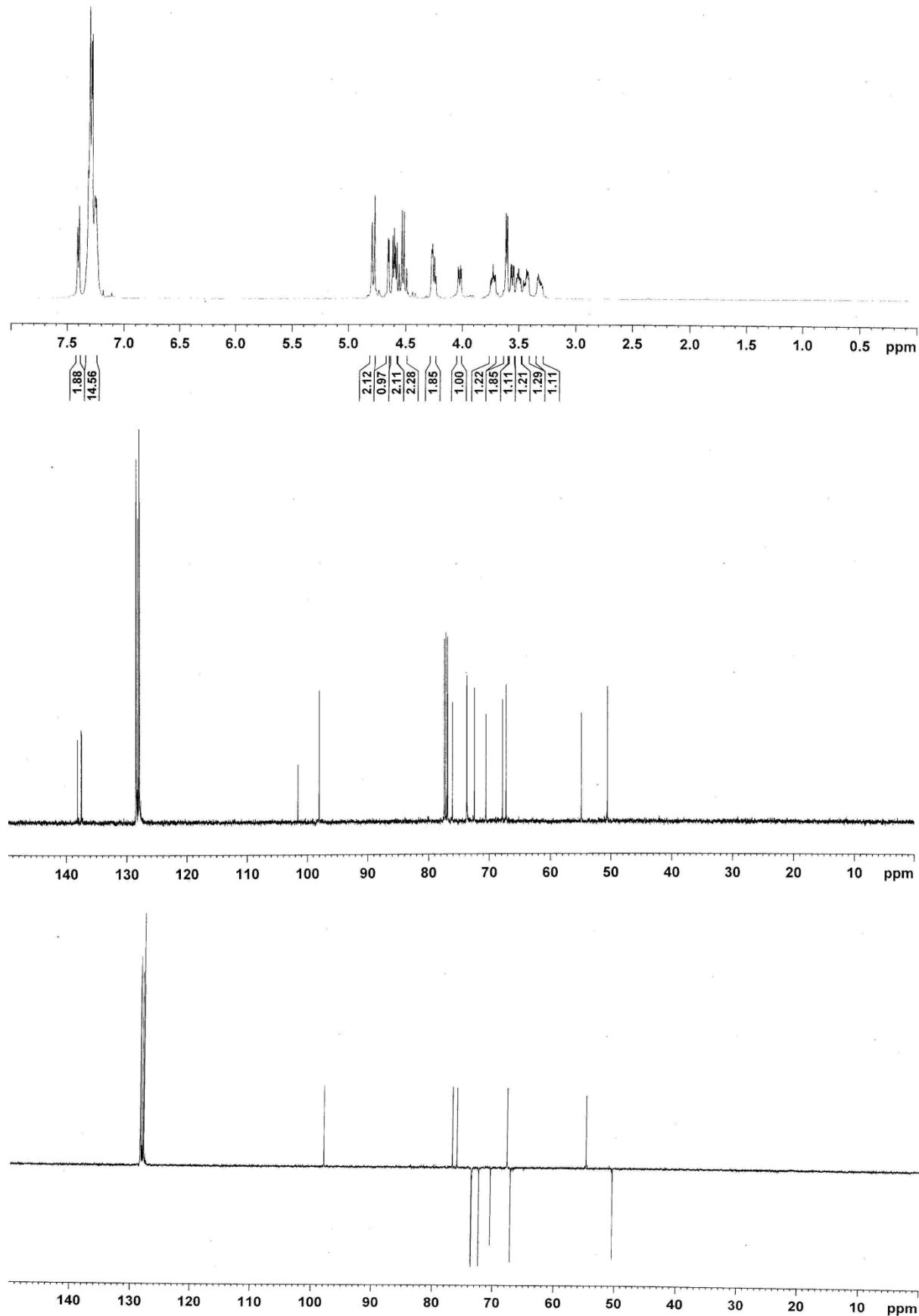
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of methyl 2,3,4-tri-O-benzoyl-6-deoxy-6-selenocyanato- $\alpha$ -D-mannopyranoside (**9**) (500 MHz,  $\text{CDCl}_3$ ).



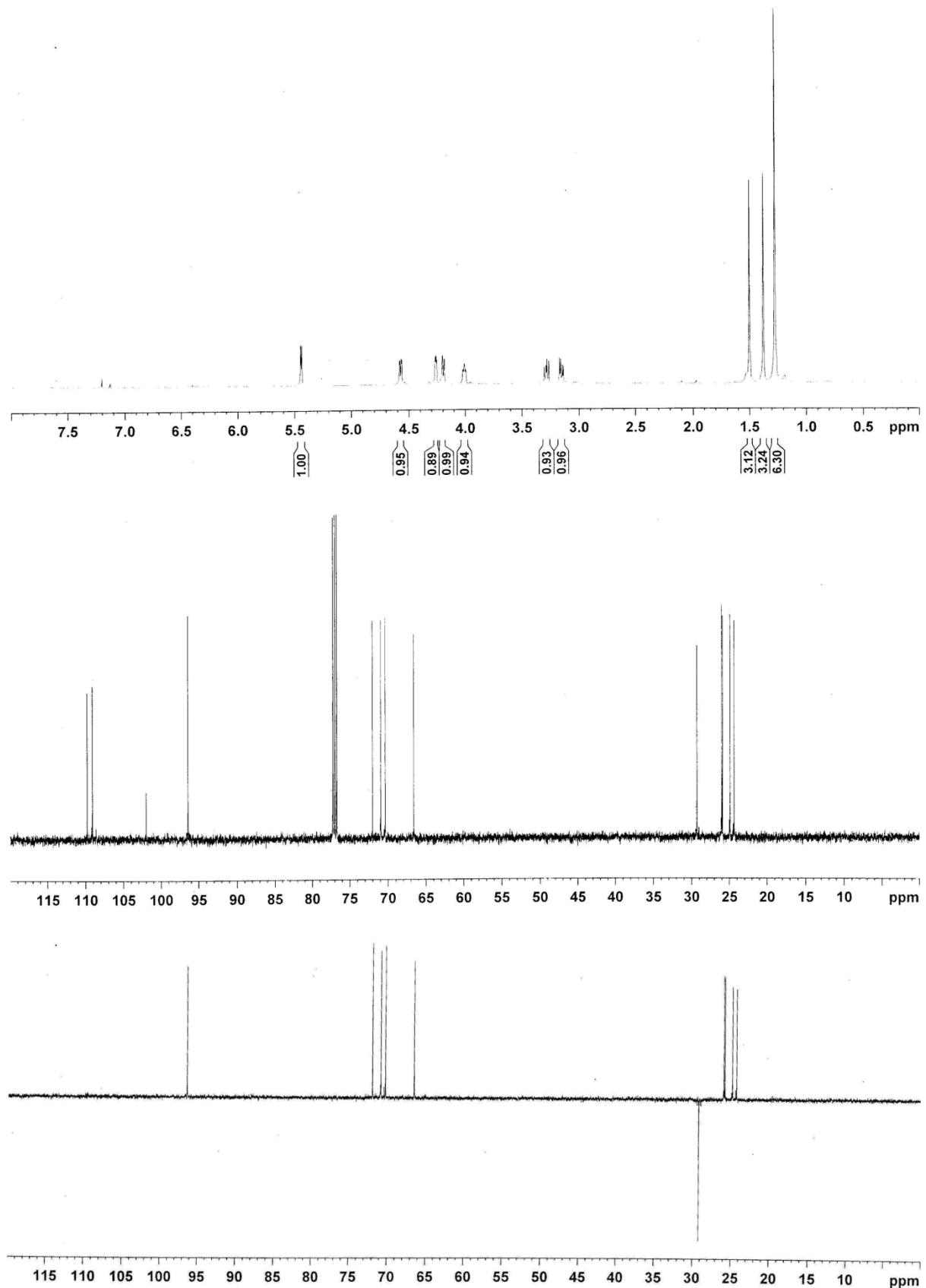
<sup>1</sup>H, <sup>13</sup>C and DEPT 135 NMR spectra of methyl 2,3,4-tri-O-benzyl-6-deoxy-6-selenocyanato- $\alpha$ -D-mannopyranoside (**10**) (500 MHz, CDCl<sub>3</sub>).



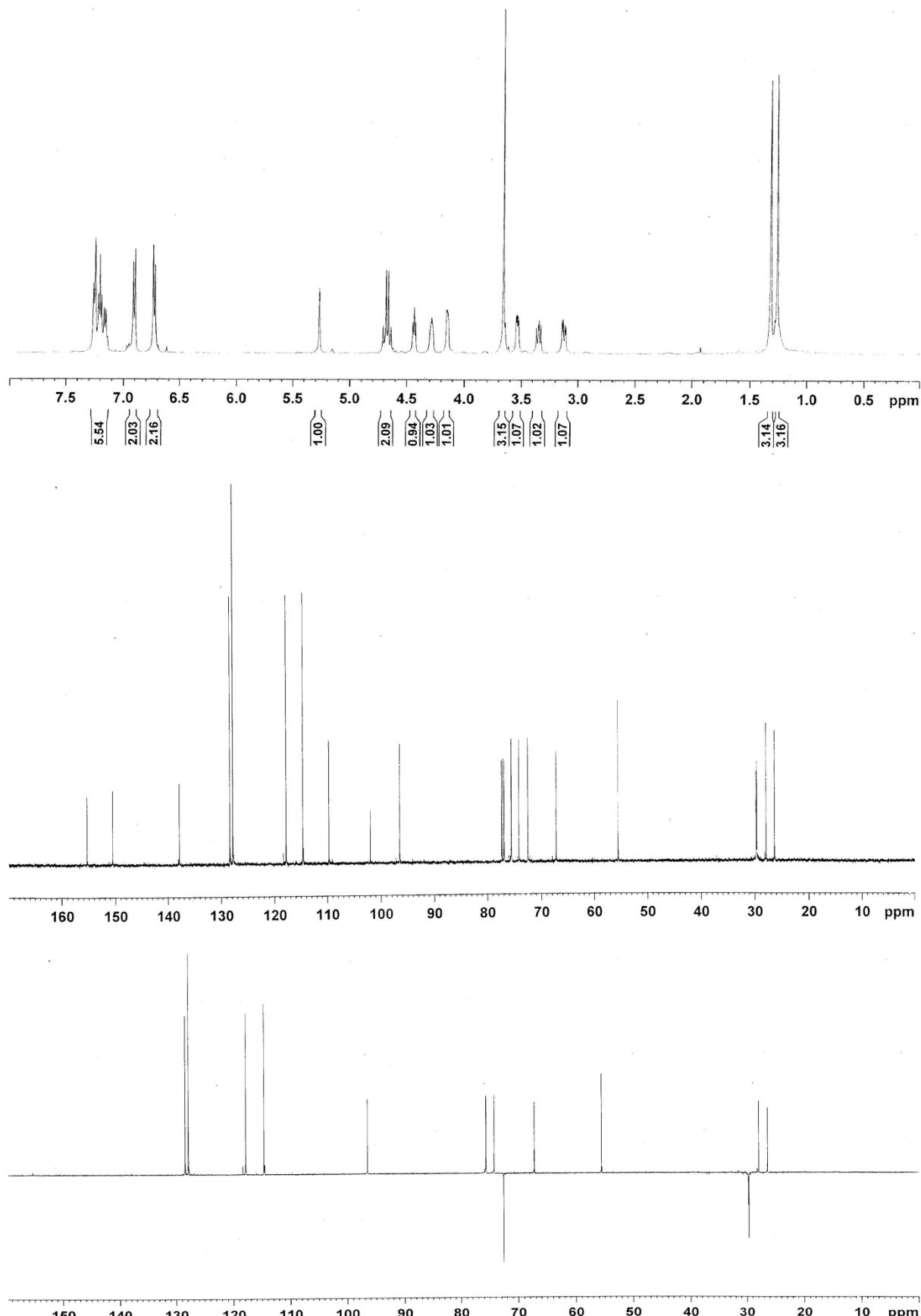
<sup>1</sup>H, <sup>13</sup>C and DEPT 135 NMR spectra of *p*-methoxyphenyl 2,3,6-tri-*O*-benzyl-4-deoxy-4-selenocyanato- $\beta$ -D-glucopyranoside (**11**) (500 MHz, CDCl<sub>3</sub>).



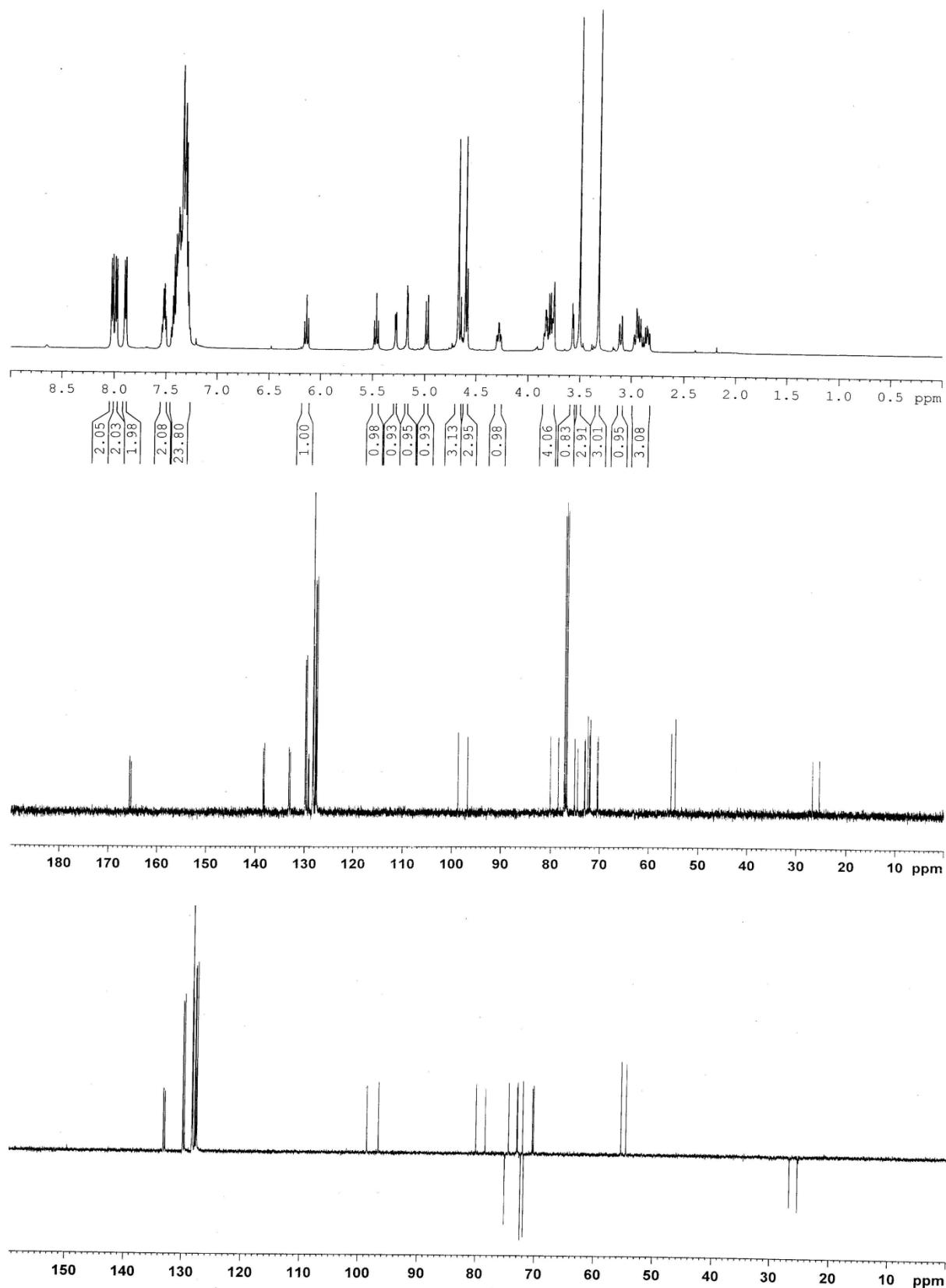
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of 2-azidoethyl 2,3,6-tri-*O*-benzyl-4-deoxy-4-selenocyanato- $\beta$ -D-galactopyranoside (**12**) (500 MHz,  $\text{CDCl}_3$ ).



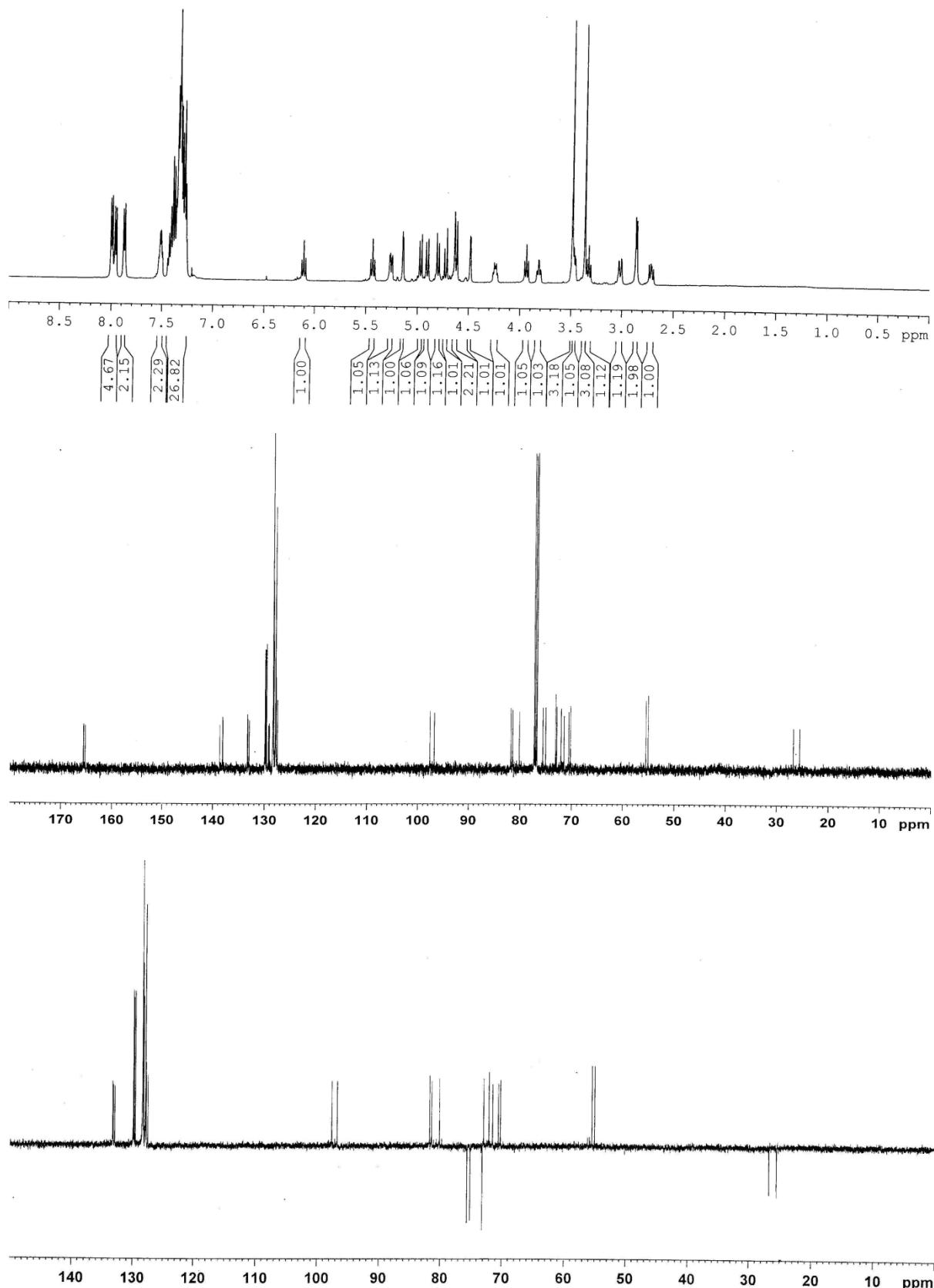
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of 1,2:3,4-di-*O*-isopropylidene-6-deoxy-6-selenocyanato- $\alpha$ -D-galactopyranose (**13**) (500 MHz,  $\text{CDCl}_3$ ).



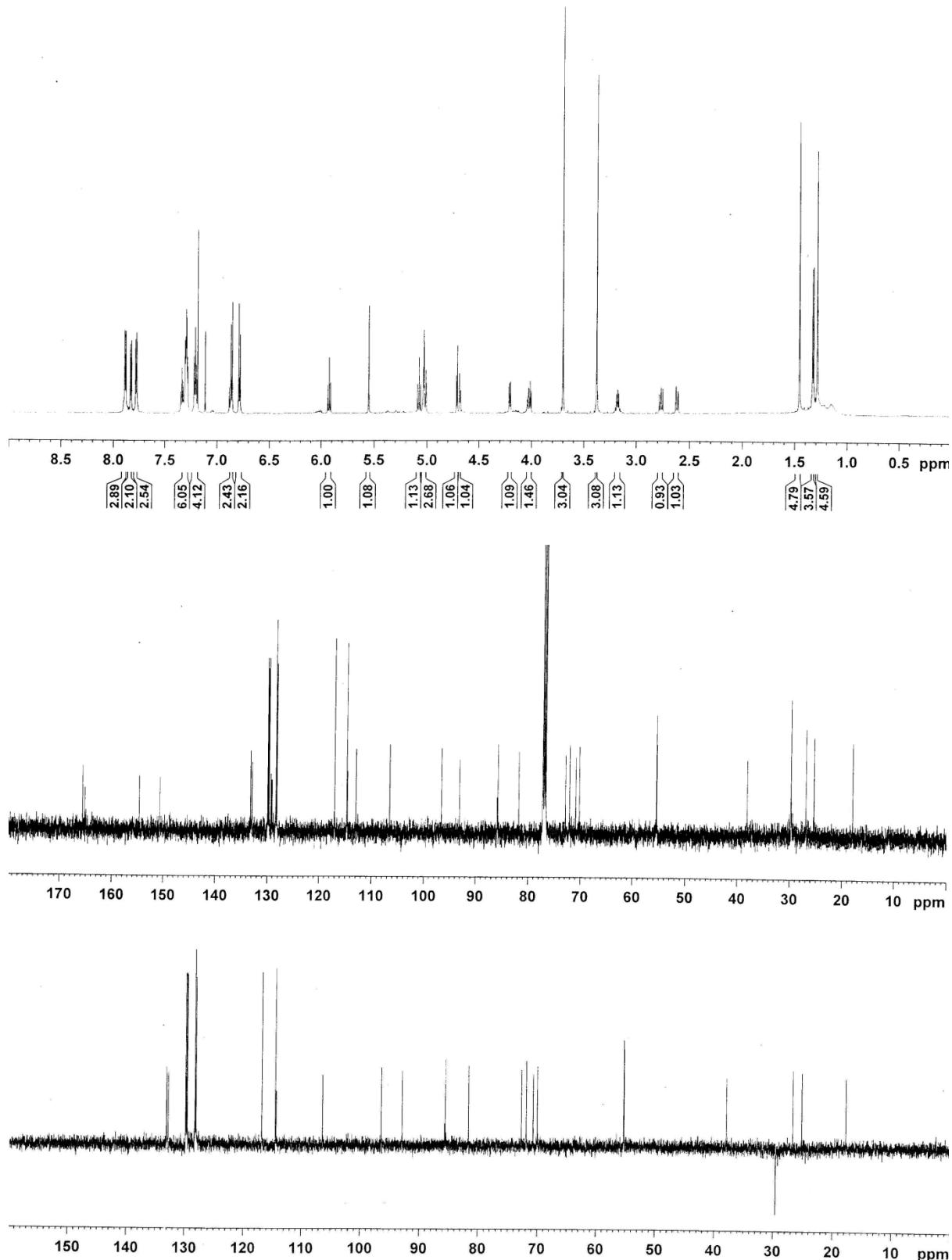
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of *p*-methoxyphenyl 2-*O*-benzyl-3,4-*O*-isopropylidene-6-deoxy-6-selenocyanato- $\alpha$ -D-galactopyranoside (**14**) (500 MHz,  $\text{CDCl}_3$ ).



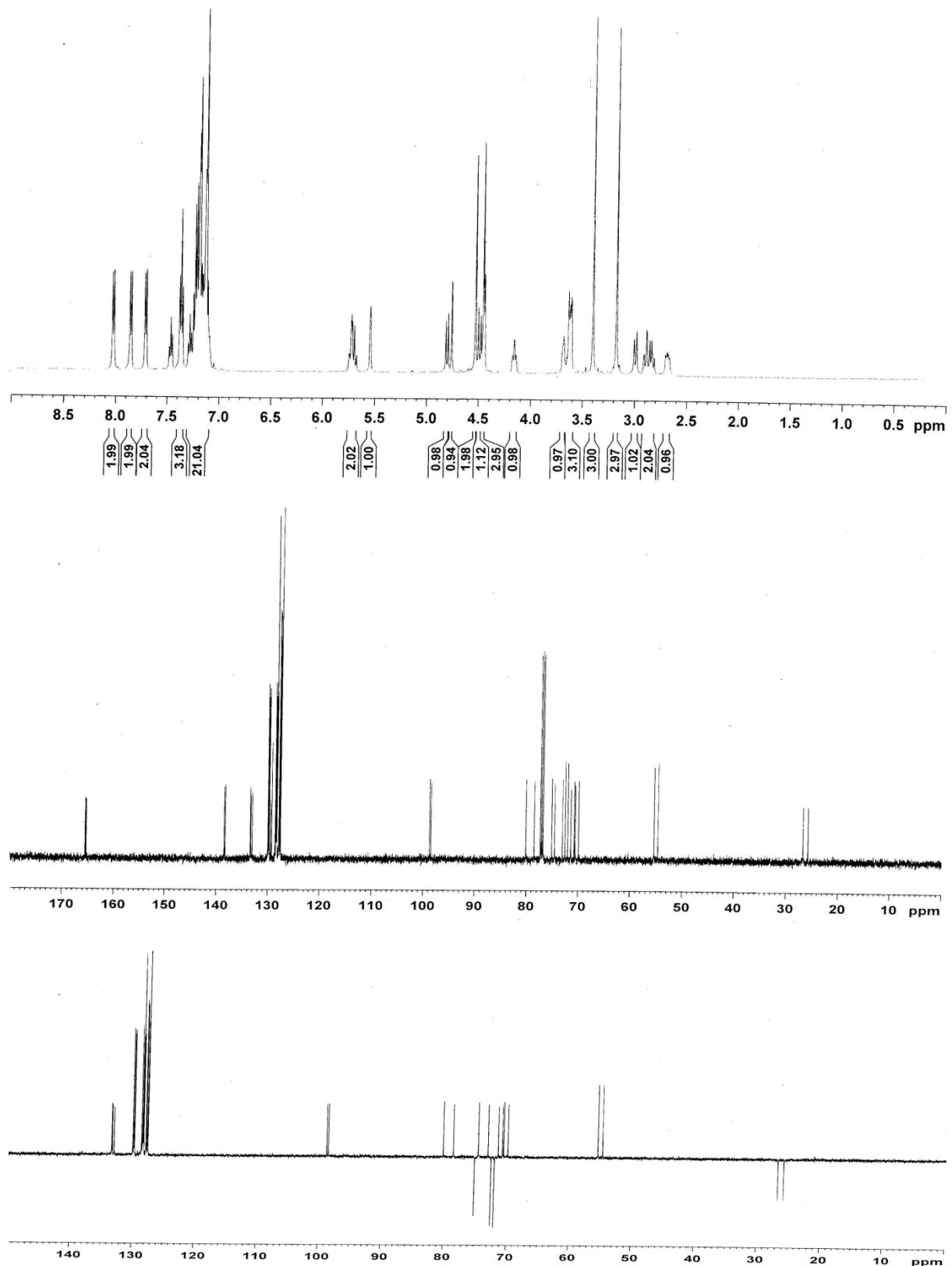
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzoyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl)-(methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl) selenide (**18**) (500 MHz,  $\text{CDCl}_3$ ).



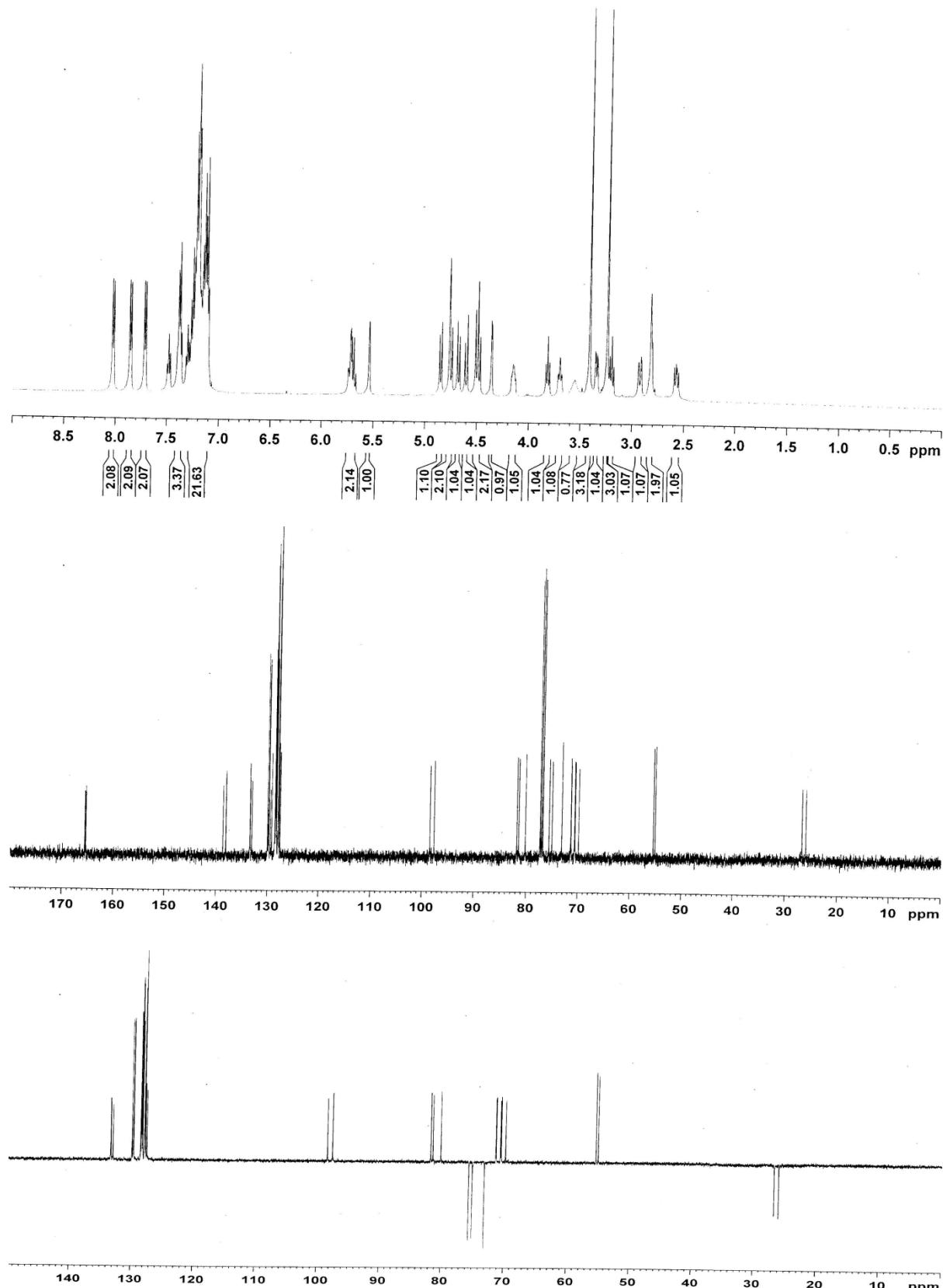
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzoyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl)-(methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl) selenide (**19**) (500 MHz,  $\text{CDCl}_3$ ).



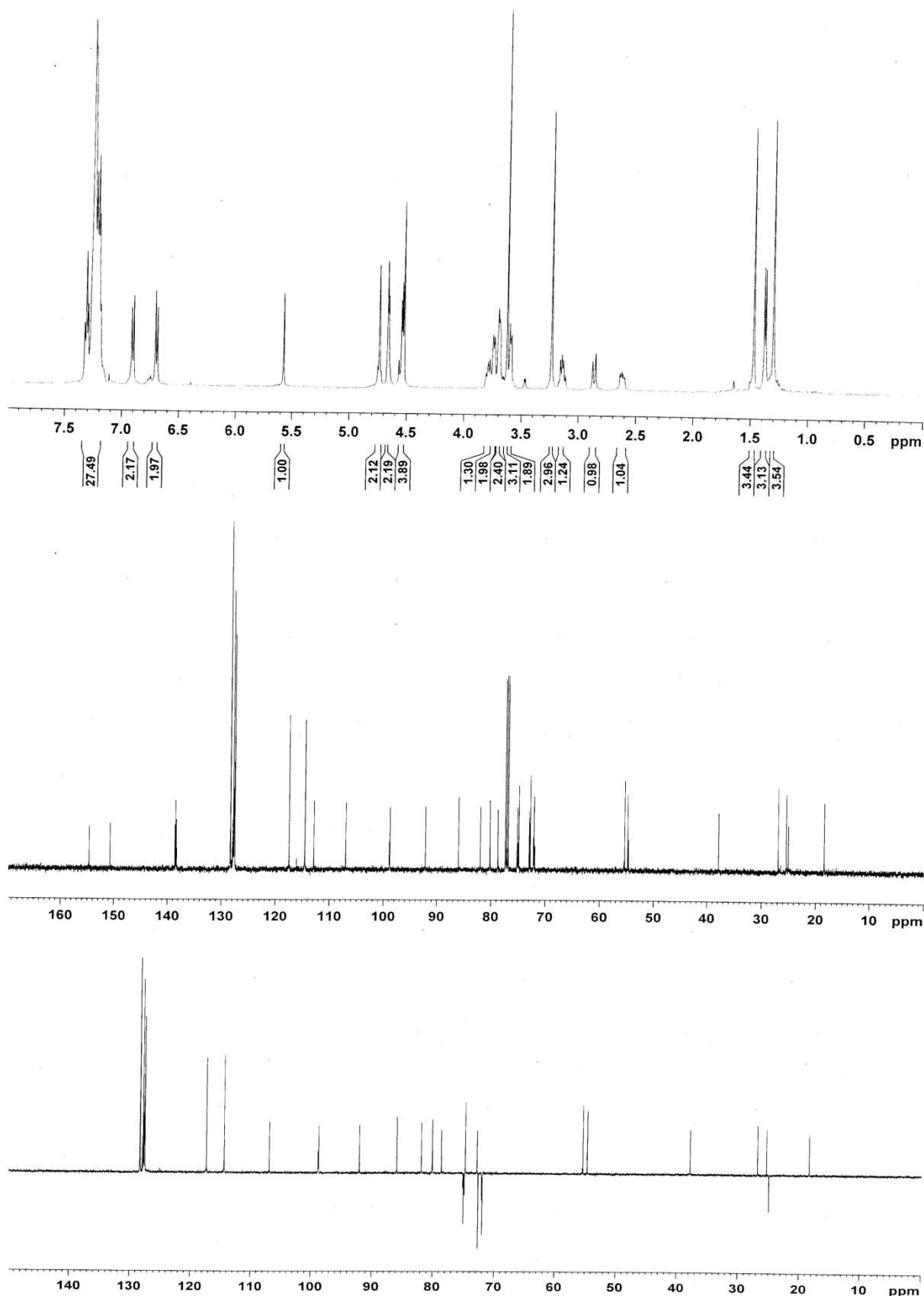
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzoyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl)-(p-methoxyphenyl 2,3-*O*-isopropylidene-4,6-di-deoxy- $\alpha$ -L-talopyranosid-4-yl) selenide (**20**) (500 MHz,  $\text{CDCl}_3$ ).



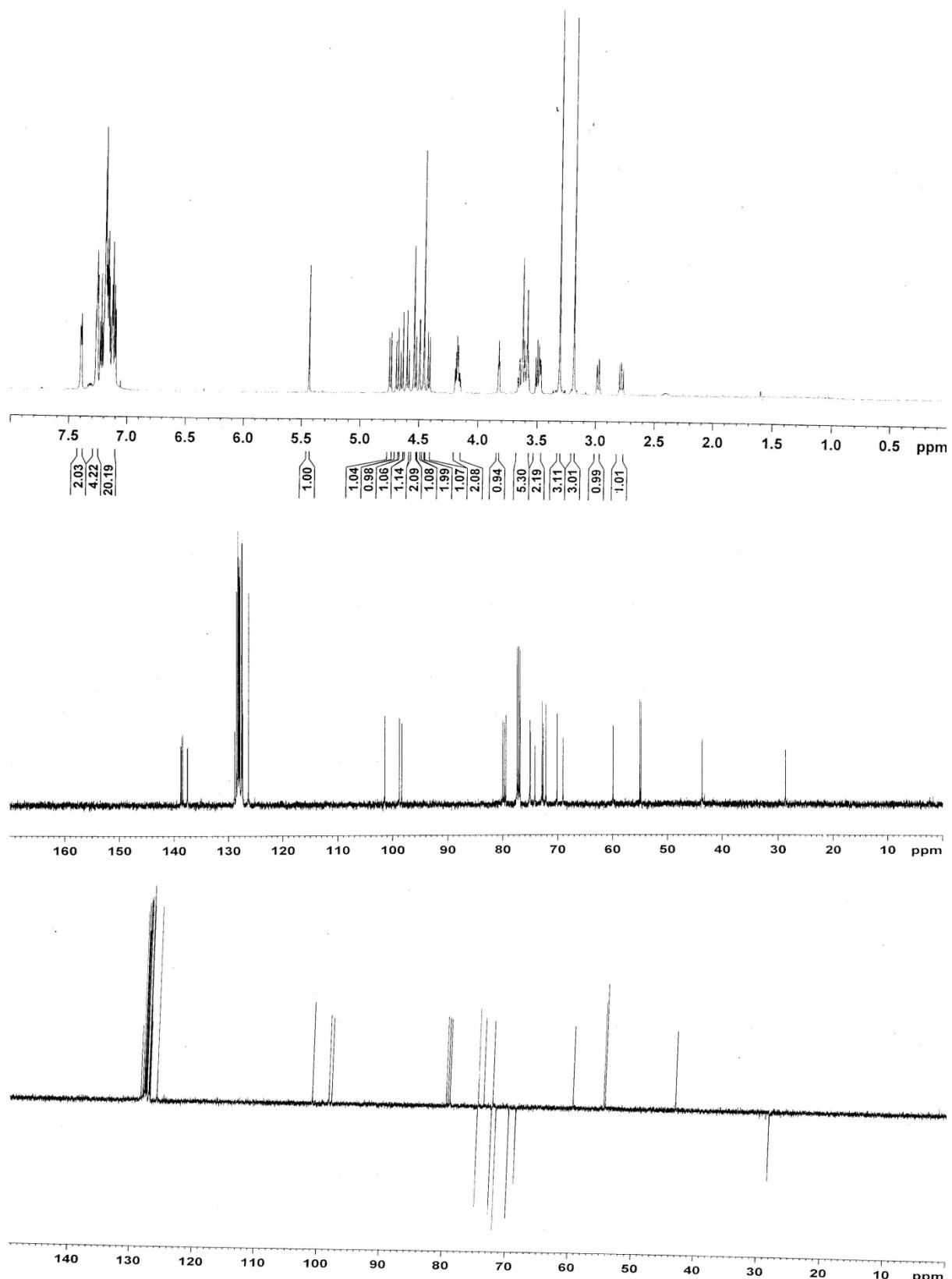
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl)-(methyl 2,3,4-tri-*O*-benzoyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl)selenide (**21**) (500 MHz,  $\text{CDCl}_3$ ).



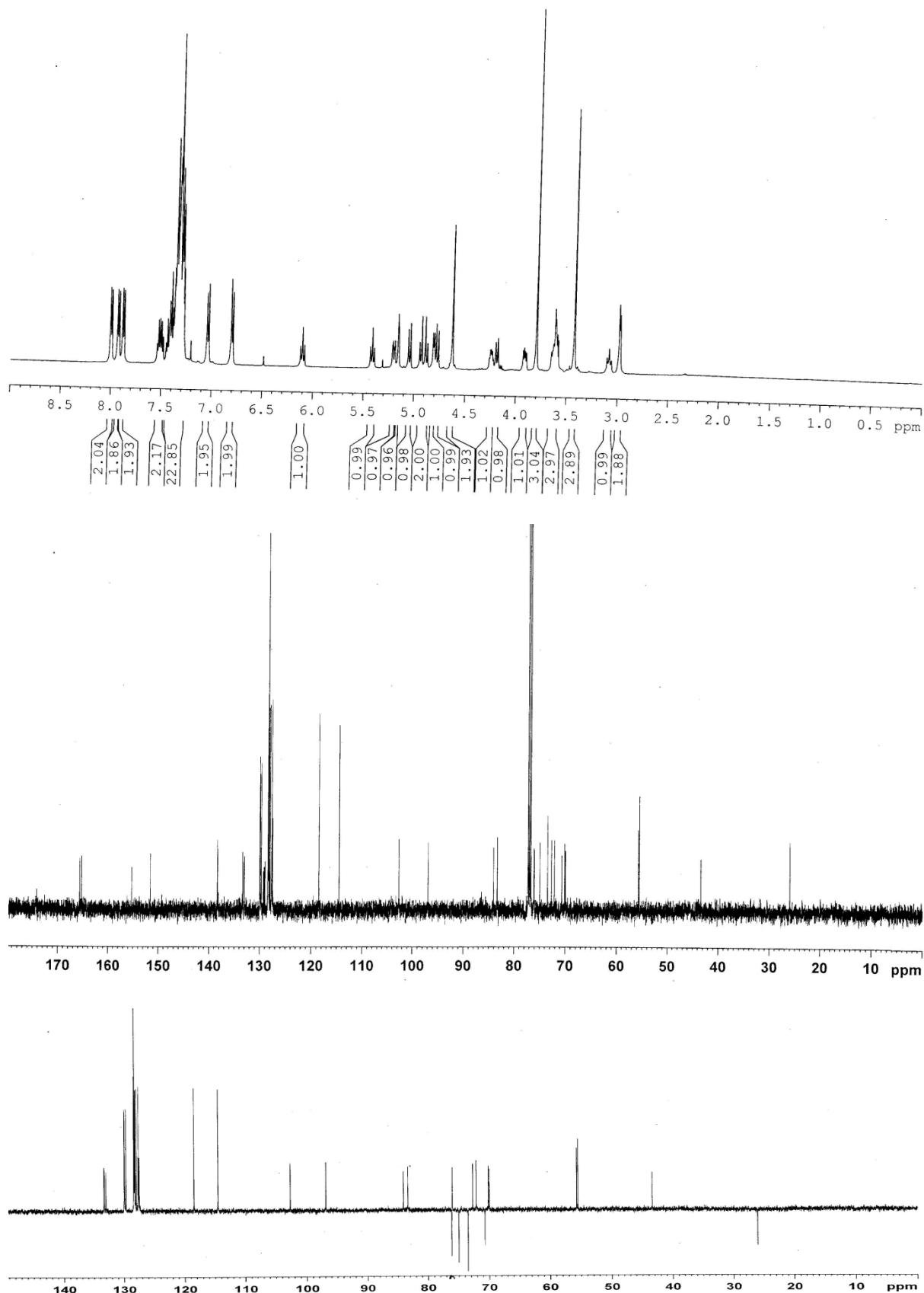
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl)-(methyl 2,3,4-tri-*O*-benzoyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl) selenide (**22**) (500 MHz,  $\text{CDCl}_3$ ).



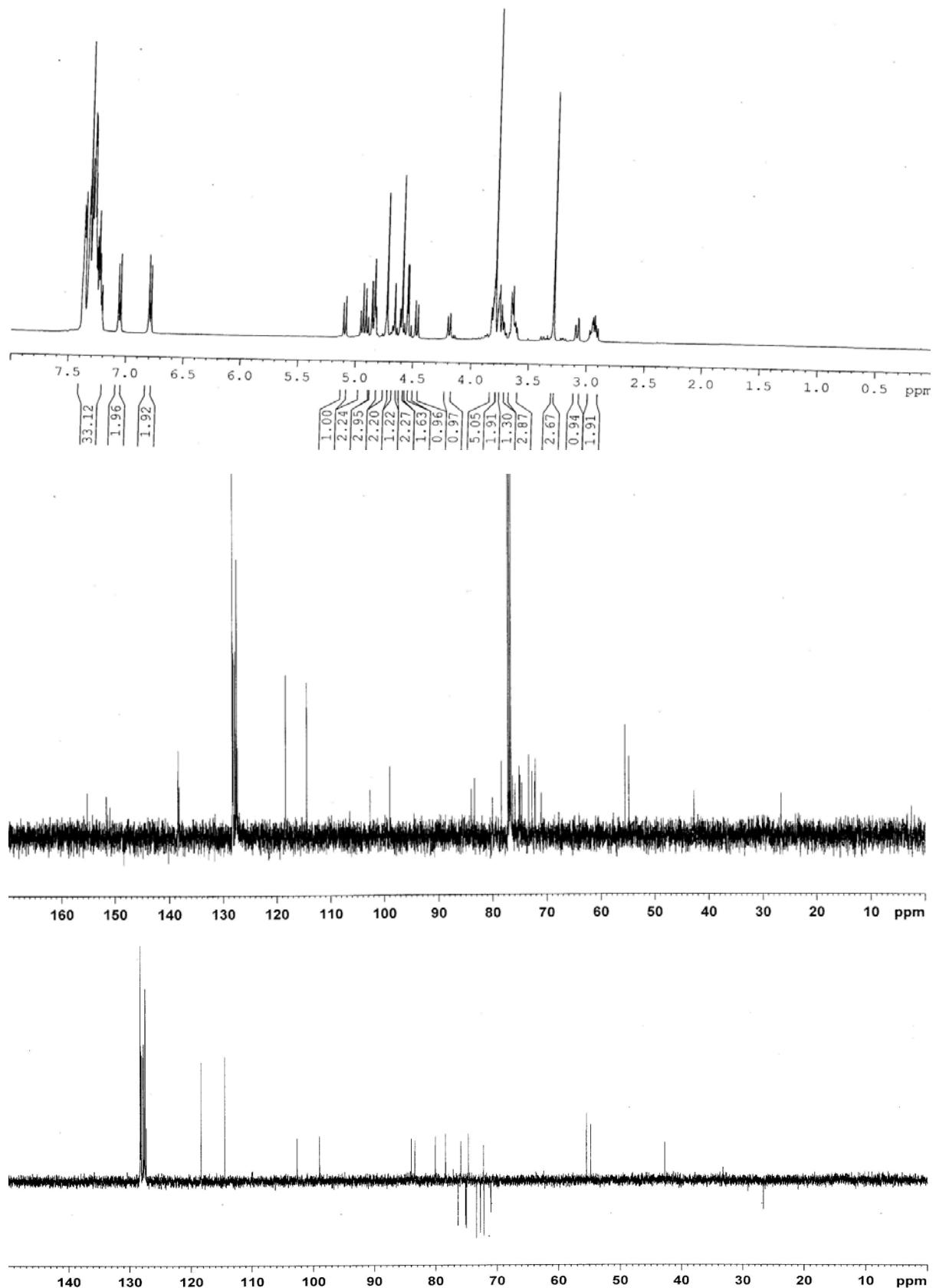
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl)-(p-methoxyphenyl 2,3-*O*-isopropylidene-4,6-di-deoxy- $\alpha$ -L-talopyranosid-4-yl) selenide (**23**) (500 MHz,  $\text{CDCl}_3$ ).



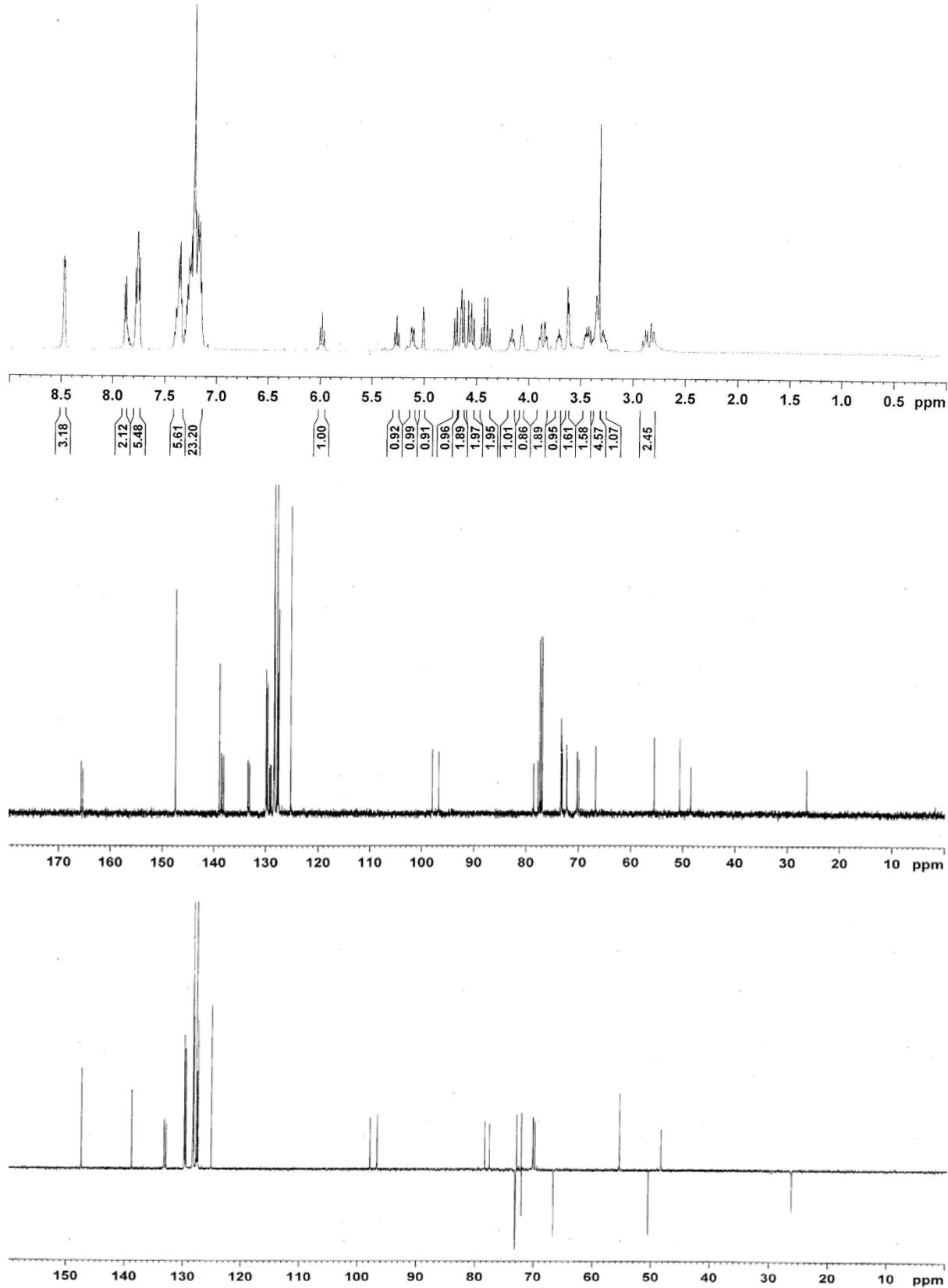
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl)-(methyl 2-*O*-benzyl-4,6-*O*-benzylidene-3-deoxy- $\alpha$ -D-allopyranosid-3-yl) selenide (**24**) (500 MHz,  $\text{CDCl}_3$ ).



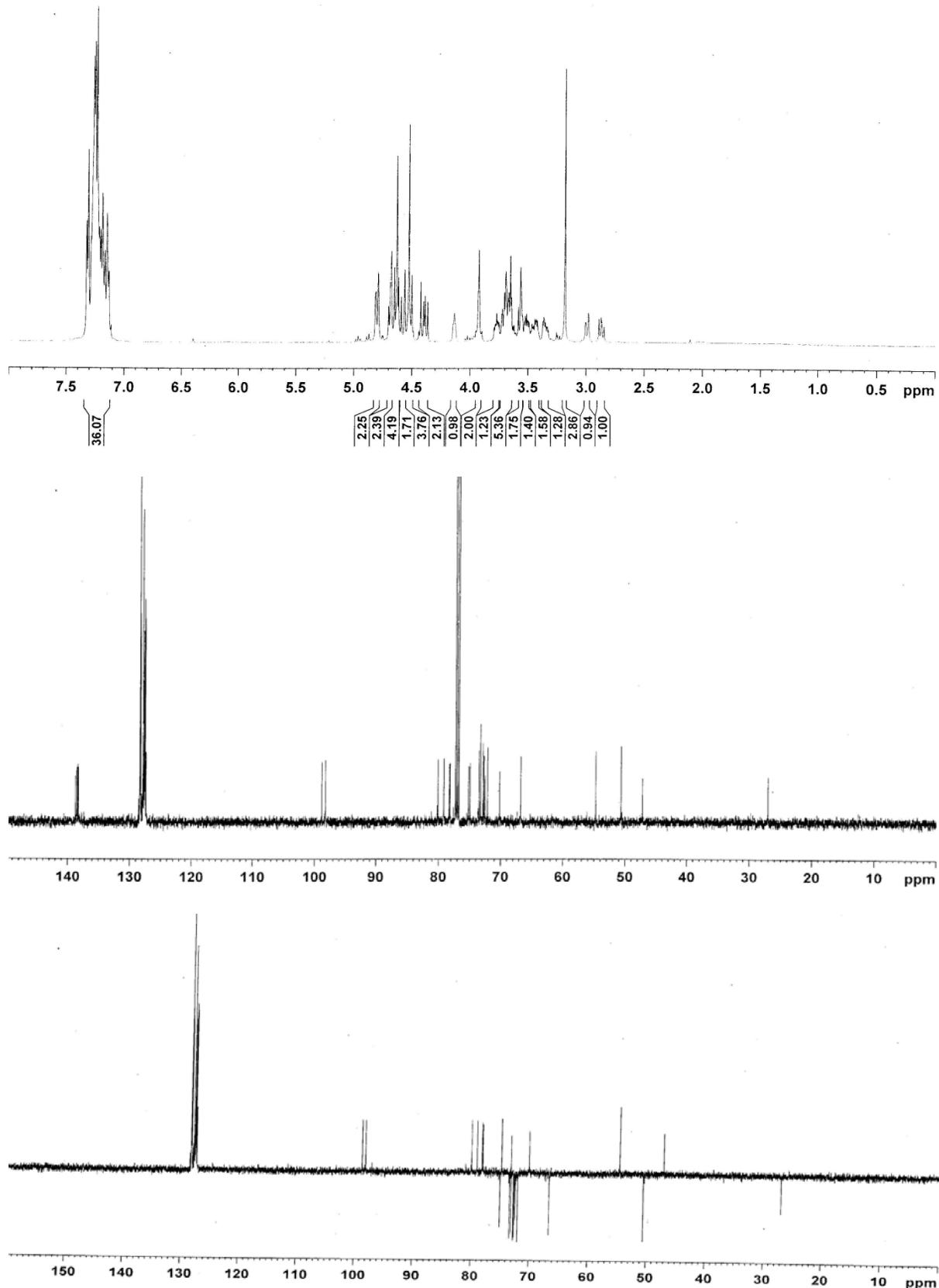
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzoyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl)-(p-methoxyphenyl 2,3,6-tri-*O*-benzyl-4-deoxy- $\beta$ -D-glucopyranosid-4-yl) selenide (**25**) (500 MHz,  $\text{CDCl}_3$ ).



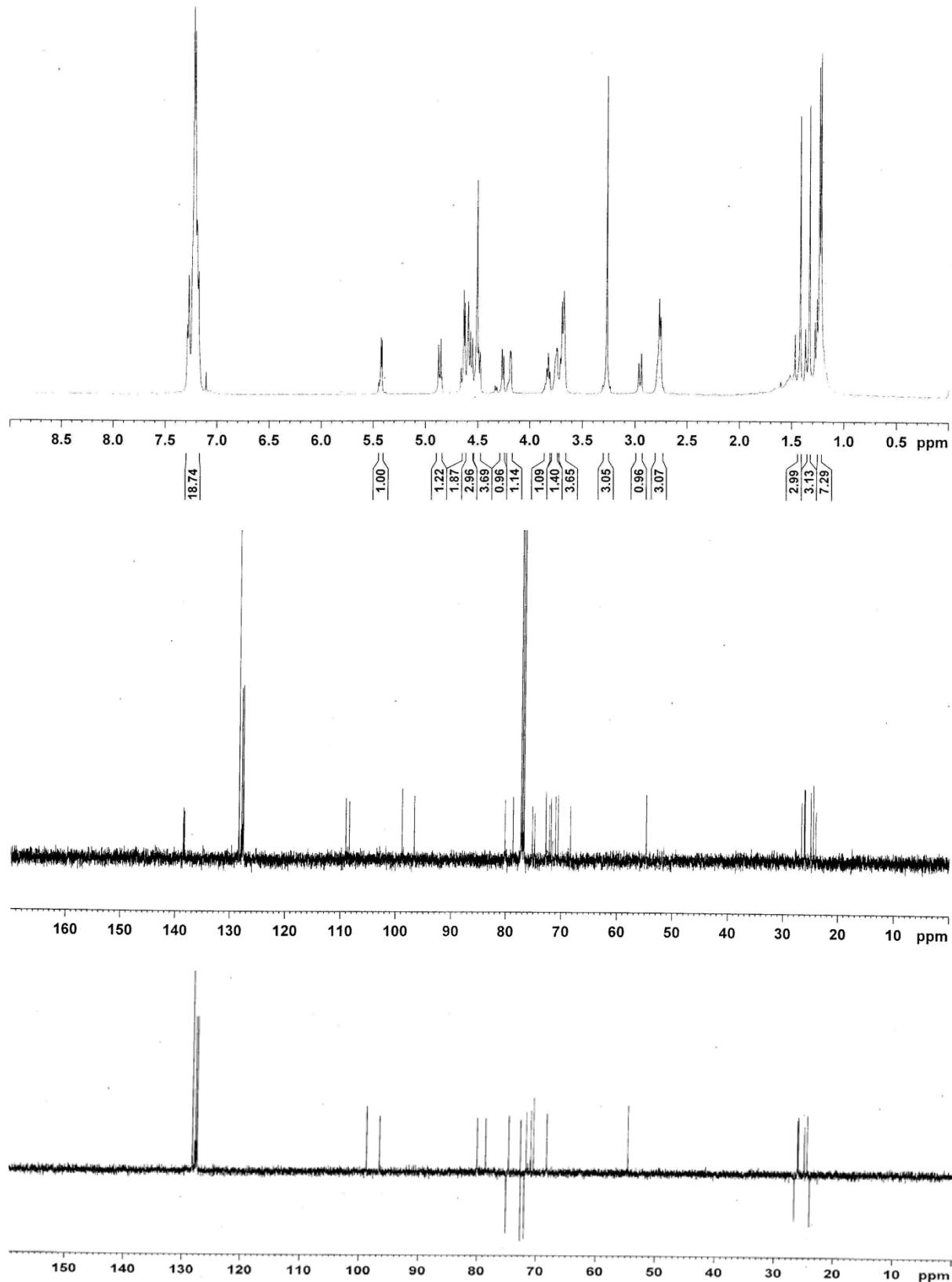
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl)-(p-methoxyphenyl 2,3,6-tri-*O*-benzyl-4-deoxy- $\beta$ -D-glucopyranosid-4-yl) selenide (**26**) (500 MHz,  $\text{CDCl}_3$ ).



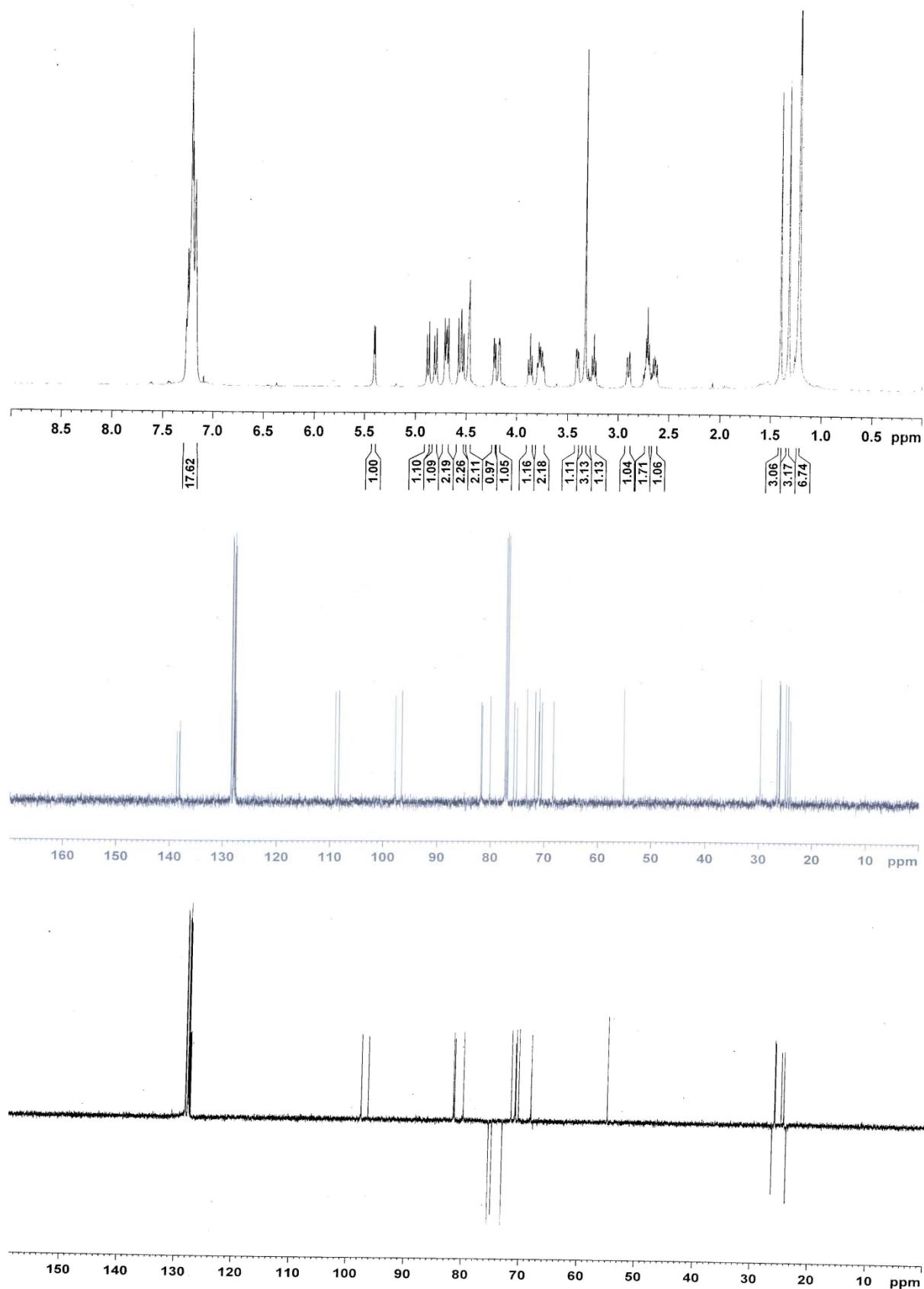
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzoyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl)-(2-azidoethyl 2,3,6-tri-*O*-benzyl-4-deoxy- $\alpha$ -D-galactopyranosid-4-yl)selenide (**27**) (500 MHz,  $\text{CDCl}_3$ ).



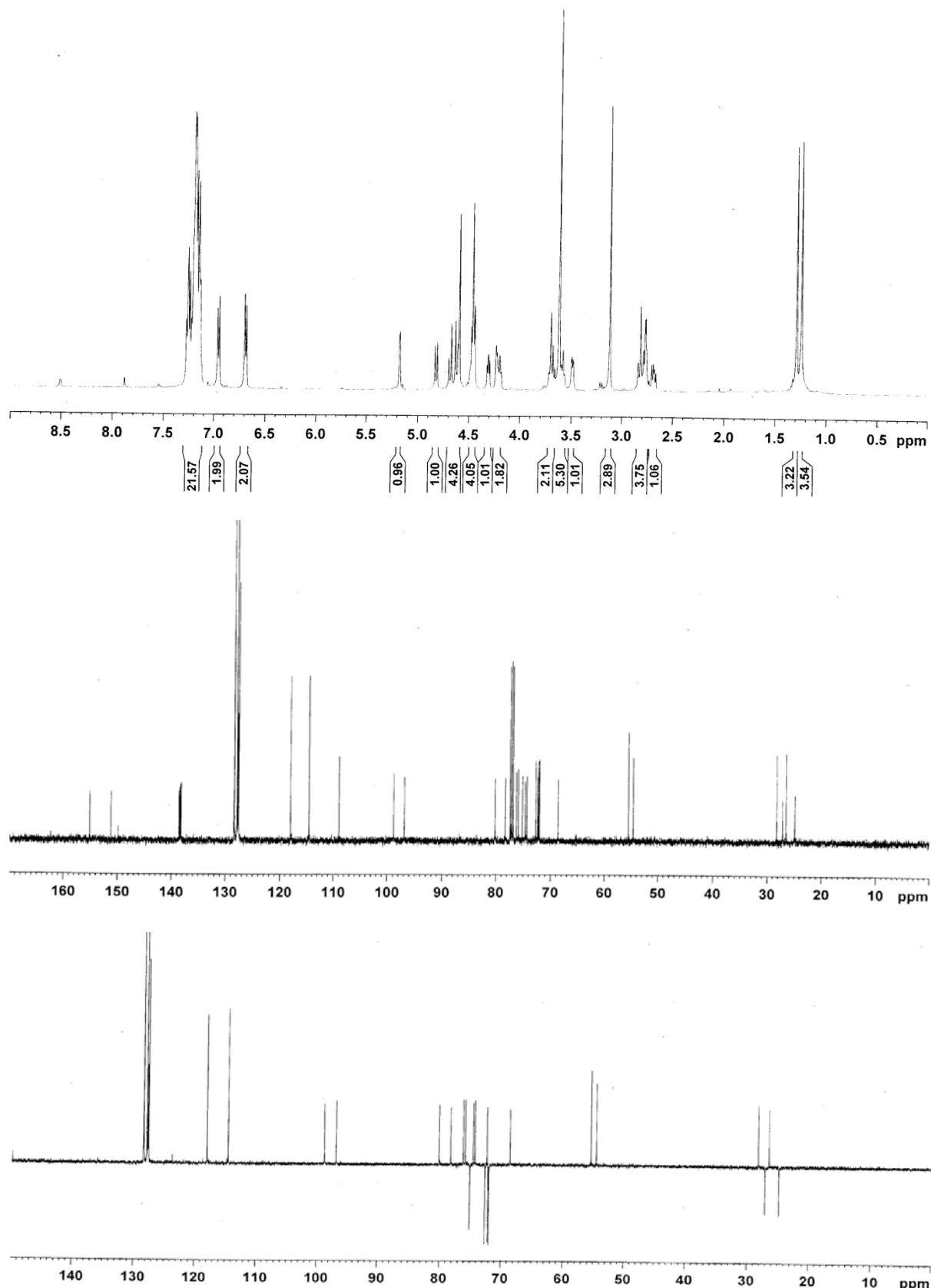
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl)-(2-azidoethyl 2,3,6-tri-*O*-benzyl-4-deoxy- $\alpha$ -D-galactopyranosid-4-yl)selenide (**28**) (500 MHz,  $\text{CDCl}_3$ ).



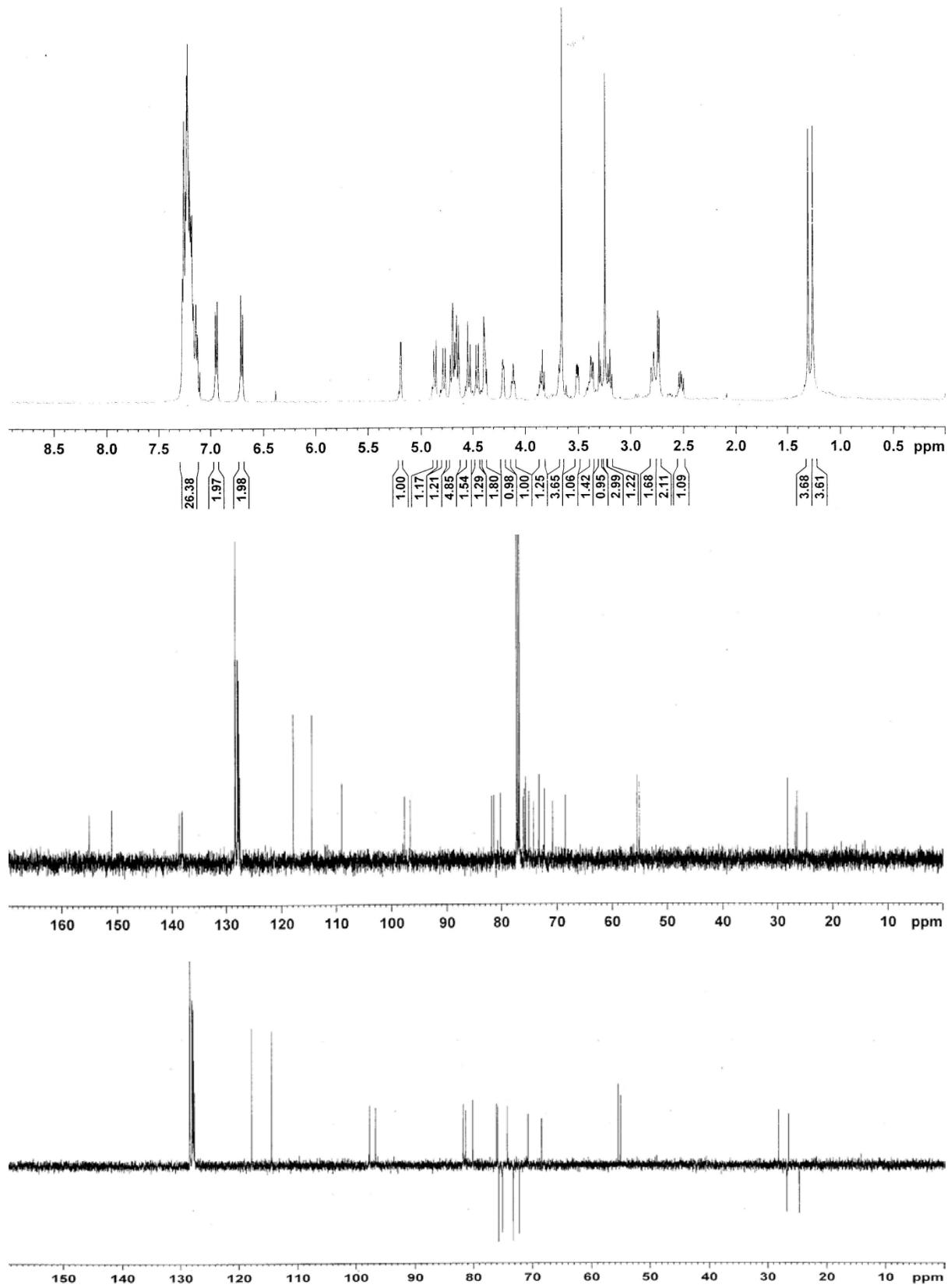
$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (1,2:3,4-di-O-isopropylidene-6-deoxy- $\alpha$ -D-galactopyranosid-6-yl)-(methyl 2,3,4-tri- $O$ -benzyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl)selenide (**29**) (500 MHz,  $\text{CDCl}_3$ ).



$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (1,2:3,4-di-*O*-isopropylidene-6-deoxy- $\alpha$ -D-galactopyranosid-6-yl)-(methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl) selenide (**30**) (500 MHz,  $\text{CDCl}_3$ ).



$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (*p*-methoxyphenyl 2-*O*-benzyl-3,4-*O*-isopropylidene-6-deoxy- $\alpha$ -D-galactopyranosid-6-yl)-(methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-mannopyranosid-6-yl) selenide (**31**) (500 MHz,  $\text{CDCl}_3$ ).



$^1\text{H}$ ,  $^{13}\text{C}$  and DEPT 135 NMR spectra of (*p*-methoxyphenyl 2-*O*-benzyl-3,4-*O*-isopropylidene-6-deoxy- $\alpha$ -D-galactopyranosid-6-yl)-(methyl 2,3,4-tri-*O*-benzyl-6-deoxy- $\alpha$ -D-glucopyranosid-6-yl) selenide (**32**) (500 MHz,  $\text{CDCl}_3$ ).