

SUPPORTING INFORMATION

Synthesis of lactones of *ortho*-tyrosine, DOPA isomers and tryptophan-*ortho*-tyrosine hybrid amino acids

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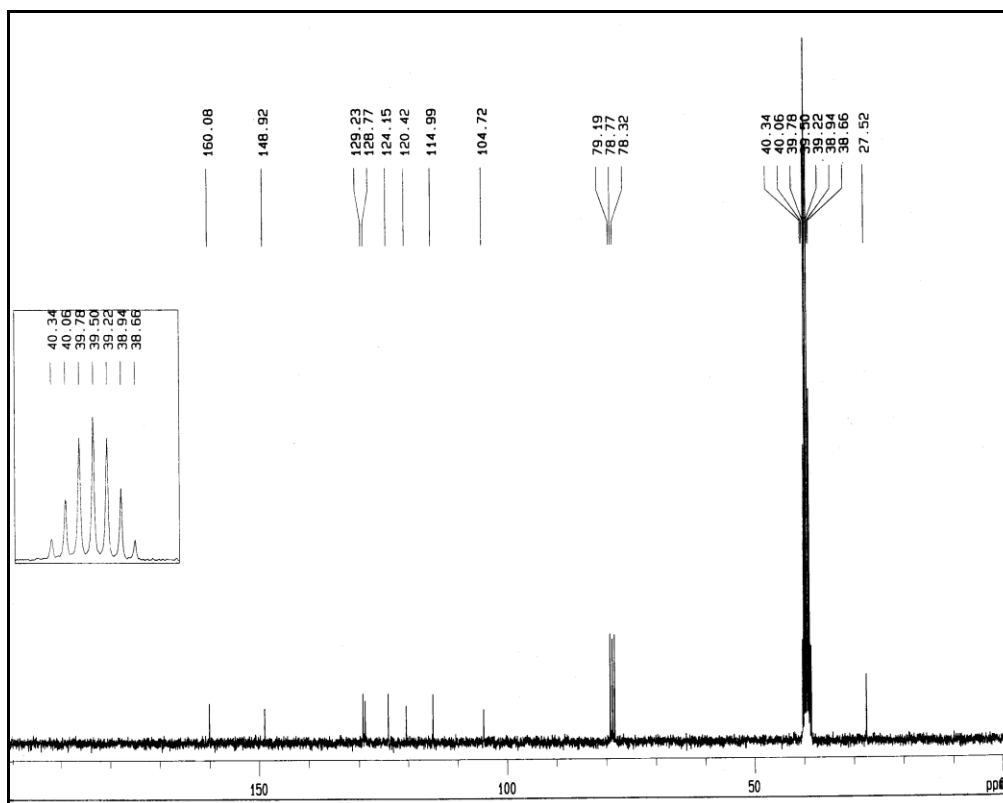
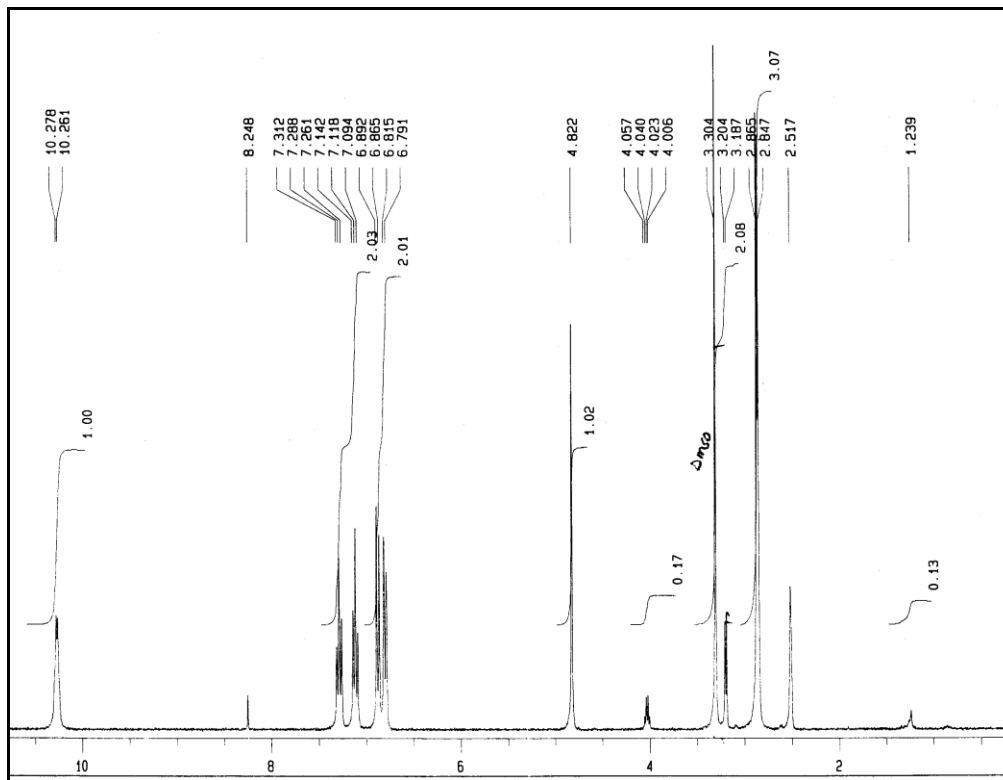
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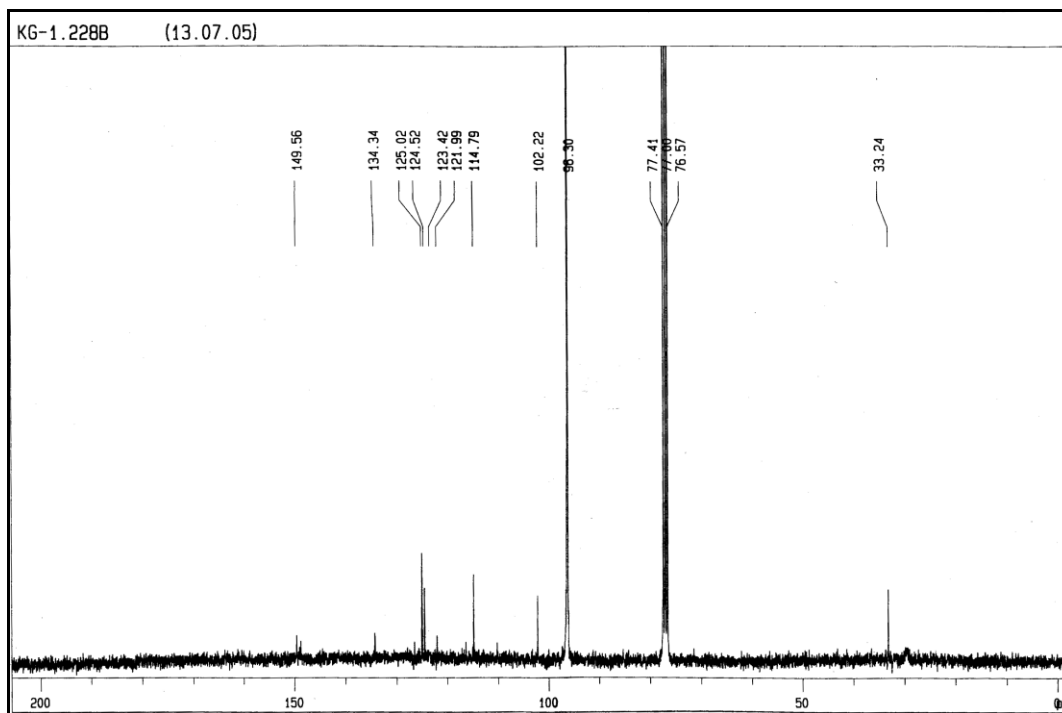
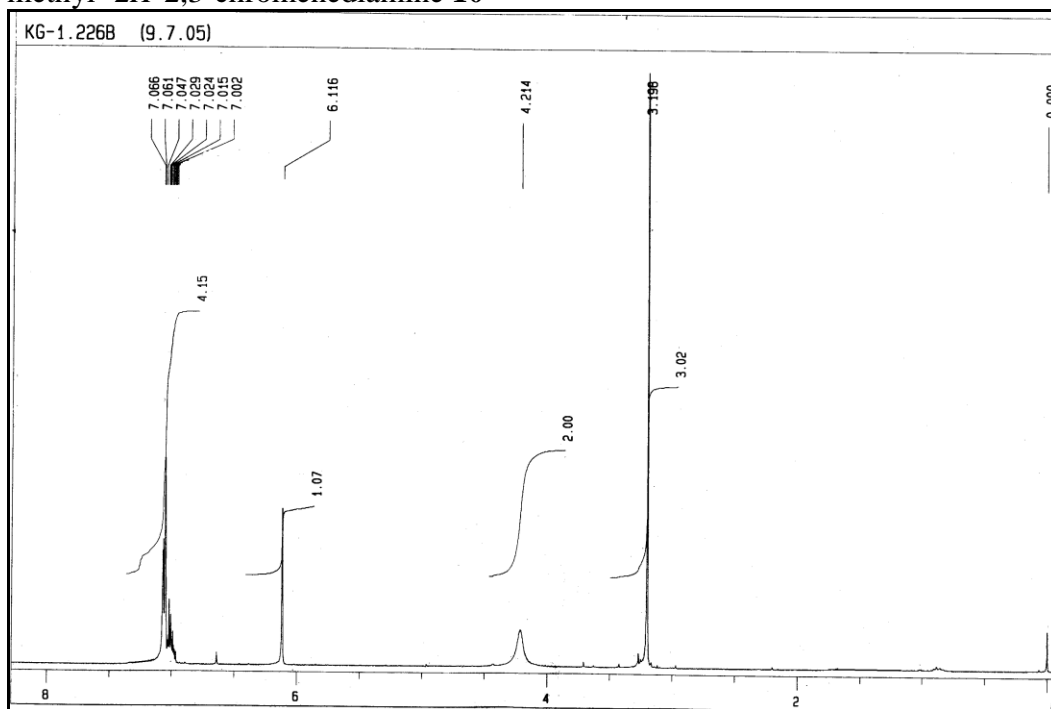
¹ H (300 MHz, DMSO-D ₆ :CDCl ₃ , 1:9) and ¹³ C (75 MHz, DMSO-D ₆ :CDCl ₃ , 1:9) NMR of <i>N</i> 2-methyl-4-[2-(methylamino)-3-nitro-4 <i>H</i> -4-chromenyl]-3-nitro-4 <i>H</i> -2-chromenamine 9	S-3
¹ H (300 MHz, CCl ₄ :CDCl ₃ , 1:1) and ¹³ C (75 MHz, CCl ₄ :CDCl ₃ , 1:1) NMR of <i>N</i> 2-methyl-2 <i>H</i> -2,3-chromenediamine 10	S-4
¹ H (300 MHz, CCl ₄ :CDCl ₃ , 1:1) and ¹³ C (75 MHz, CCl ₄ :CDCl ₃ , 1:1) NMR of <i>N</i> -methyl- <i>N</i> -(3-nitro-4 <i>H</i> -2-chromenyl)amine 12a	S-5
¹ H (300 MHz, CDCl ₃) and ¹³ C (75 MHz, CDCl ₃) NMR of <i>N</i> -(5-methoxy-3-nitro-4 <i>H</i> -2-chromenyl)- <i>N</i> -methylamine 12b	S-6
¹ H (300 MHz, CDCl ₃) and ¹³ C (75 MHz, CDCl ₃) NMR of <i>N</i> -(6-methoxy-3-nitro-4 <i>H</i> -2-chromenyl)- <i>N</i> -methylamine 12c	S-7
¹ H (300 MHz, CDCl ₃) and ¹³ C (75 MHz, CDCl ₃) NMR of <i>N</i> -[7-(benzyloxy)-3-nitro-4 <i>H</i> -2-chromenyl]- <i>N</i> -methylamine 12d	S-8
¹ H (300 MHz, CDCl ₃ :DMSO-D ₆ , 9:1) NMR of <i>N</i> -(8-methoxy-3-nitro-4 <i>H</i> -2-chromenyl)- <i>N</i> -methylamine 12e	S-9
¹ H (300 MHz, CDCl ₃) and ¹³ C (75 MHz, CDCl ₃) NMR of <i>N</i> 1-(2-oxo-3,4-dihydro-2 <i>H</i> -3-chromenyl)acetamide 13a	S-10
¹ H (300 MHz, CDCl ₃) and ¹³ C (75 MHz, CDCl ₃) NMR of <i>N</i> 1-(5-methoxy-2-oxo-3,4-dihydro-2 <i>H</i> -3-chromenyl)acetamide 13b	S-11
¹ H (300 MHz, CDCl ₃) and ¹³ C (75 MHz, CDCl ₃) NMR of <i>N</i> 1-(6-methoxy-2-oxo-3,4-dihydro-2 <i>H</i> -3-chromenyl)acetamide 13c	S-12
¹ H (300 MHz, CDCl ₃) and ¹³ C (75 MHz, CDCl ₃) NMR of <i>N</i> 1-[7-(benzyloxy)-2-oxo-3,4-dihydro-2 <i>H</i> -3-chromenyl]acetamide 13d	S-13

^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of <i>N</i> 1-(8-methoxy-2-oxo-3,4-dihydro-2 <i>H</i> -3-chromenyl)acetamide 13e	S-14
^1H (300 MHz, CDCl_3 :DMSO- D_6 , 5:1) and ^{13}C (CDCl_3 :DMSO- D_6 , 5:1) NMR of <i>N</i> 2-methyl-4-[4-(dimethylamino)phenyl]-3-nitro-4 <i>H</i> -2-chromenamine 15	S-15
^1H (400 MHz, DMSO- D_6) and ^{13}C (100 MHz, DMSO- D_6) NMR of <i>N</i> -[4-(1 <i>H</i> -3-indolyl)-3-nitro-4 <i>H</i> -2-chromenyl]- <i>N</i> -methylamine 16	S-16
^1H (400 MHz, CCl_4 : CDCl_3 , 1:1) and ^{13}C (100 MHz, CCl_4 : CDCl_3 , 1:1) and ^{13}C NMR of <i>N</i> -Methyl- <i>N</i> -[3-nitro-4-(1 <i>H</i> -2-pyrrolyl)-4 <i>H</i> -2-chromenyl]amine 17	S-17
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of <i>N</i> 1-[4-(1 <i>H</i> -3-Indolyl)-2-oxo-3,4-dihydro-2 <i>H</i> -3-chromenyl]acetamide 18	S-18
^1H (300 MHz, CDCl_3 + DMSO- D_6 , 9:1) and ^{13}C (75 MHz, CDCl_3 + DMSO- D_6 , 9:1) NMR of 3-amino-4-(1 <i>H</i> -3-indolyl)-2 <i>H</i> -2-chromenone 19	S-19

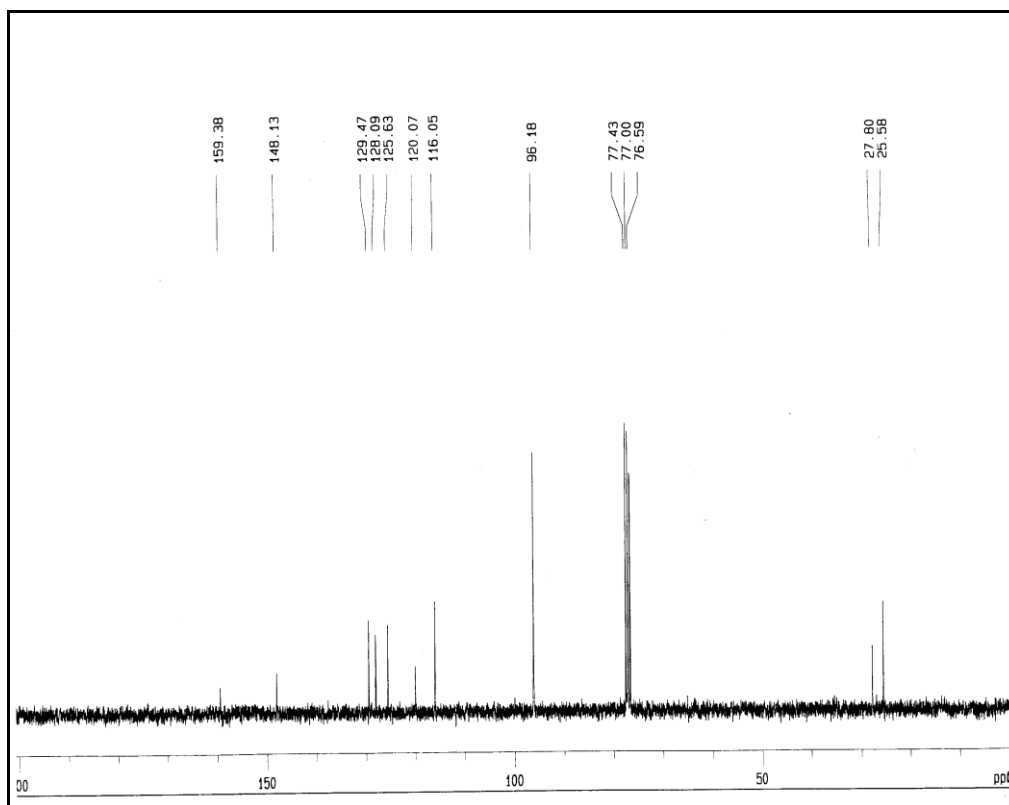
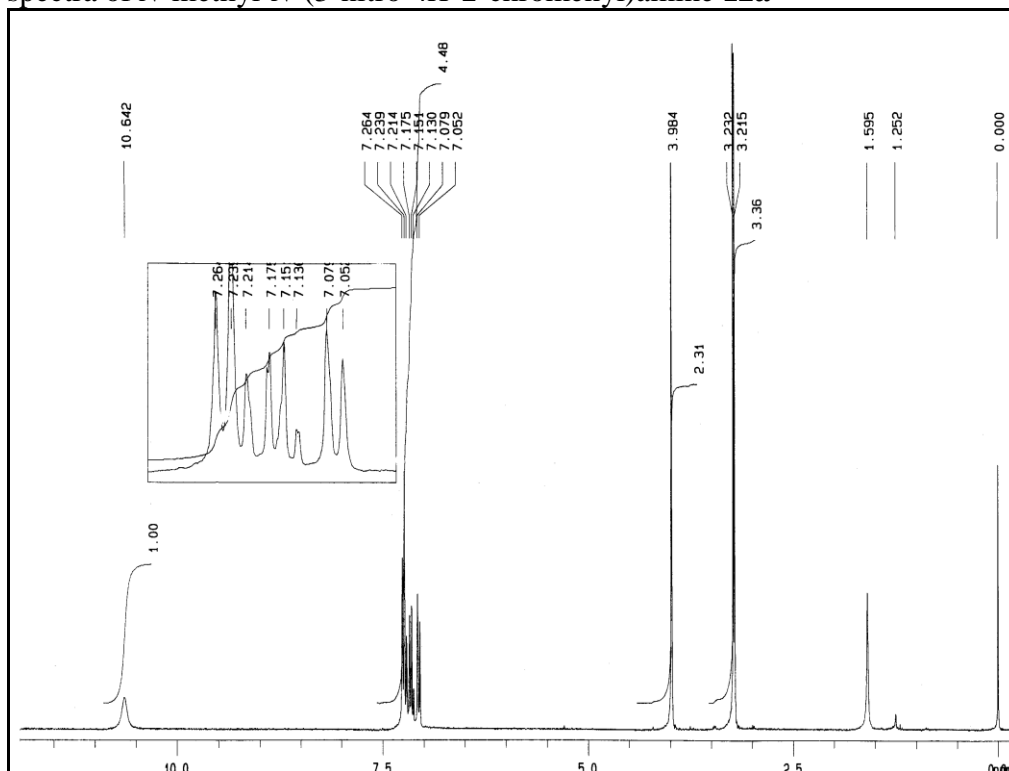
^1H (300 MHz, $\text{DMSO-}D_6$: CDCl_3 , 1:9) and ^{13}C (75 MHz, $\text{DMSO-}D_6$: CDCl_3 , 1:9) NMR spectra of *N*2-methyl-4-[2-(methylamino)-3-nitro-4*H*-4-chromenyl]-3-nitro-4*H*-2-chromenamine **9**



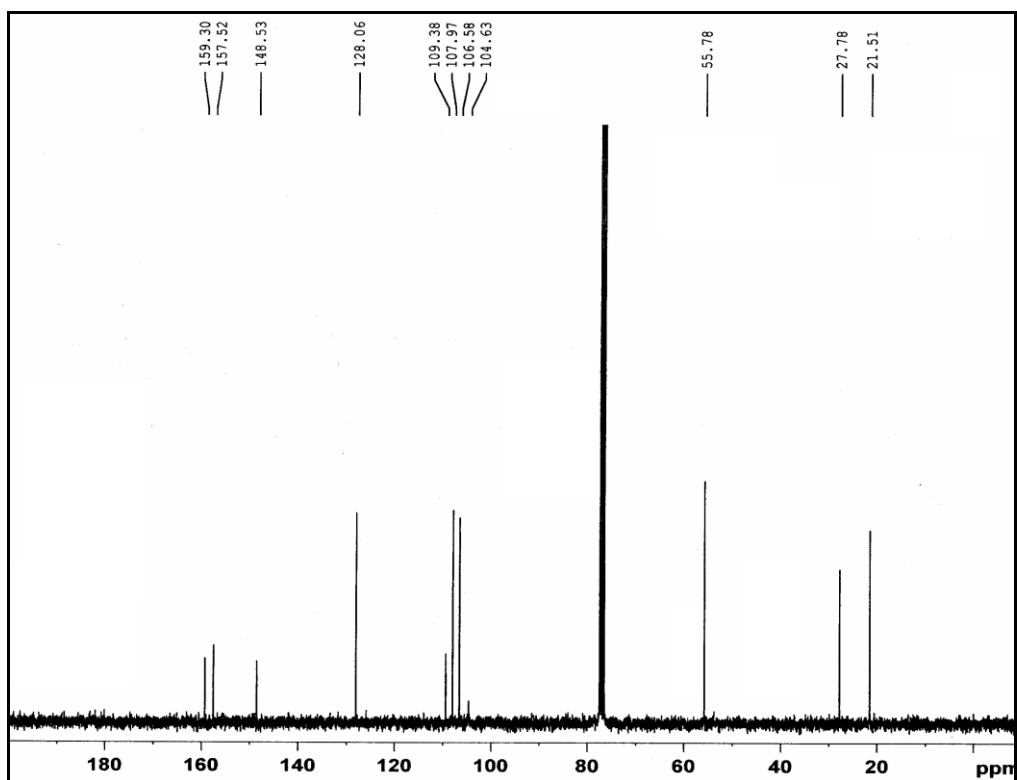
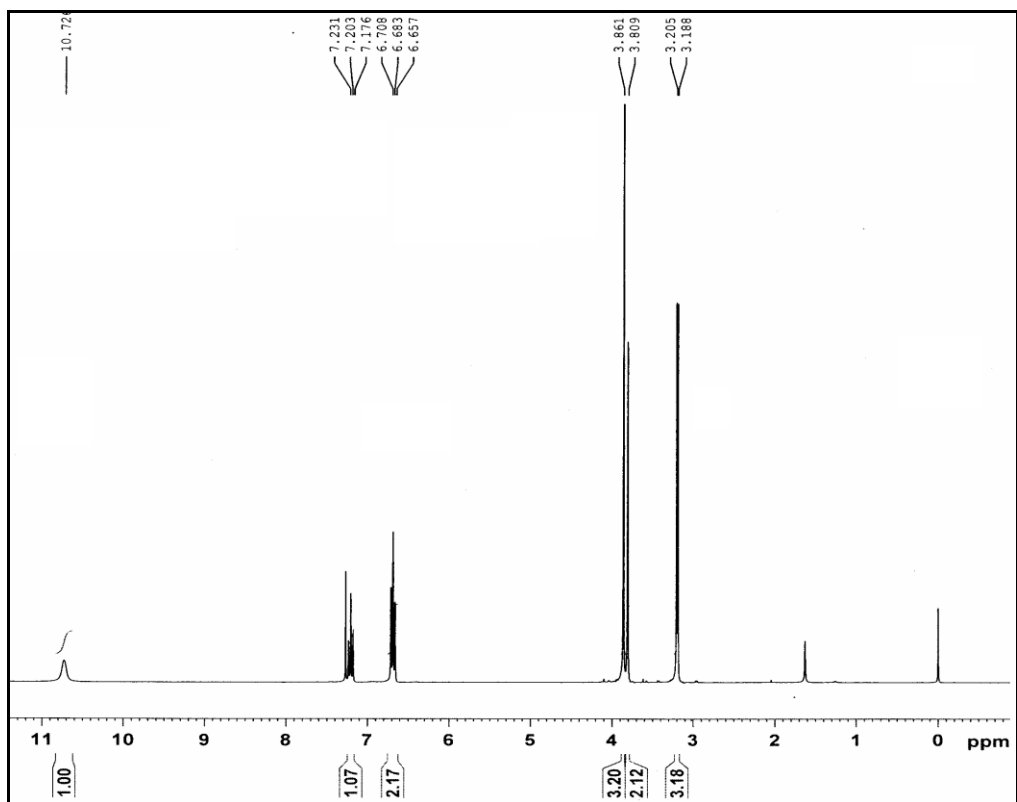
^1H (300 MHz, $\text{CCl}_4:\text{CDCl}_3$, 1:1) and ^{13}C (75 MHz, $\text{CCl}_4:\text{CDCl}_3$, 1:1) NMR spectra of *N*-2-methyl-2*H*-2,3-chromenediamine **10**



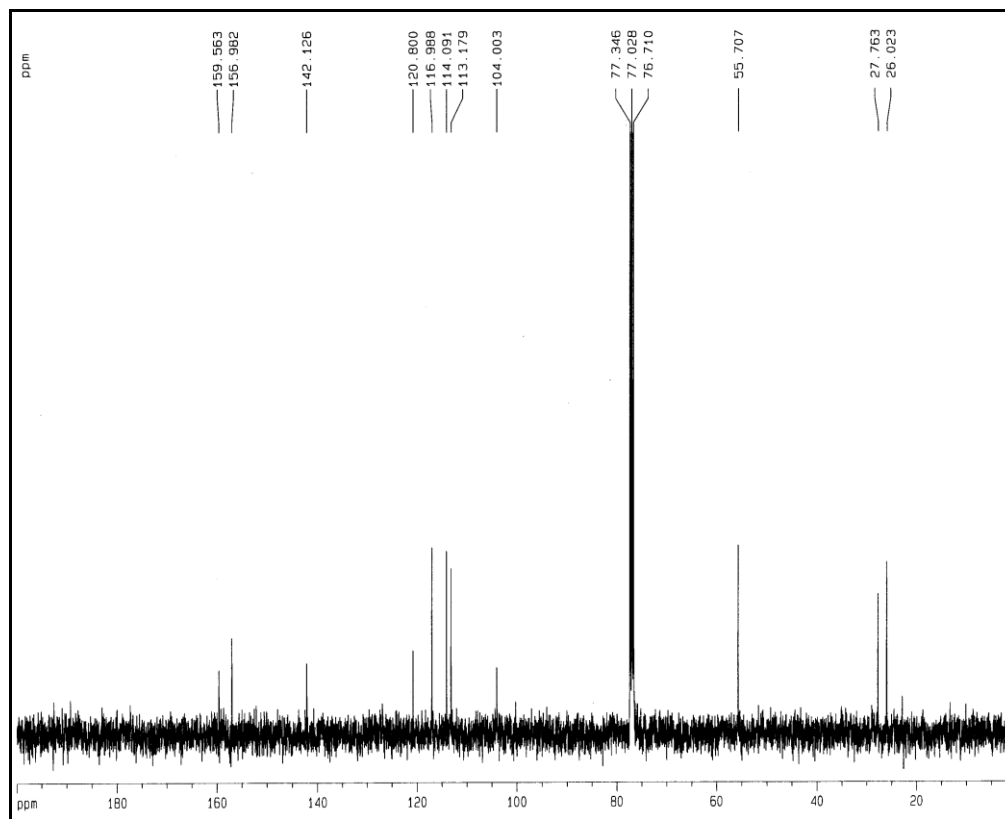
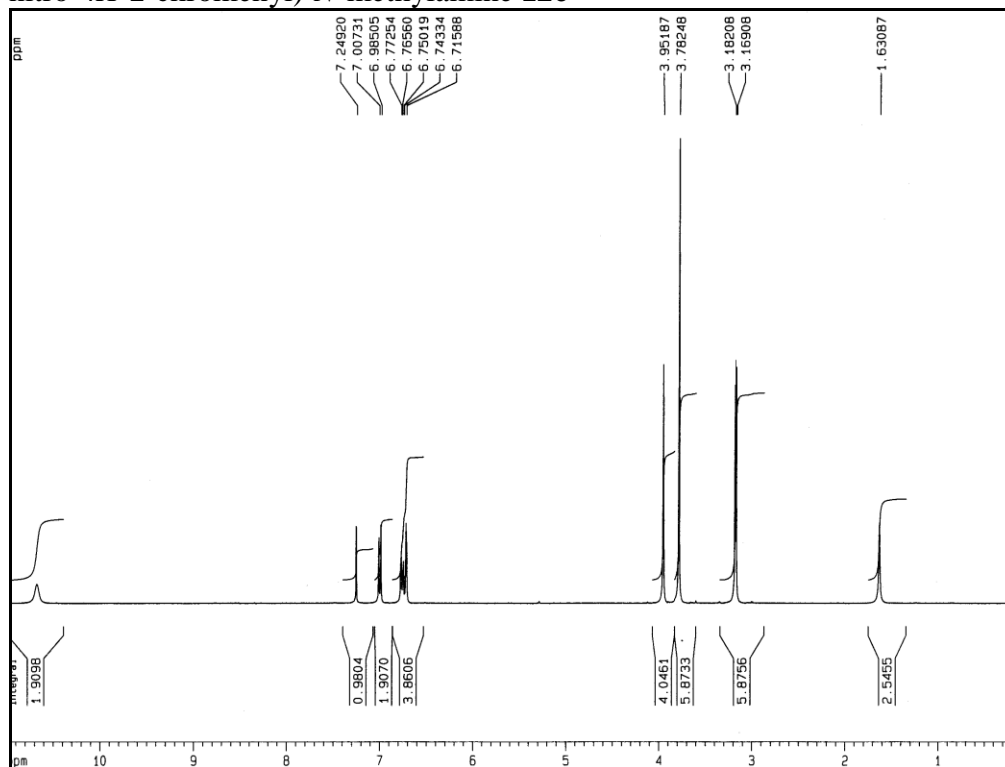
^1H (300 MHz, $\text{CCl}_4:\text{CDCl}_3$, 1:1) and ^{13}C (75 MHz, $\text{CCl}_4:\text{CDCl}_3$, 1:1) NMR spectra of *N*-methyl-*N*-(3-nitro-4*H*-2-chromenyl)amine **12a**



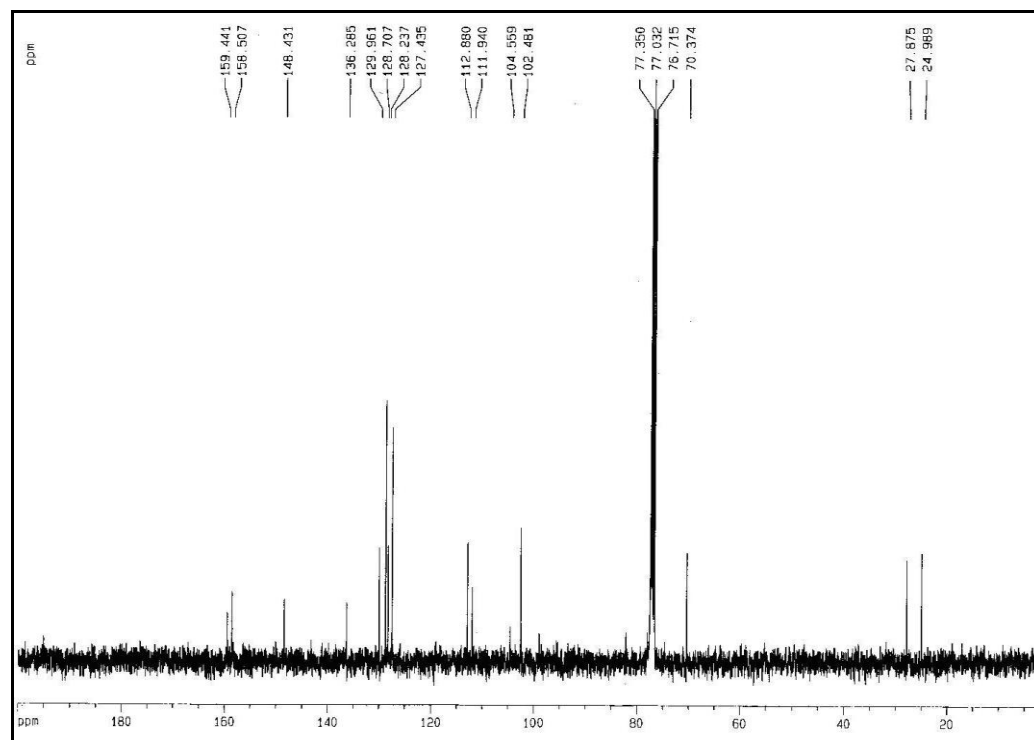
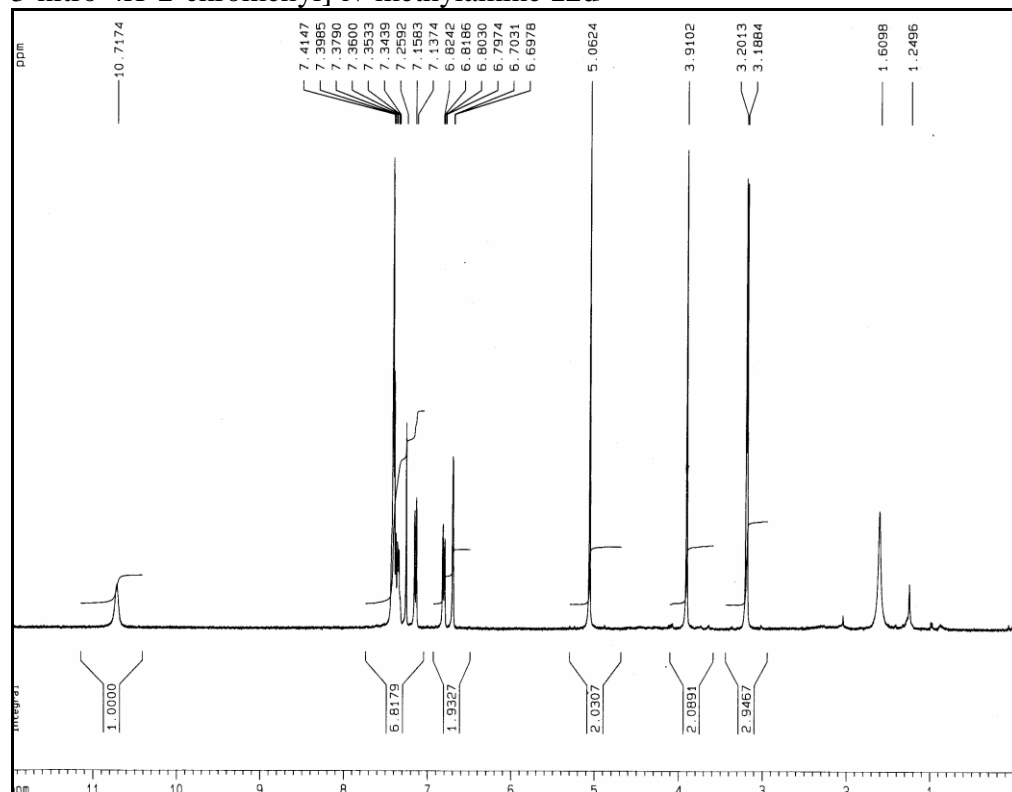
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*-(5-methoxy-3-nitro-4*H*-2-chromenyl)-*N*-methylamine **12b**



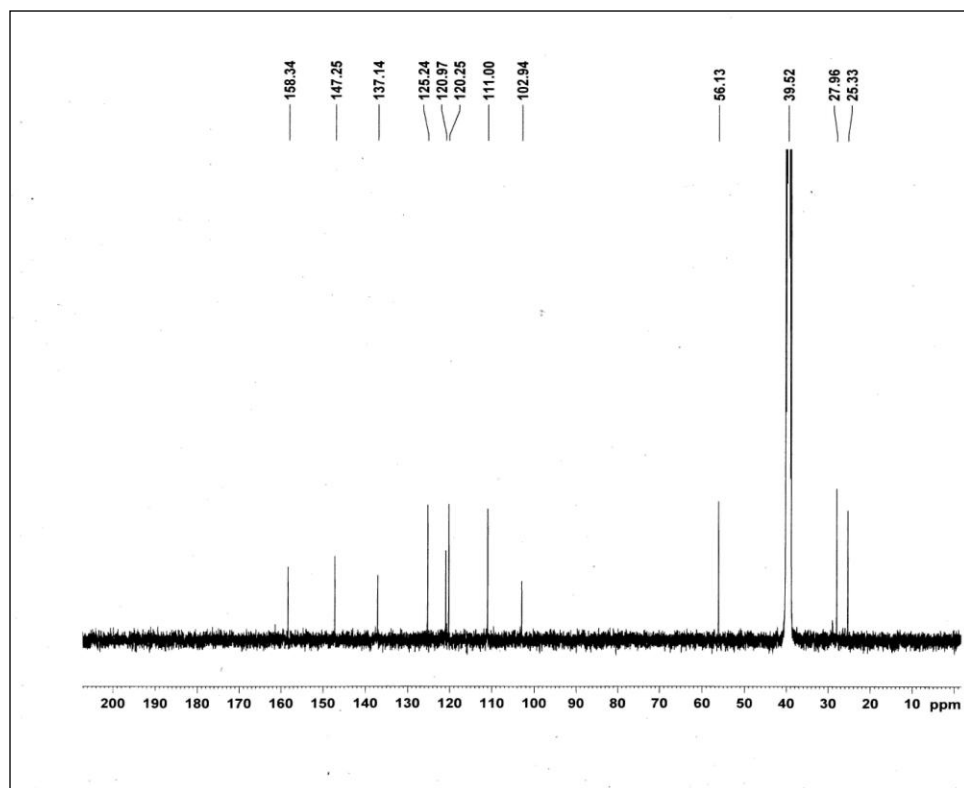
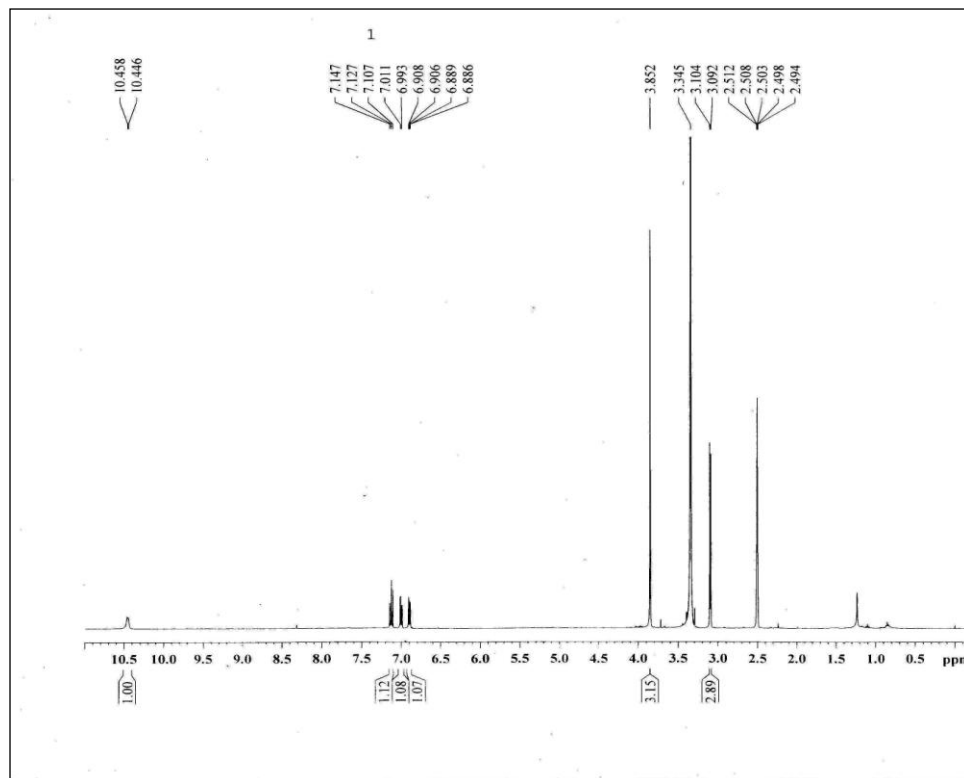
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*-(6-methoxy-3-nitro-4*H*-2-chromenyl)-*N*-methylamine **12c**



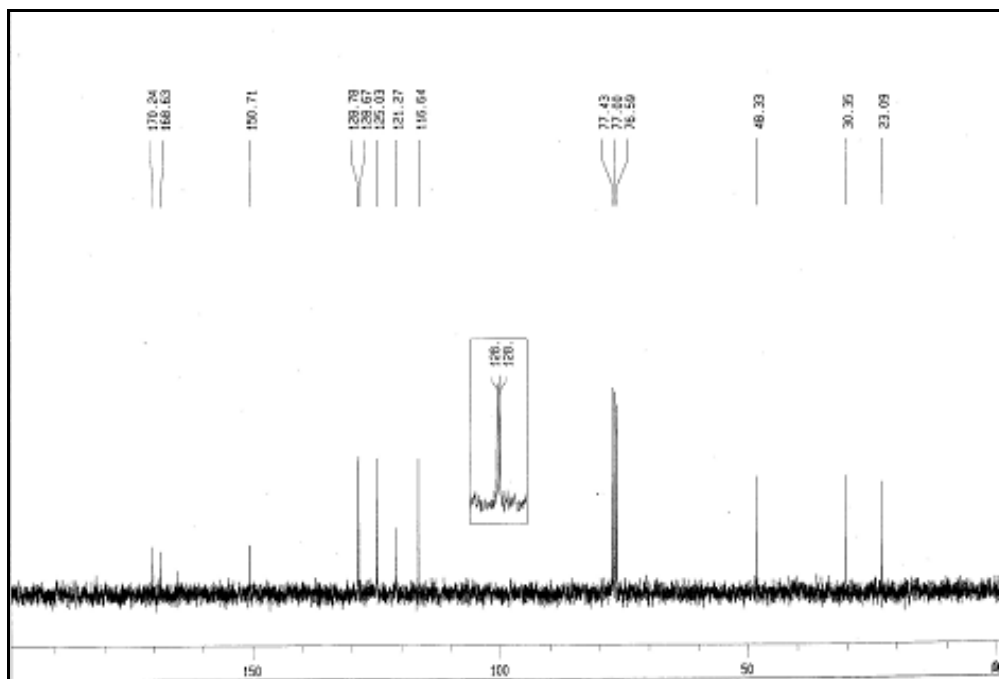
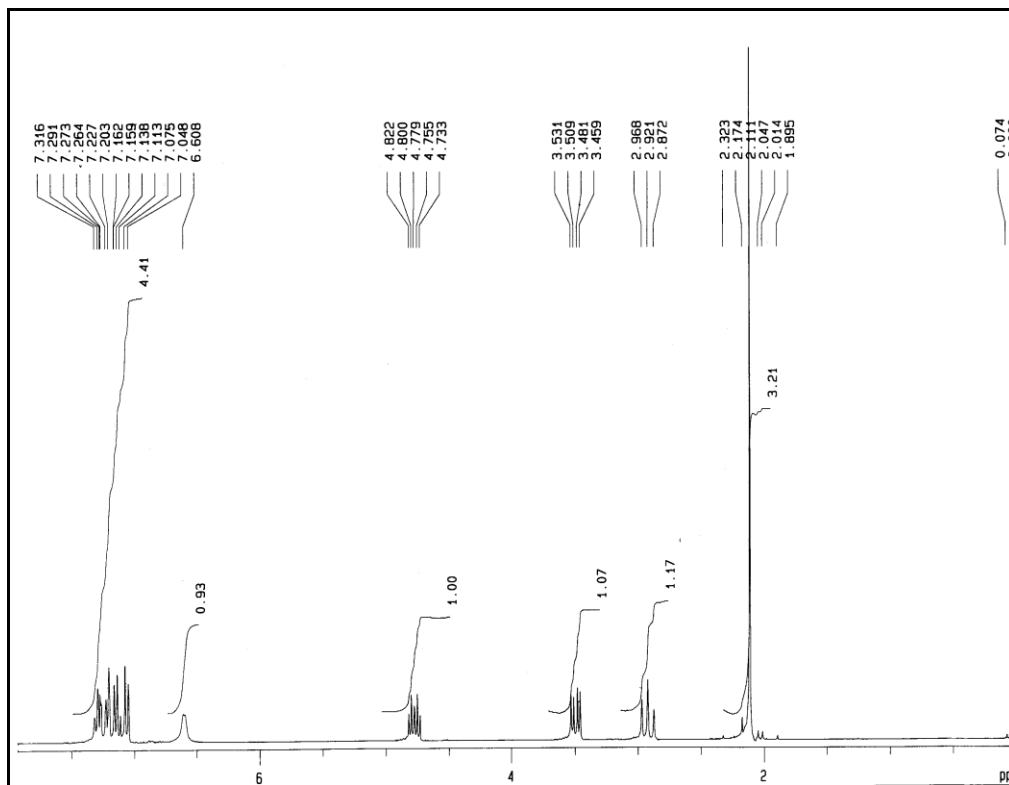
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*-[7-(benzyloxy)-3-nitro-4*H*-2-chromenyl]-*N*-methylamine **12d**



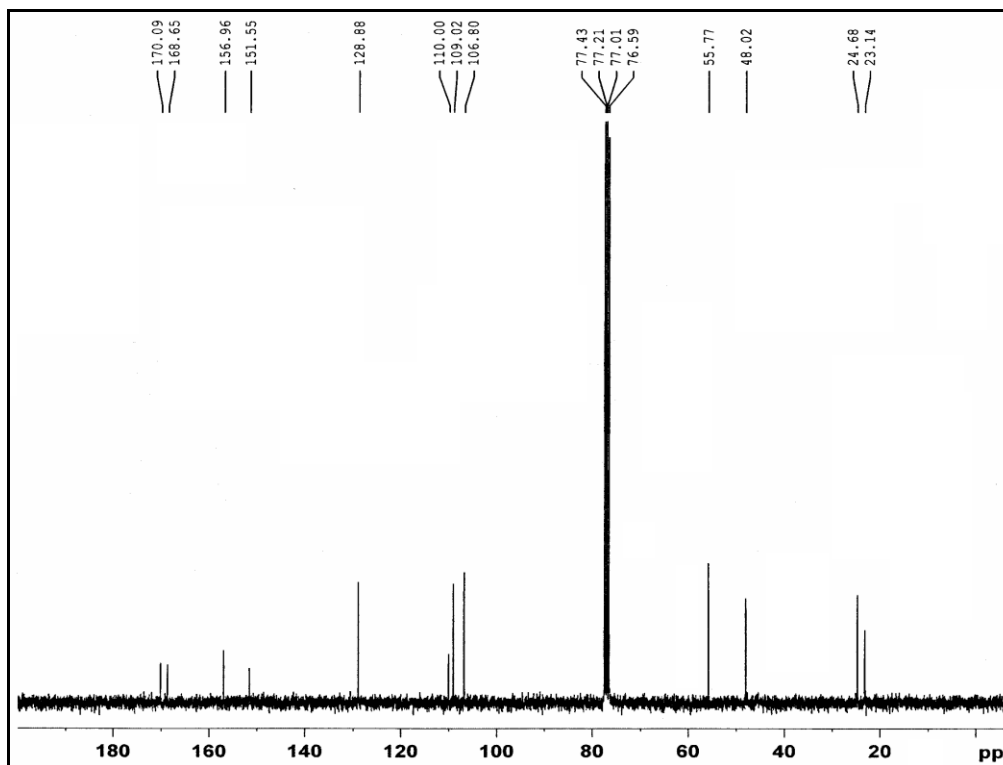
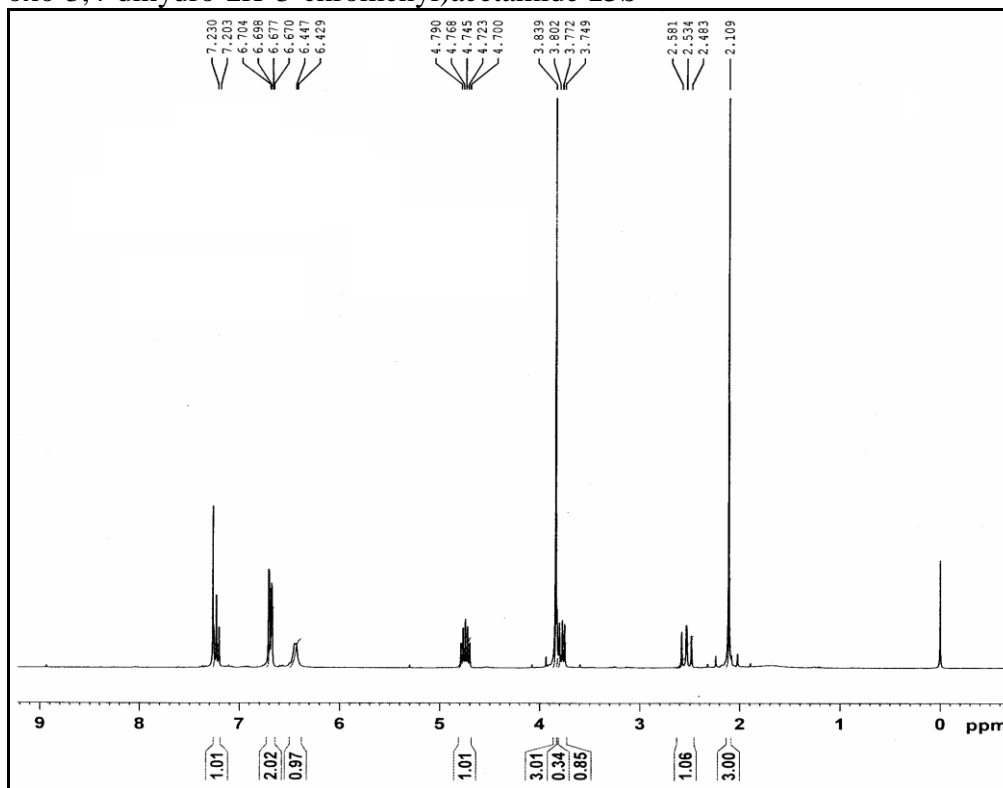
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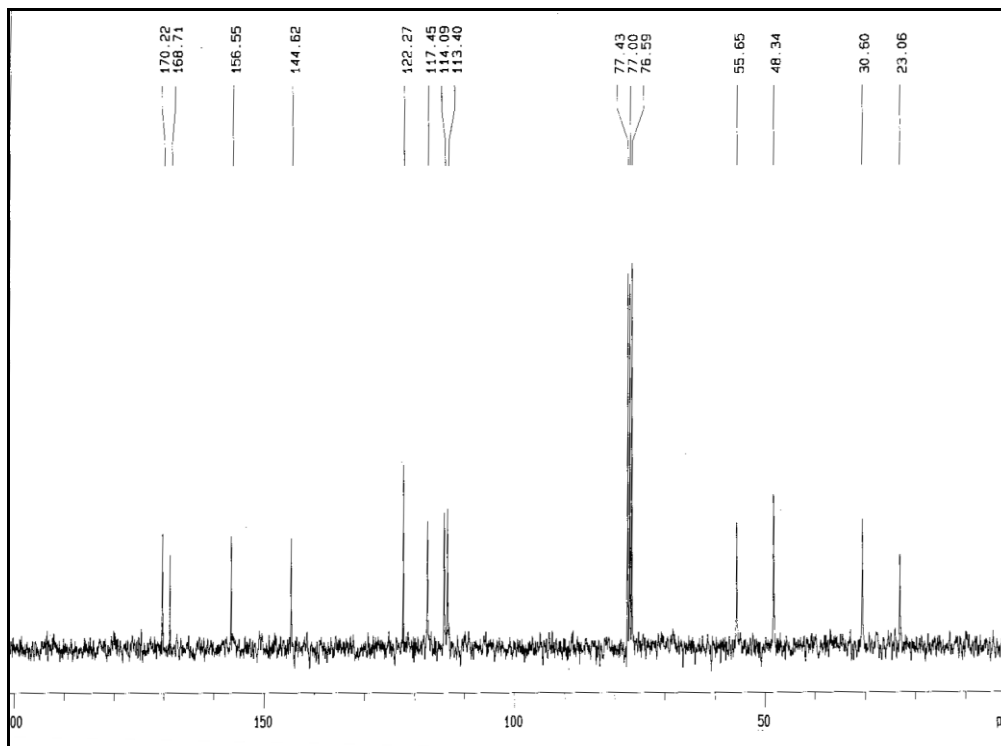
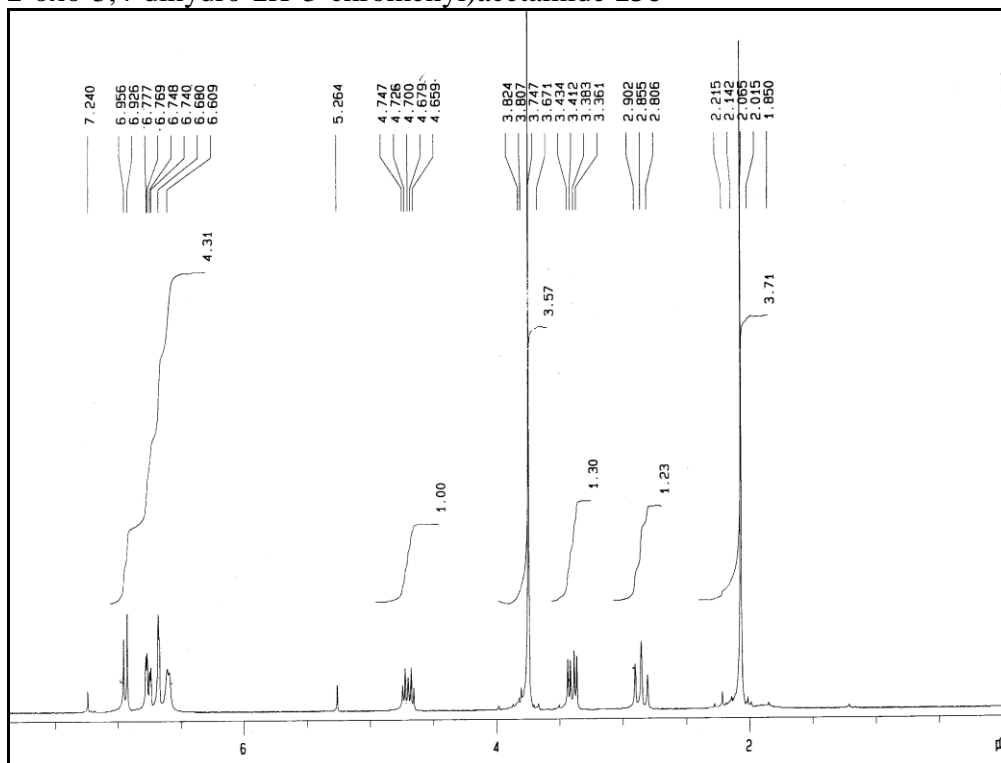
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*1-(2-Oxo-3,4-dihydro-2*H*-3-chromenyl)acetamide **13a**



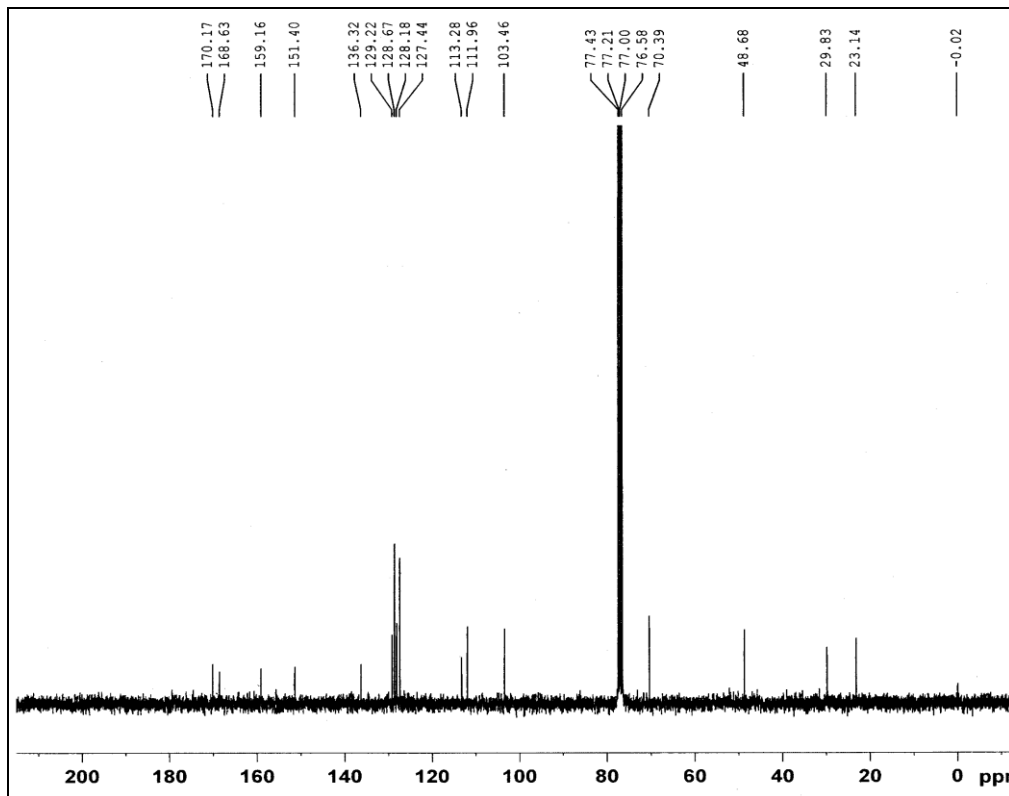
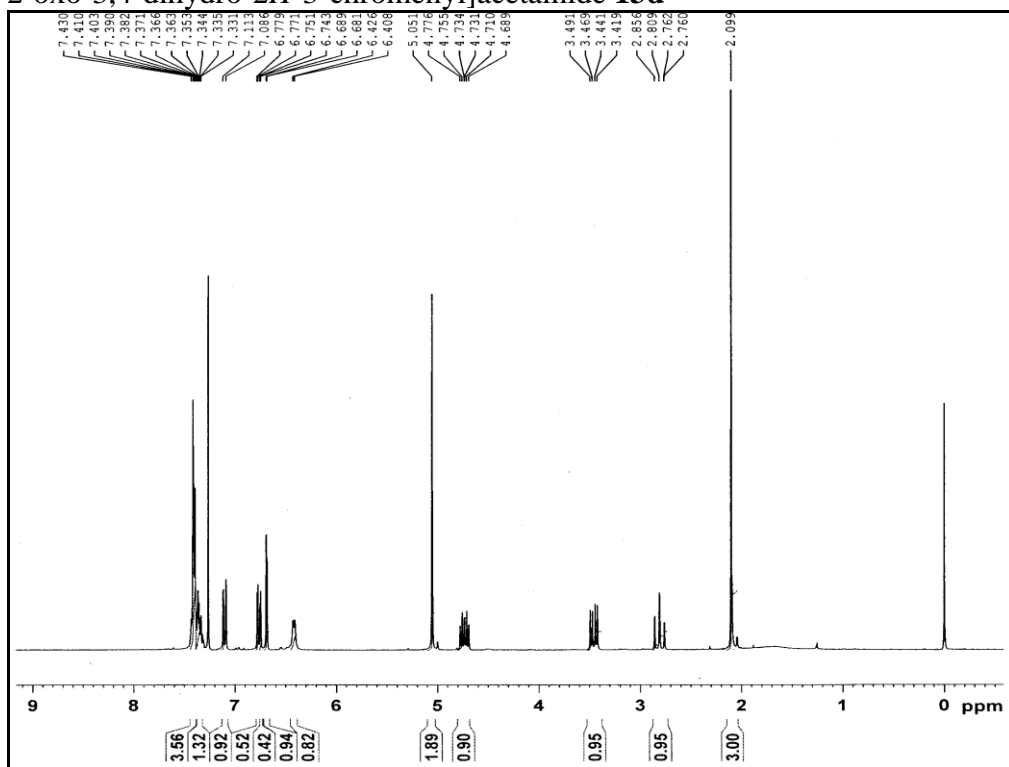
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*-1-(5-methoxy-2-oxo-3,4-dihydro-2*H*-3-chromenyl)acetamide **13b**



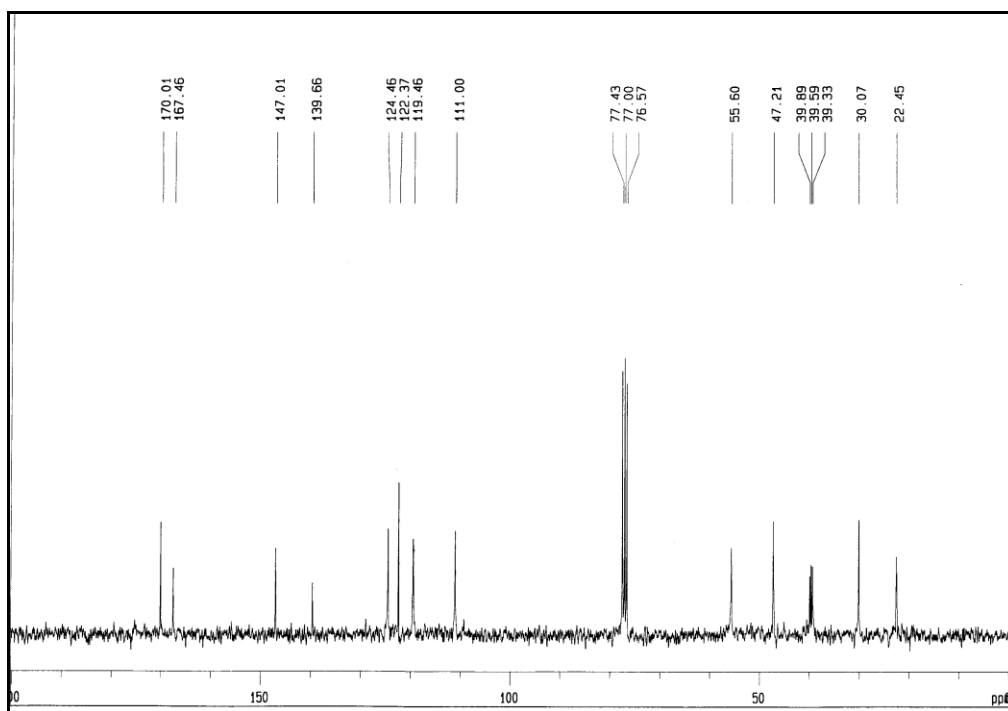
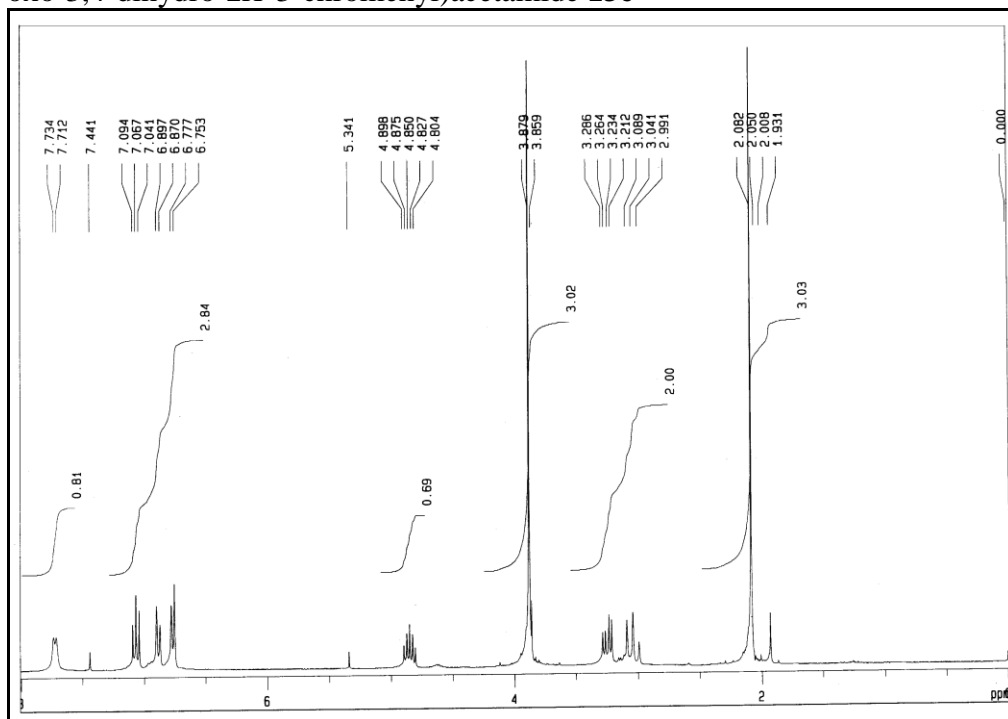
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*-1-(6-methoxy-2-oxo-3,4-dihydro-2*H*-3-chromenyl)acetamide **13c**



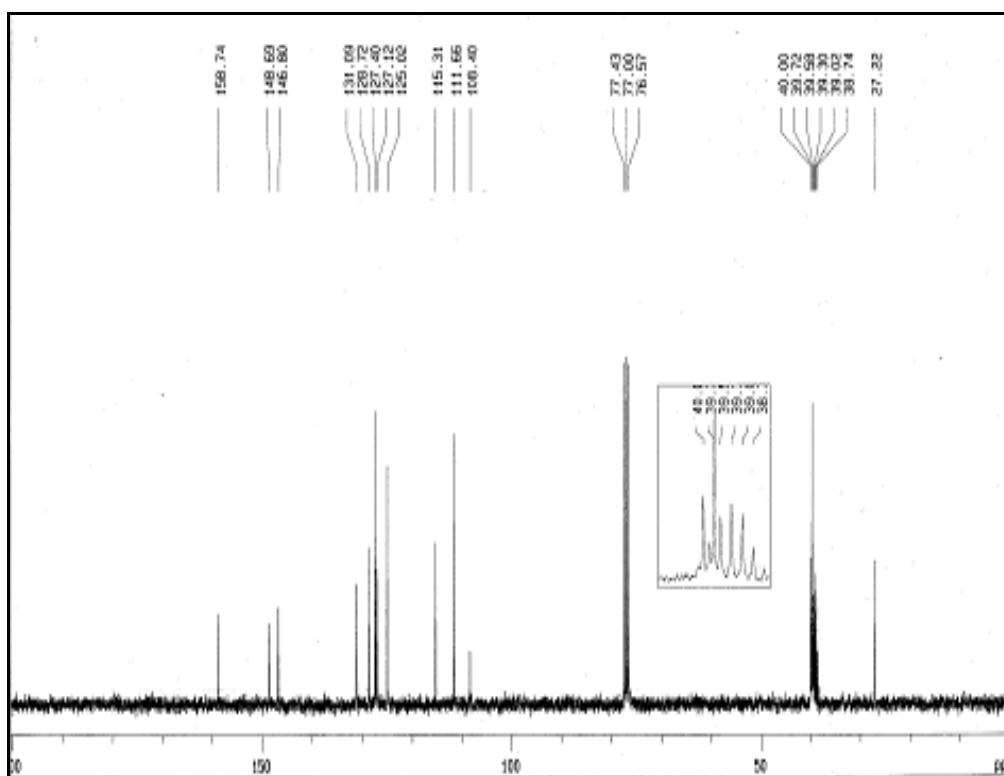
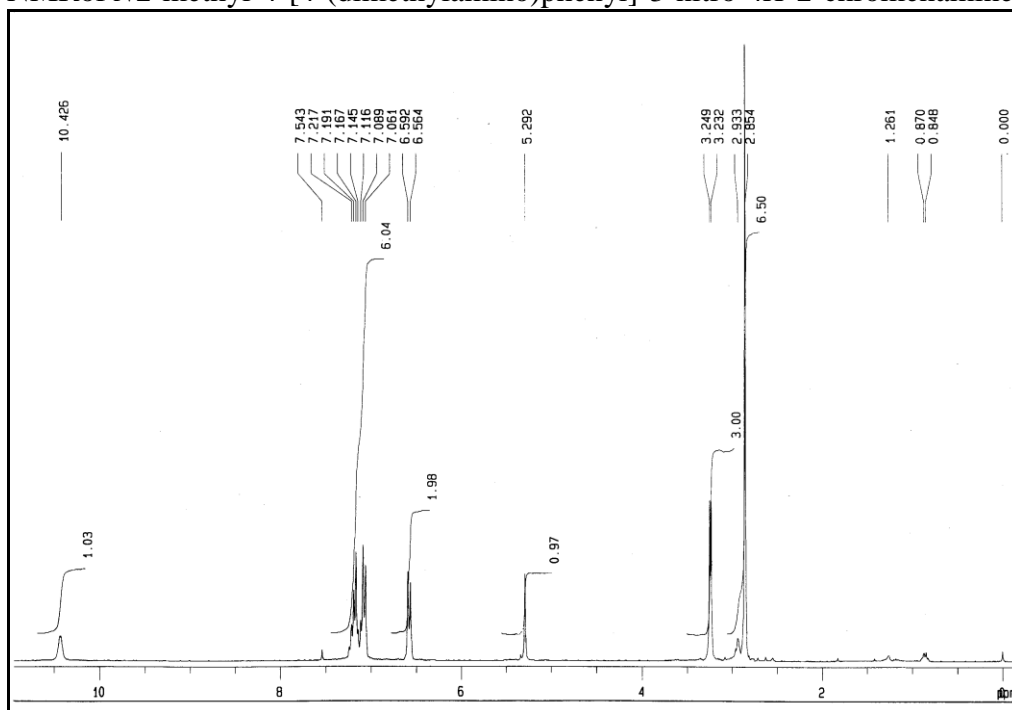
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*-[7-(benzyloxy)-2-oxo-3,4-dihydro-2*H*-3-chromenyl]acetamide **13d**



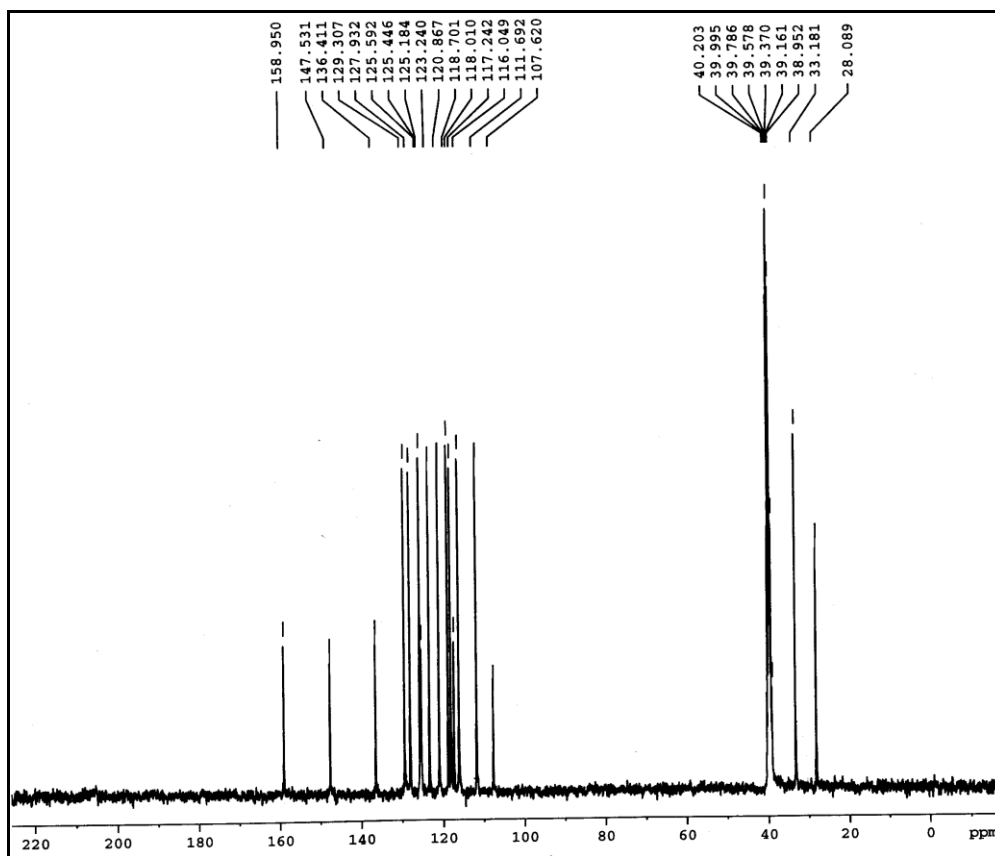
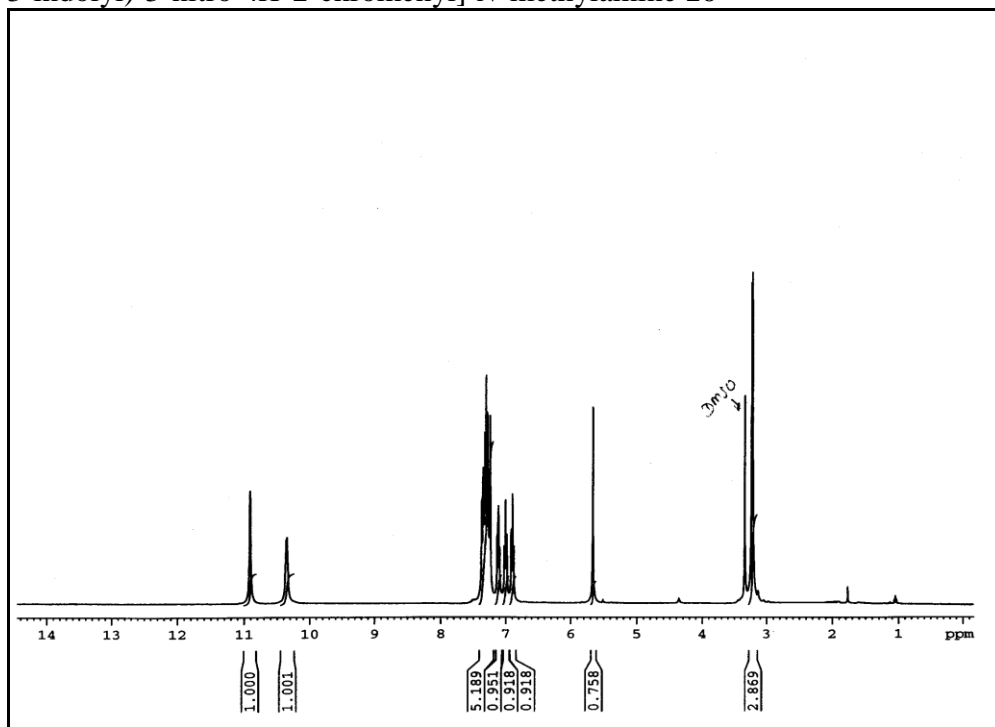
^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*1-(8-methoxy-2-oxo-3,4-dihydro-2*H*-3-chromenyl)acetamide **13e**



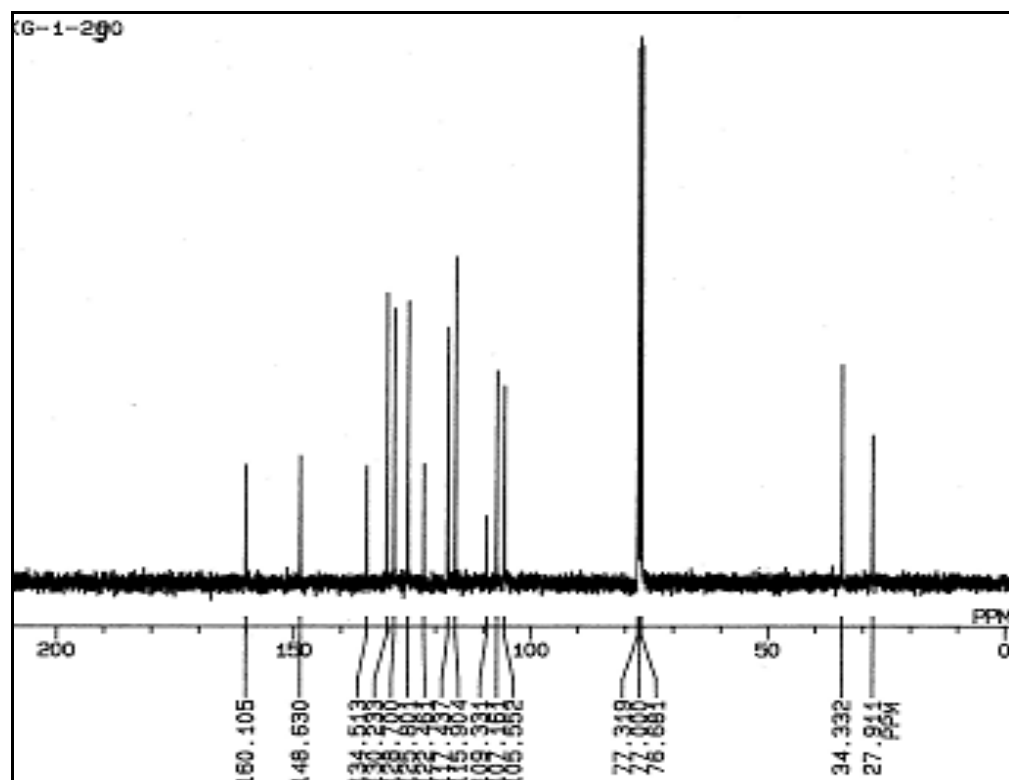
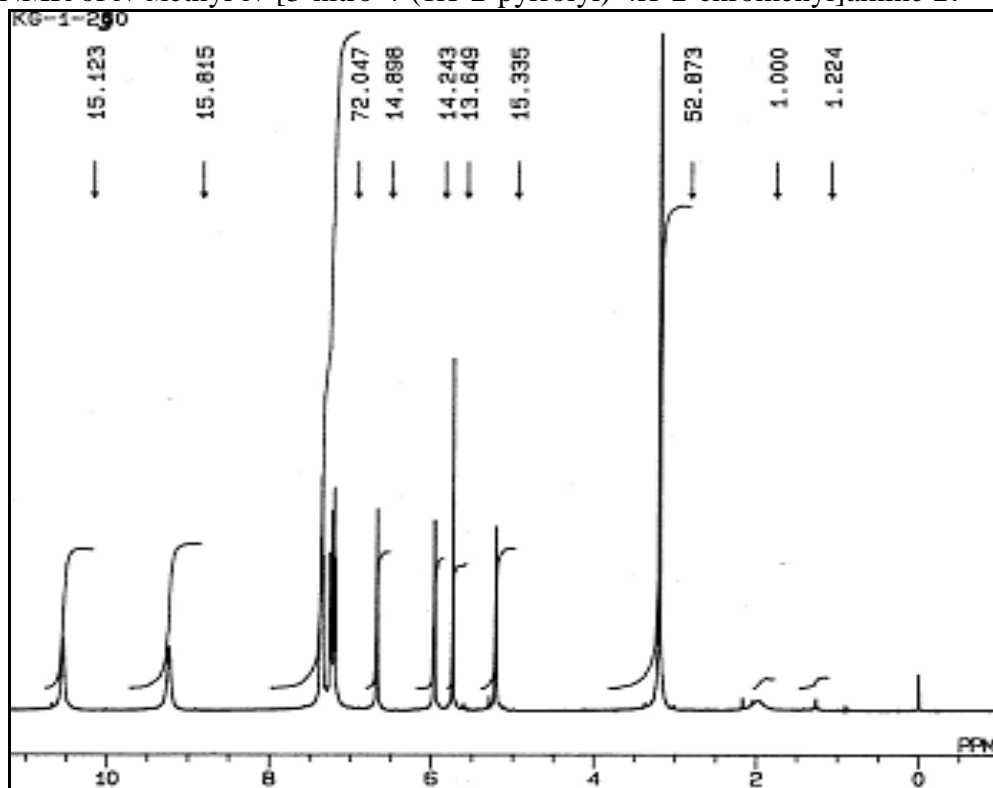
^1H (300 MHz, $\text{CDCl}_3 + \text{DMSO-D}_6$, 9:1) and ^{13}C (75 MHz, $\text{CDCl}_3 + \text{DMSO-D}_6$, 9:1)
NMR of *N*-2-methyl-4-[4-(dimethylamino)phenyl]-3-nitro-4*H*-2-chromenamine **15**



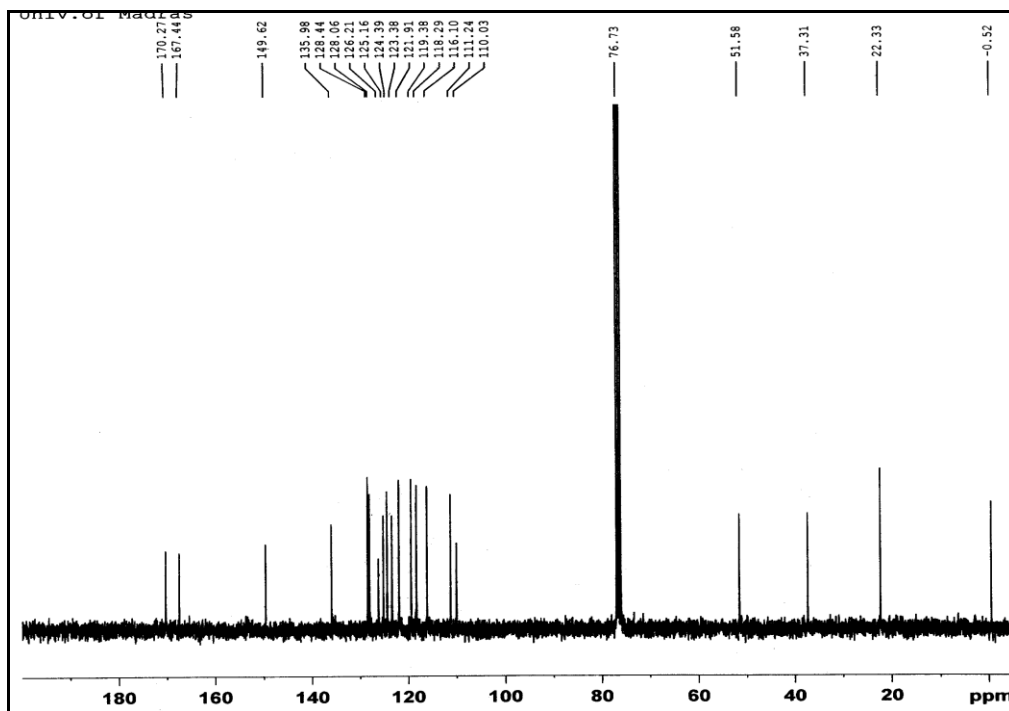
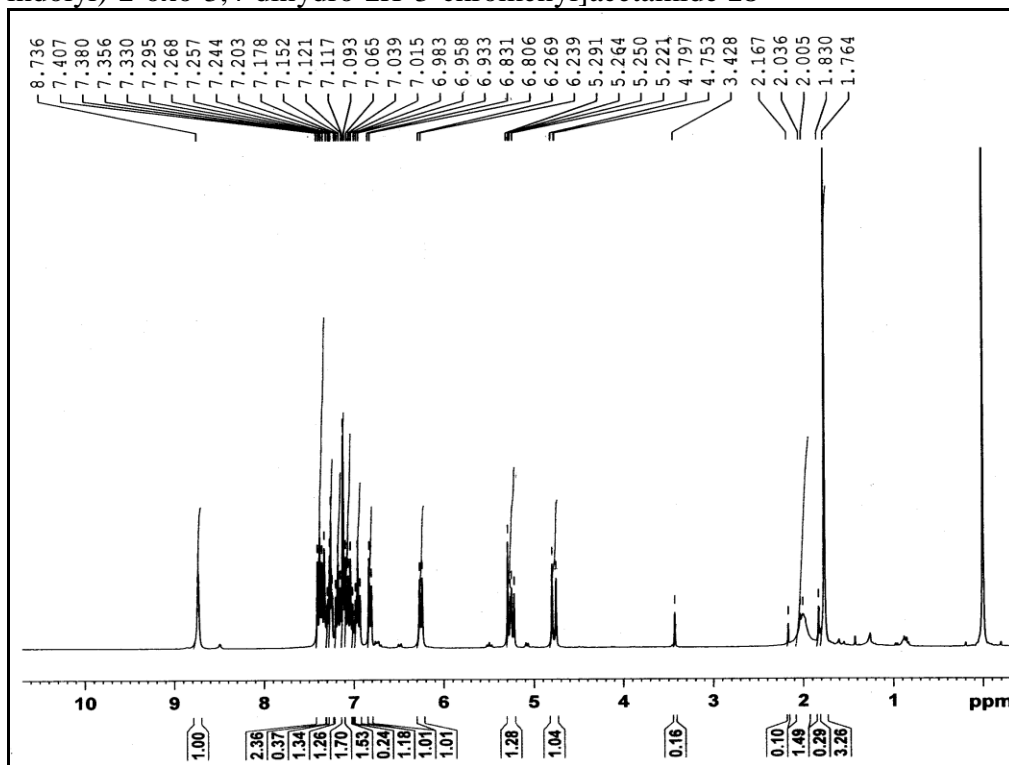
^1H (400 MHz, $\text{DMSO-}D_6$) and ^{13}C (100 MHz, $\text{DMSO-}D_6$) NMR of *N*-[4-(1*H*-3-indolyl)-3-nitro-4*H*-2-chromenyl]-*N*-methylamine **16**



^1H (400 MHz, $\text{CCl}_4:\text{CDCl}_3$, 1:1) and ^{13}C (100 MHz, $\text{CCl}_4:\text{CDCl}_3$, 1:1) and ^{13}C
NMR of *N*-Methyl-*N*-[3-nitro-4-(1*H*-2-pyrrolyl)-4*H*-2-chromenyl]amine **17**



^1H (300 MHz, CDCl_3) and ^{13}C (75 MHz, CDCl_3) NMR of *N*-[4-(1*H*-3-indolyl)-2-oxo-3,4-dihydro-2*H*-3-chromenyl]acetamide **18**



^1H (300 MHz, $\text{CDCl}_3 + \text{DMSO-D}_6$, 9:1) and ^{13}C (75 MHz, $\text{CDCl}_3 + \text{DMSO-D}_6$, 9:1) NMR of 3-amino-4-(1*H*-3-indolyl)-2*H*-2-chromenone **19**

