

Figure S3 : NMR 2D cosy of compound (1)

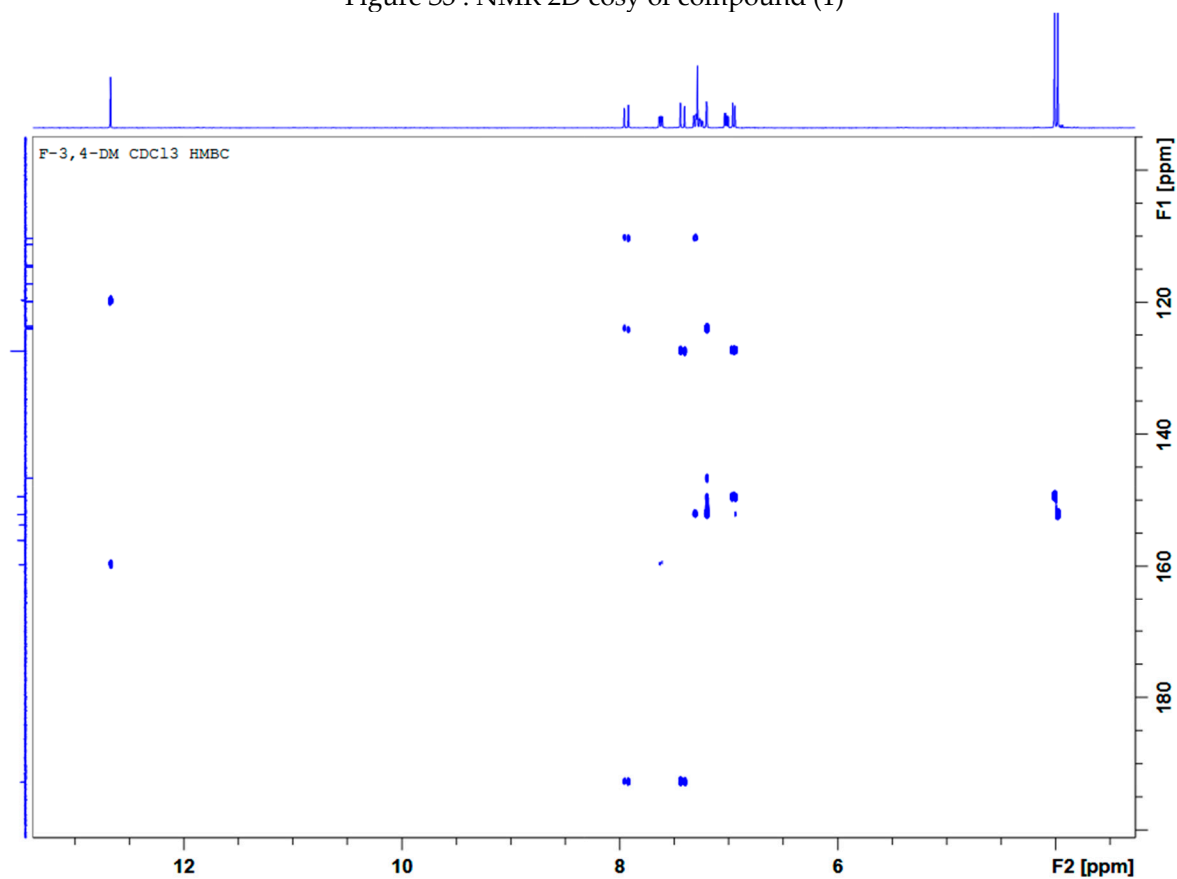


Figure S4 : NMR 2D HMBC of compound (1)

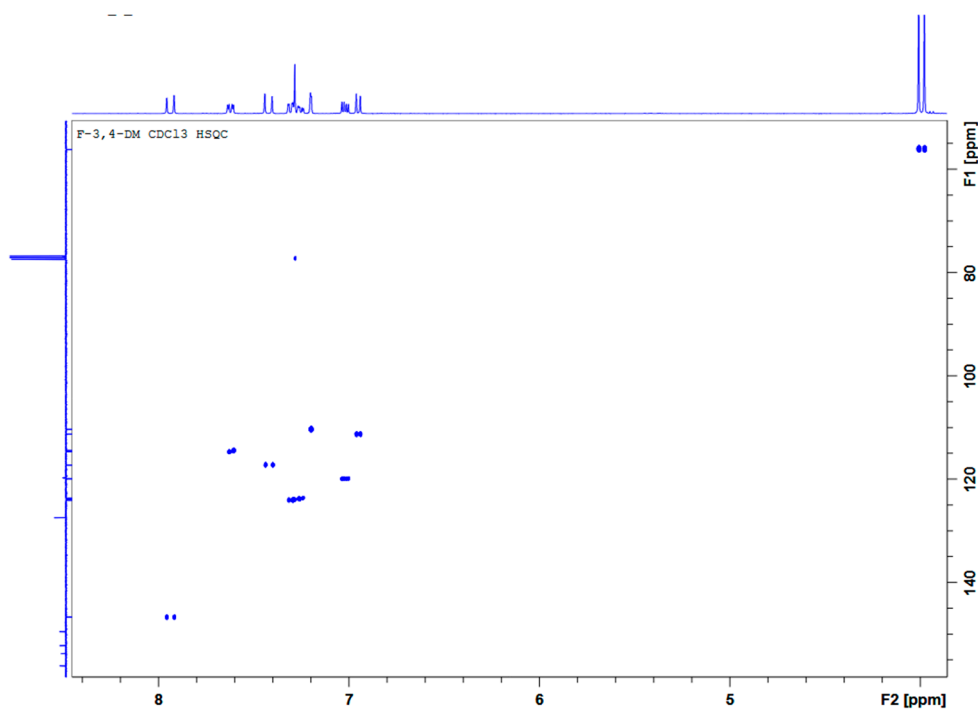


Figure S5 : NMR 2D HSQC of compound (1)

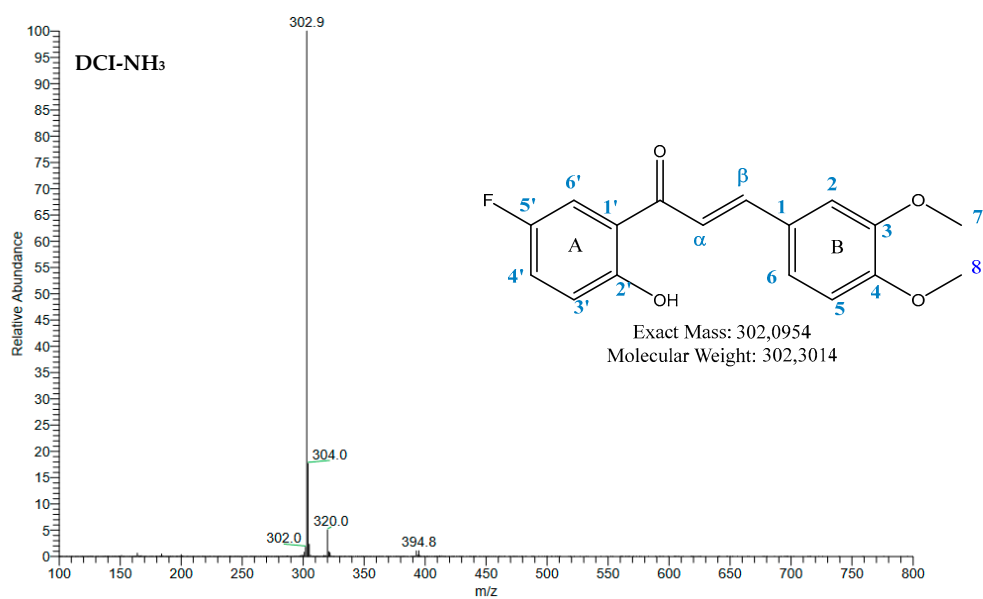


Figure S6 : MS of compound (1)

C: 0-100 H: 0-100 O: 0-5 F: 0-1  
DCI-CH4  
20240403-1-C-F-3-4-DM 2 (0.019) Cm (2.6-68.71x5.000)

GCT Premier CAB109

03-Apr-2024 09:47:00  
TOF MS Cl+

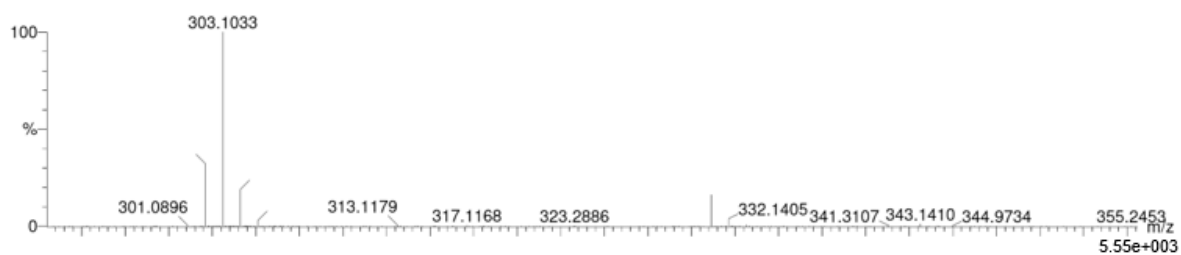


Figure S7 : HRMS of compound (1)

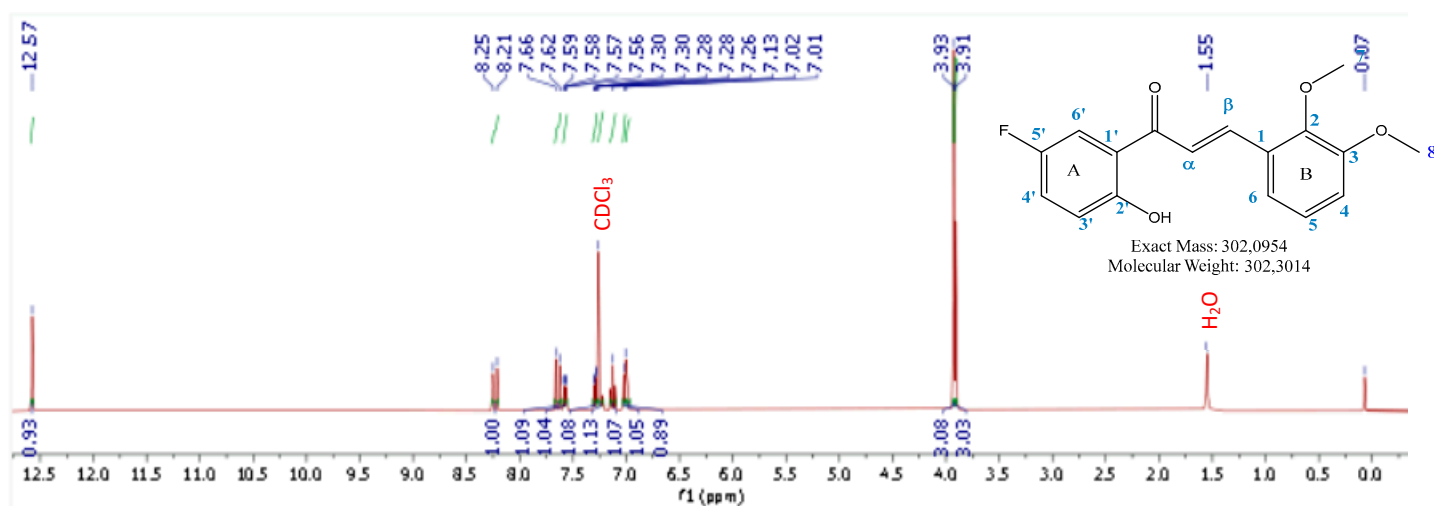


Figure S8 :  $^1\text{H}$  NMR of compound (2)

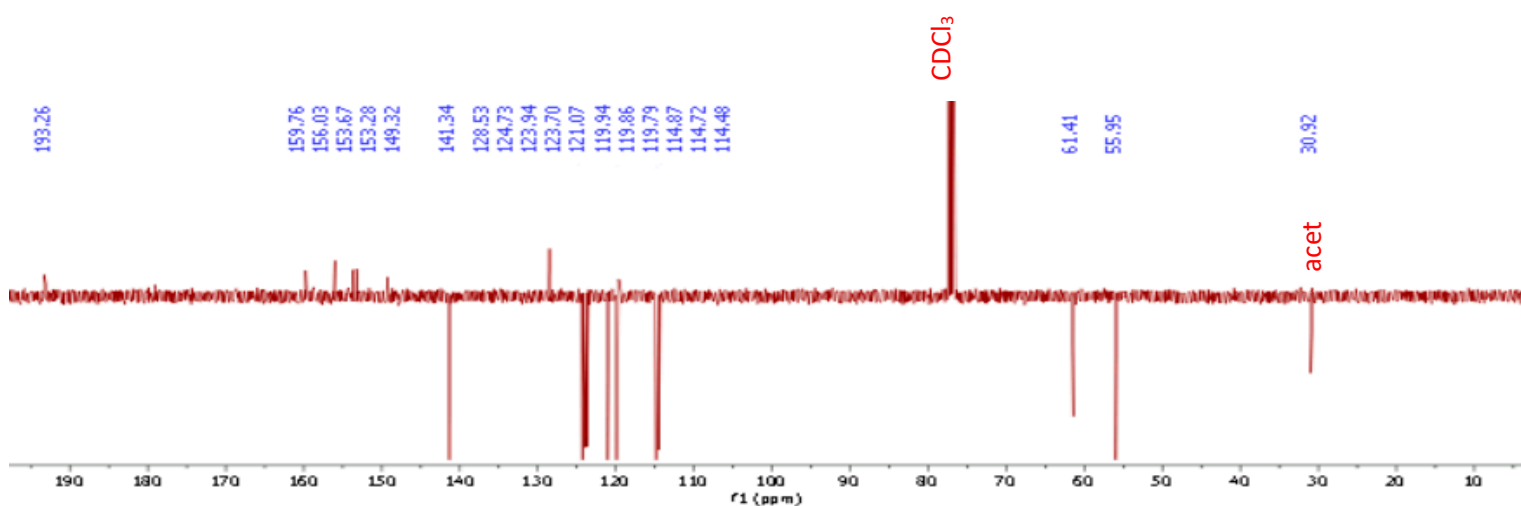


Figure S9 :  $^{13}\text{C}$  NMR of compound (2)

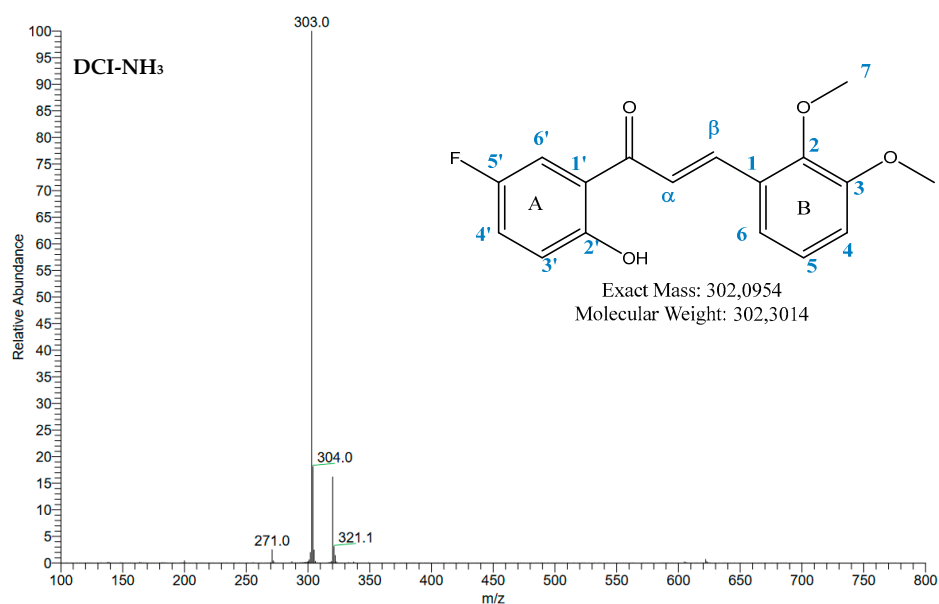


Figure S10 : MS of compound (2)

C: 0-100 H: 0-100 O: 0-5 F: 0-1  
 DCI-CH4  
 20240403-2-C-F-2-3-DM 4 (0.067) Cm (2-10-65:70x5.000)

GCT Premier CAB109

03-Apr-2024 09:55:40  
 TOF MS Cl+  
 2.32e+004

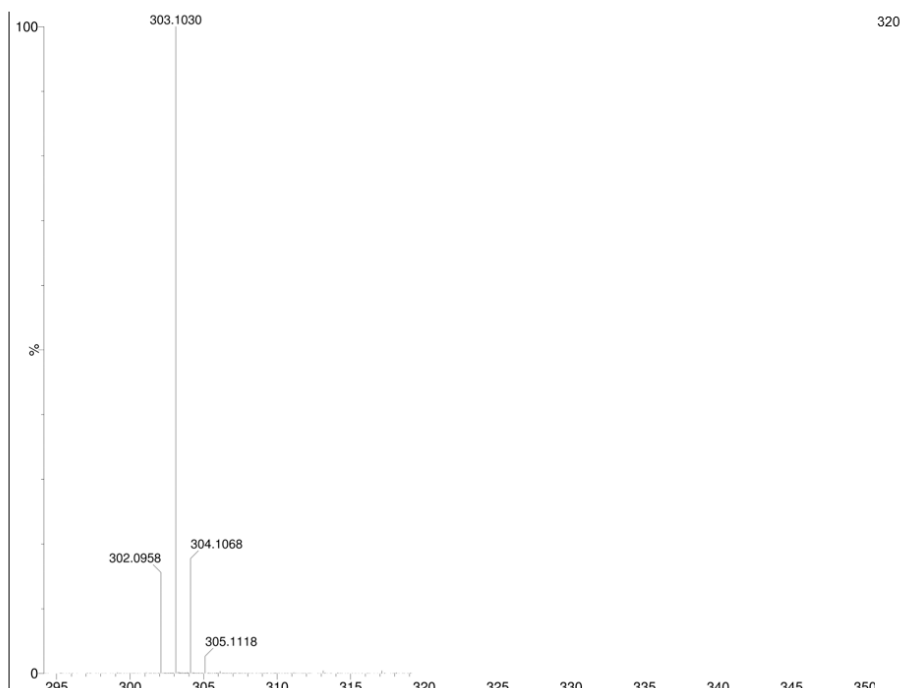


Figure S11 : HRMS of compound (2)

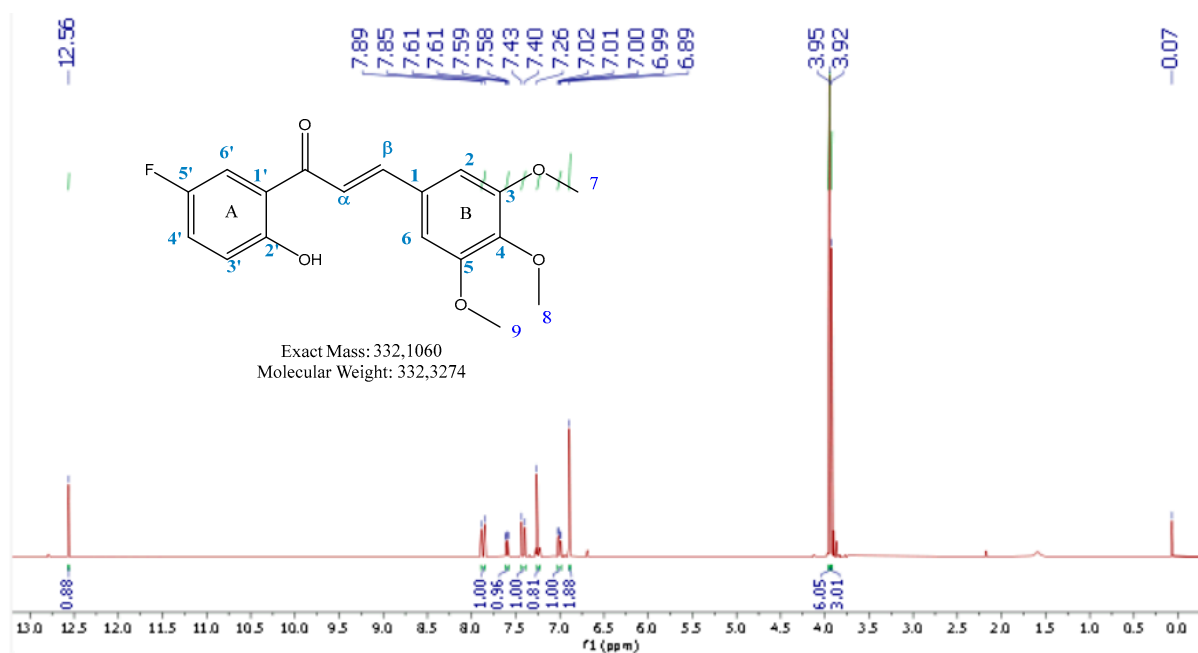


Figure S12 : <sup>1</sup>H NMR of compound (3)

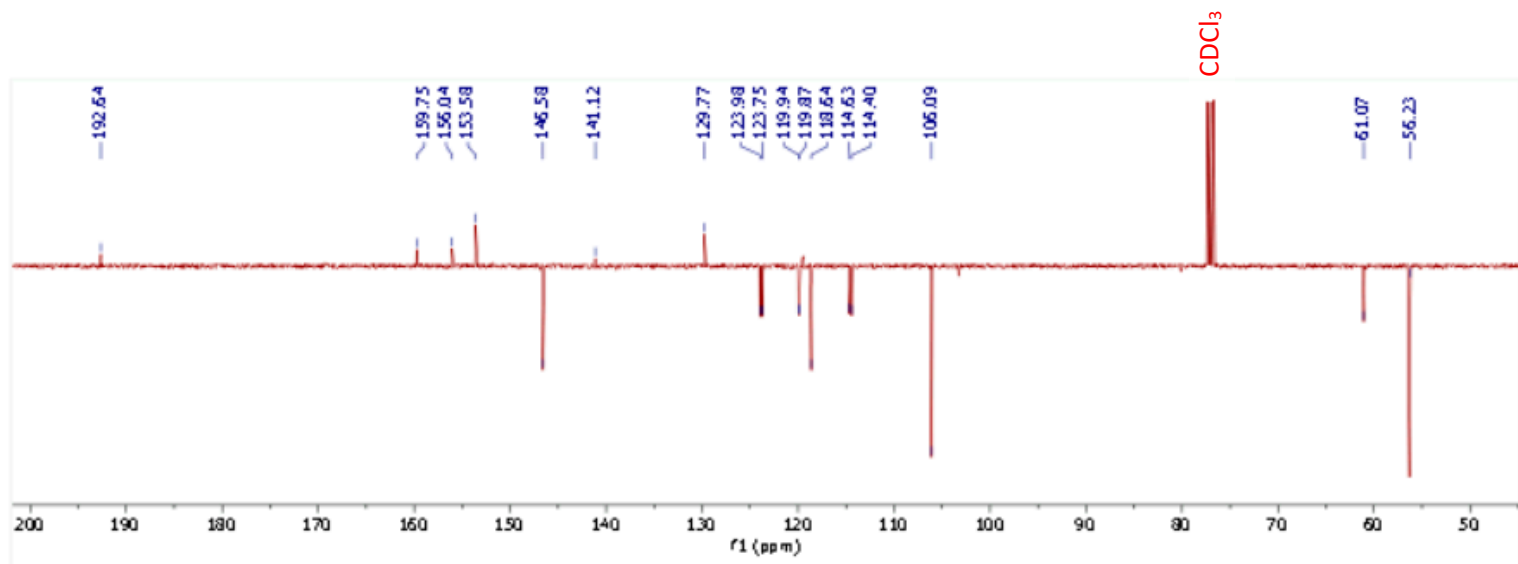


Figure 13 : <sup>13</sup>C NMR of compound (3)

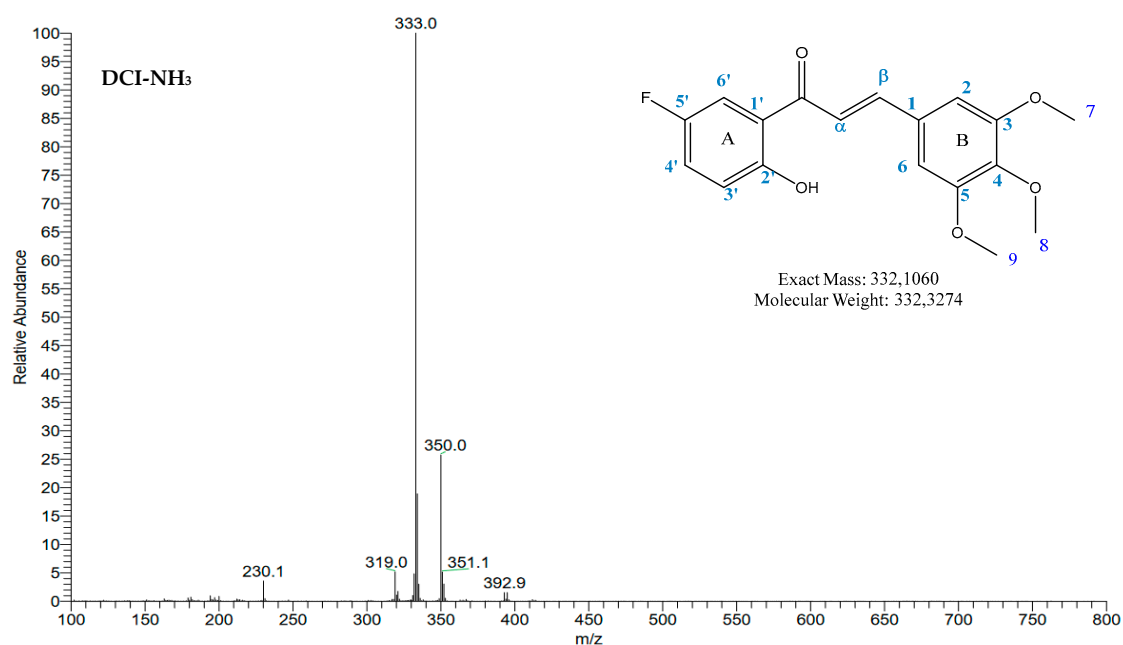


Figure S14 : MS of compound (3)

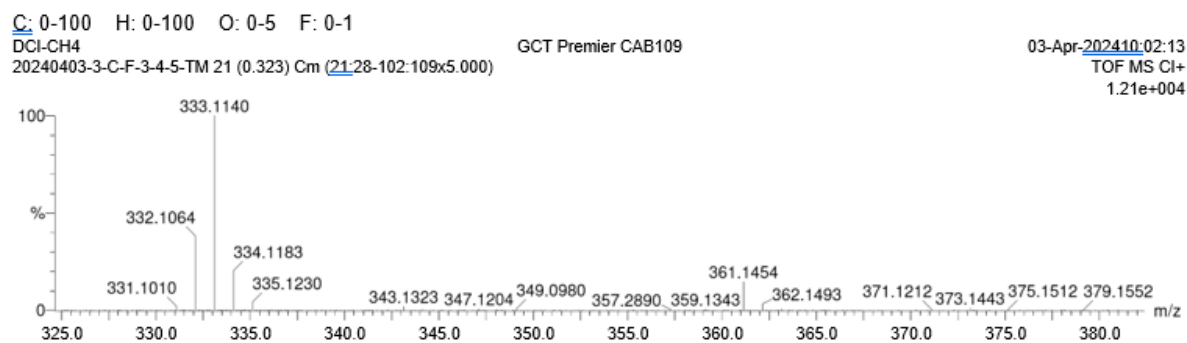


Figure S15 : HRMS of compound (3)

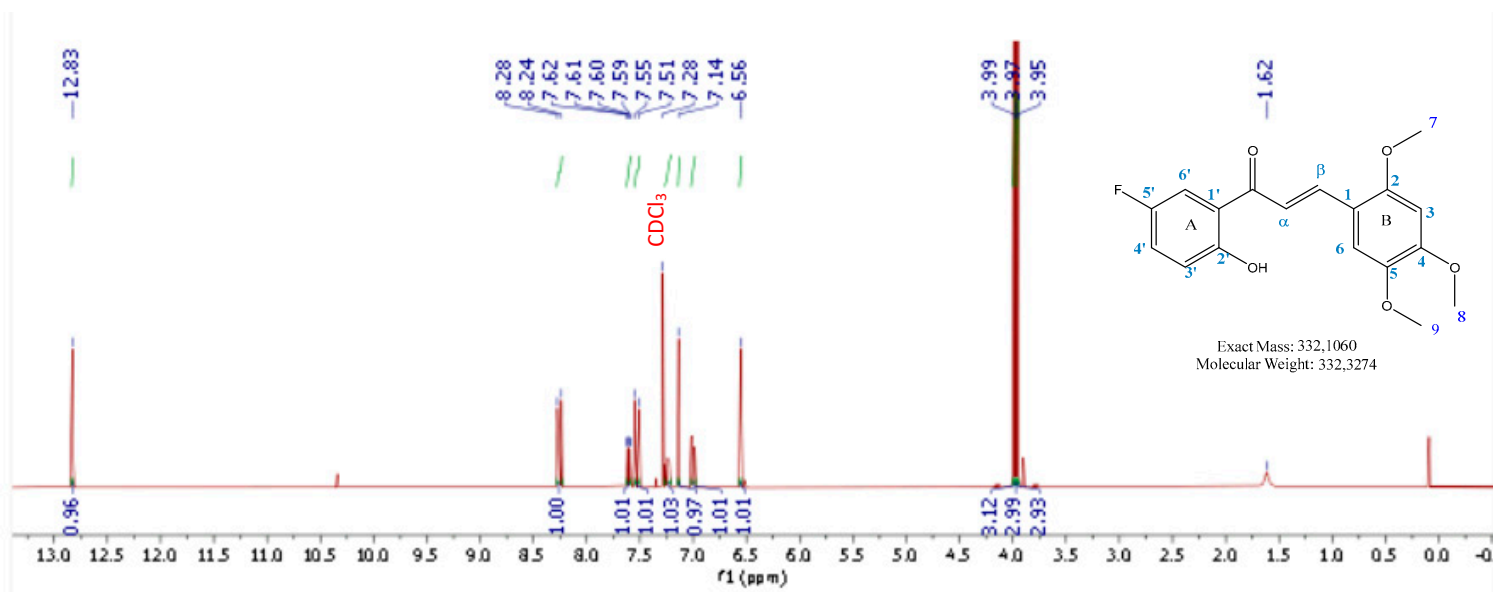


Figure S16 : <sup>1</sup>H NMR of compound (4)

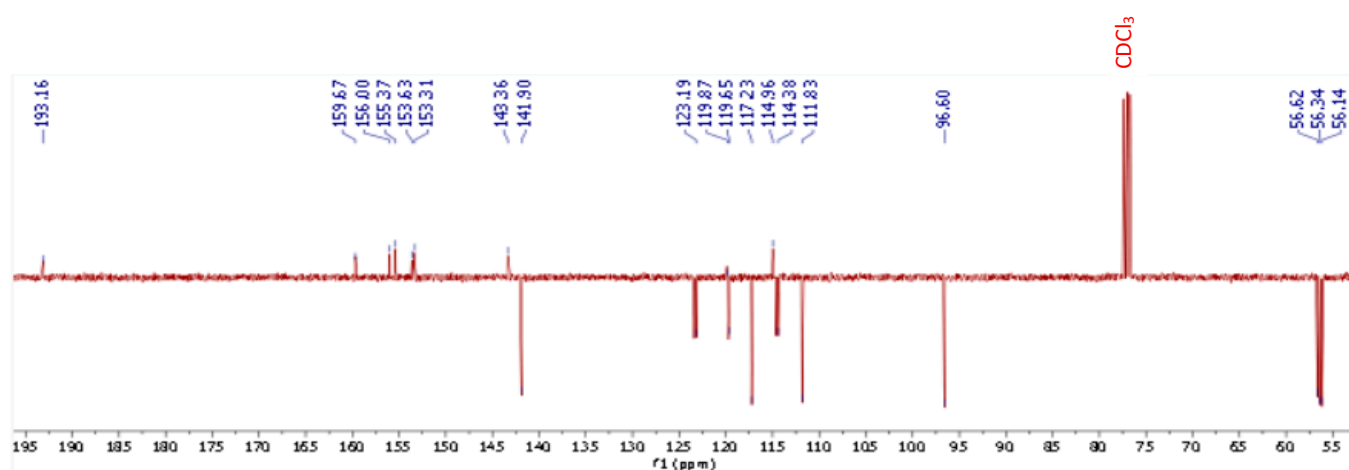


Figure S17 : <sup>13</sup>C NMR of compound (4)

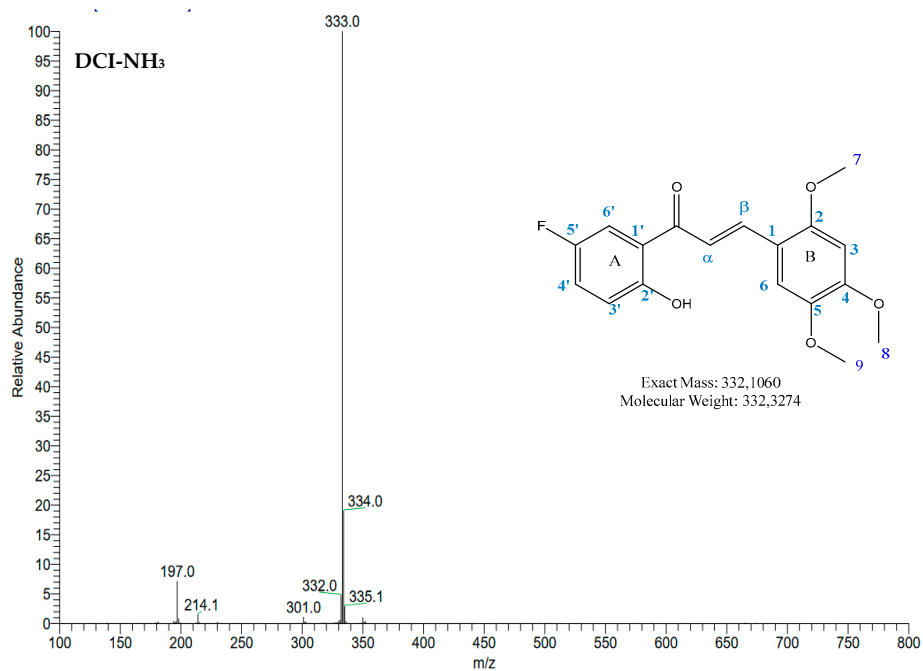


Figure S18 : MS of compound (4)

C: 0-100 H: 0-100 O: 0-5 F: 0-1  
 DCI-CH4  
 20240403-4-C-F-2-4-5-TM- 2 (0.033) Cm (2:10-57:69x5.000)

GCT Premier CAB109

03-Apr-2024 12:11:21  
 TOF MS CI+  
 6.82e+003

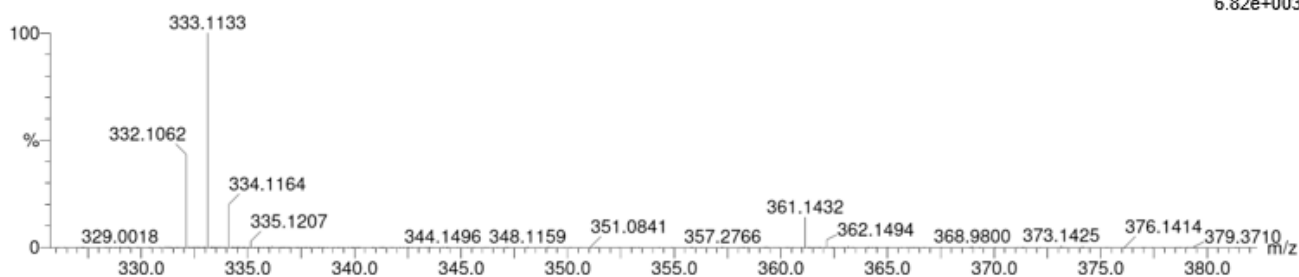


Figure S19 : HRMS of compound (4)

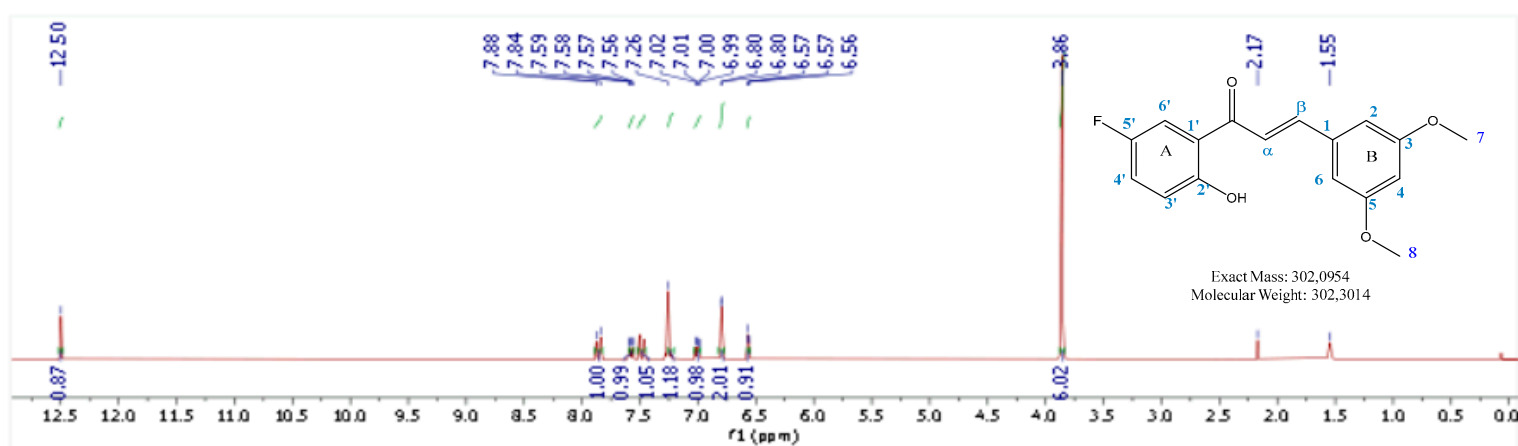


Figure S20 :  $^1\text{H}$  NMR of compound (5)

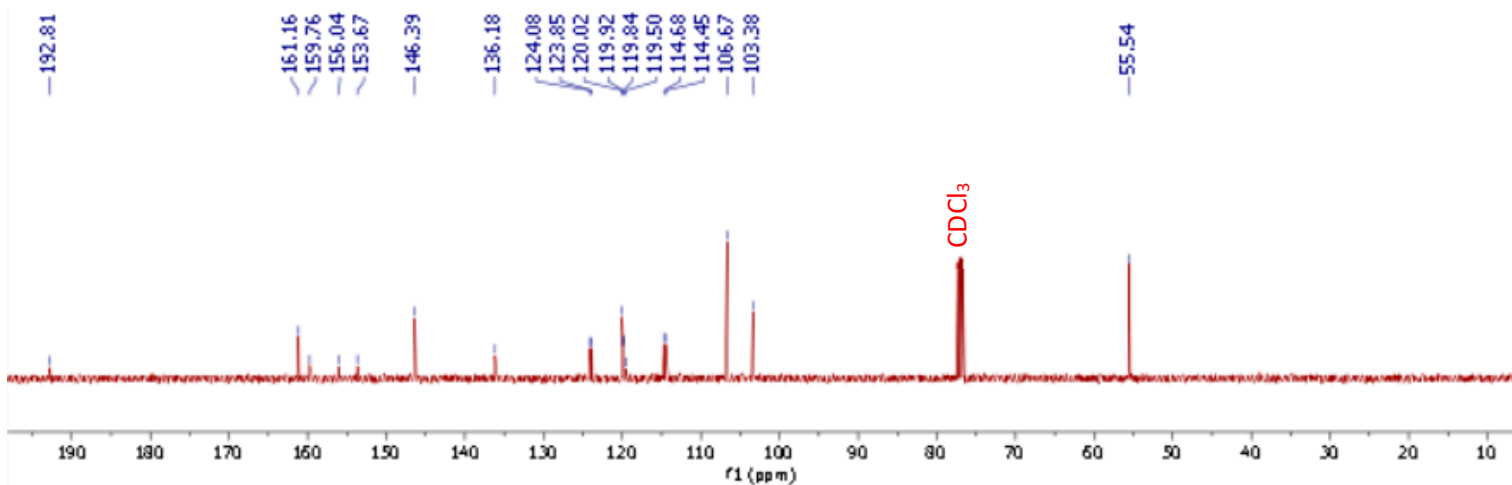


Figure S21 :  $^{13}\text{C}$  NMR of compound (5)



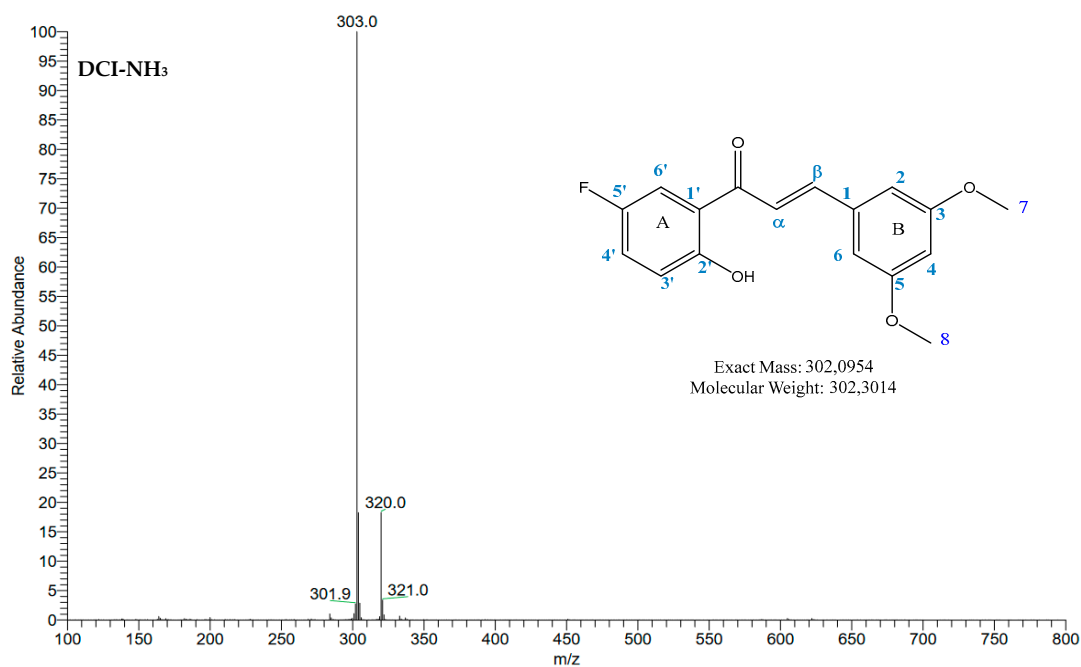


Figure S22 : MS of compound (5)

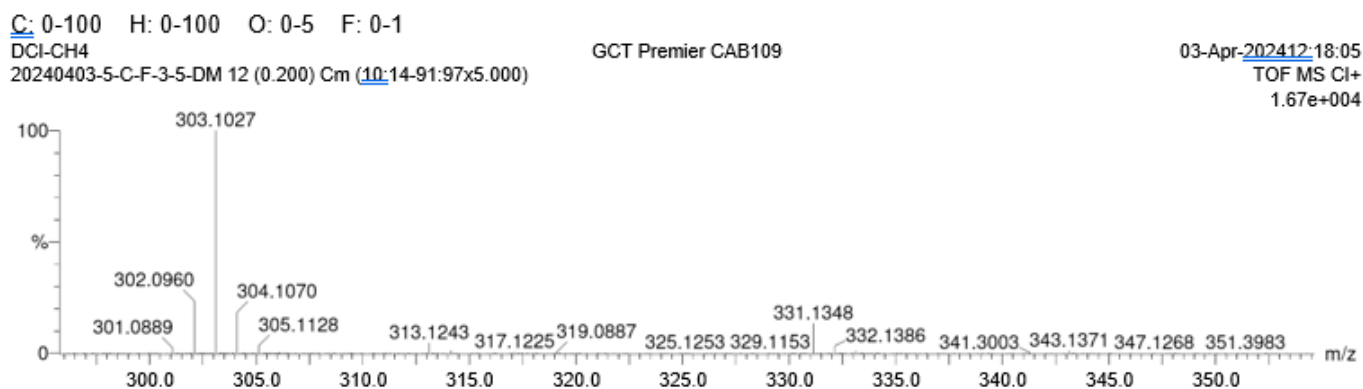


Figure S23 : HRMS of compound (5)

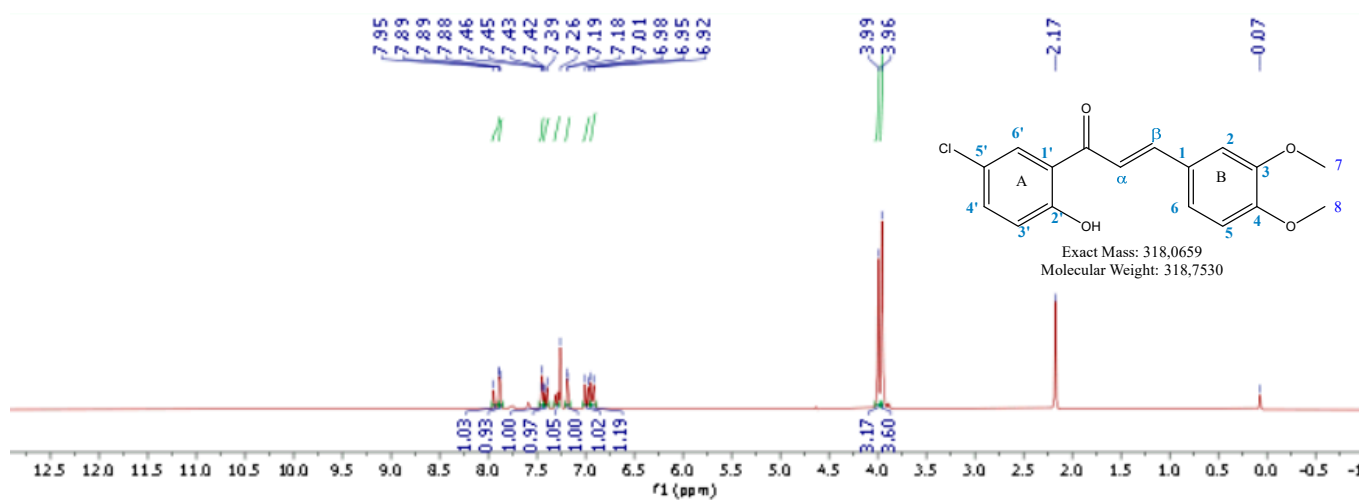


Figure S24 : <sup>1</sup>H NMR of compound (6)

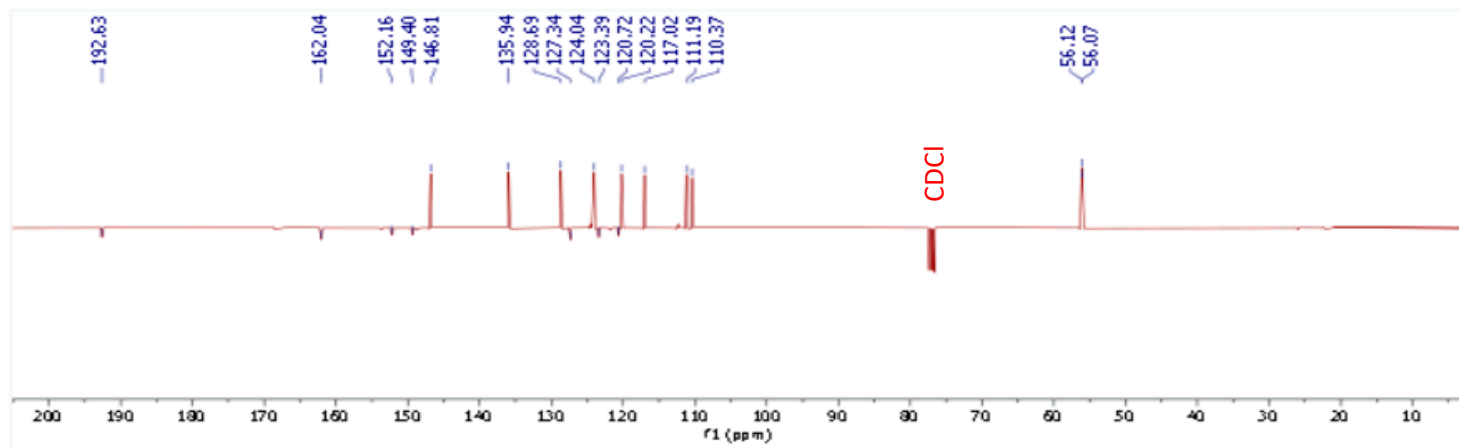


Figure S25 :  $^{13}\text{C}$  NMR of compound (6)

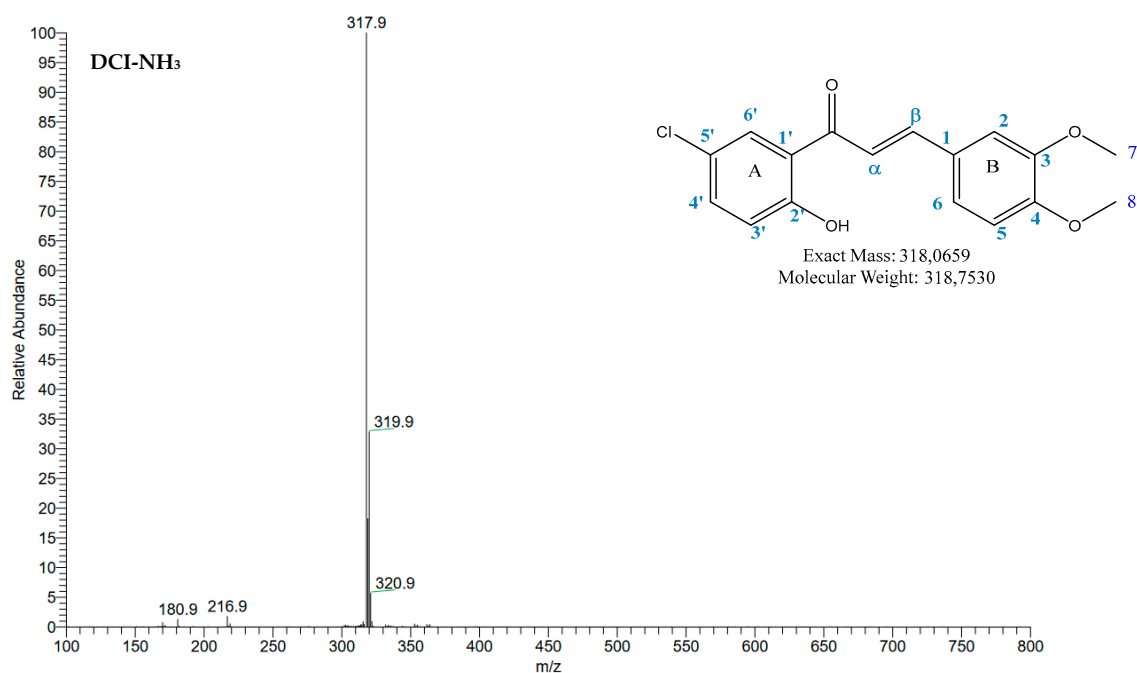


Figure S26 : MS of compound (6)

C: 0-100 H: 0-100 O: 0-5 Cl: 1-1

DCI-CH4

20240403-6-C-CP-3-4-DM 16 (0.237) Cm (12-23-71:82x5.000)

GCT Premier CAB109

03-Apr-2024 12:26:46

TOF MS Cl+

2.06e+003

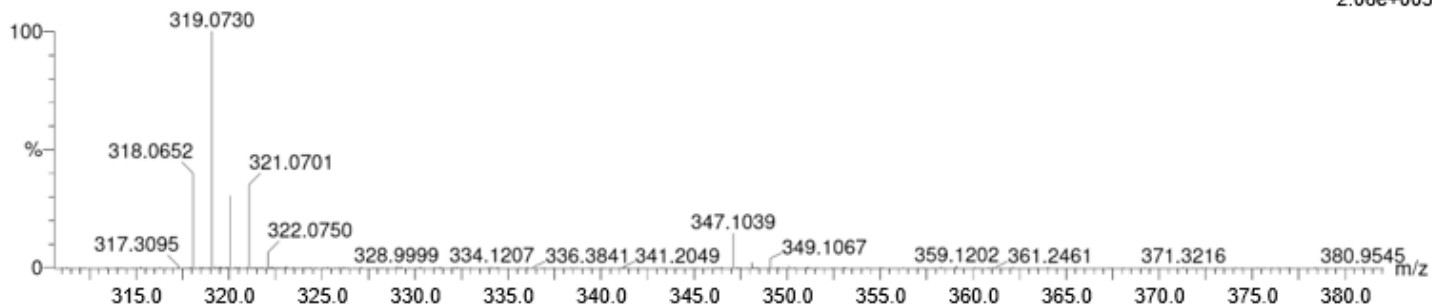


Figure S27 : HRMS of compound (6)

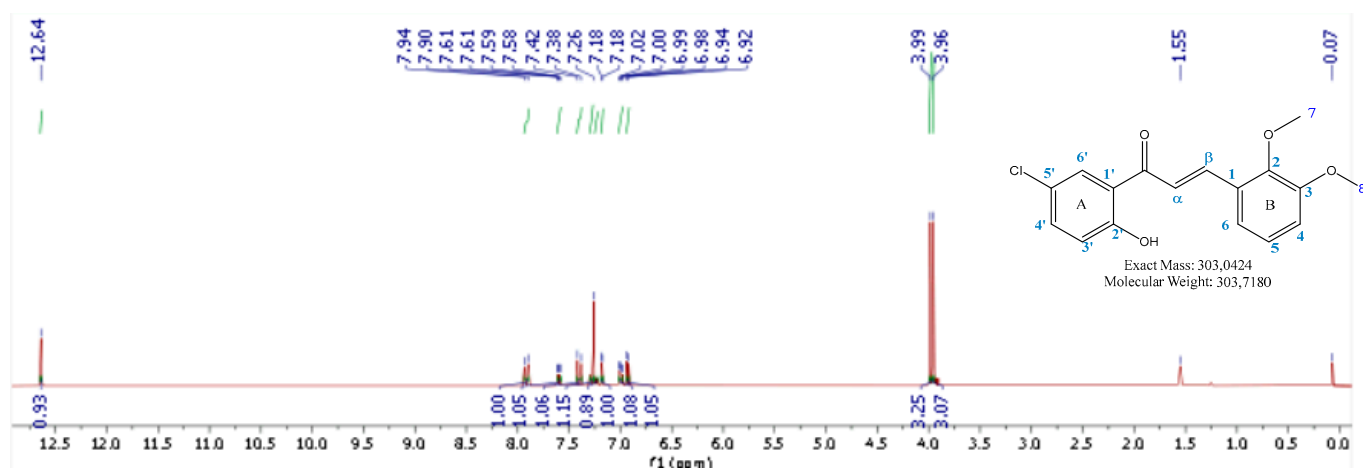


Figure S28 :  $^1\text{H}$  NMR of compound (7)

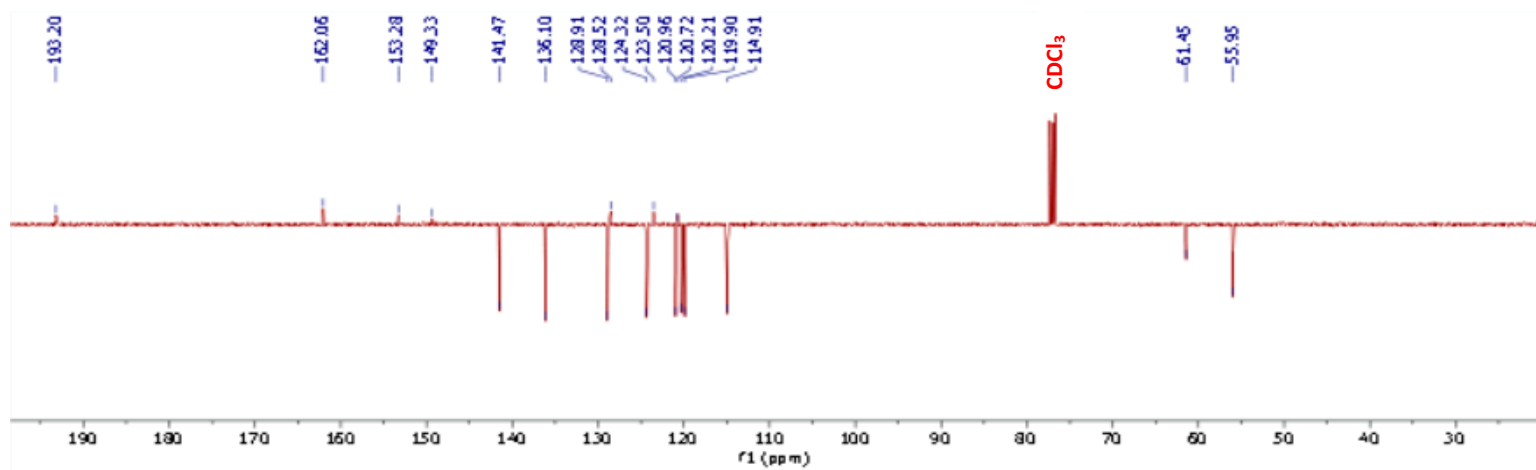


Figure S29 :  $^{13}\text{C}$  NMR of compound (7)

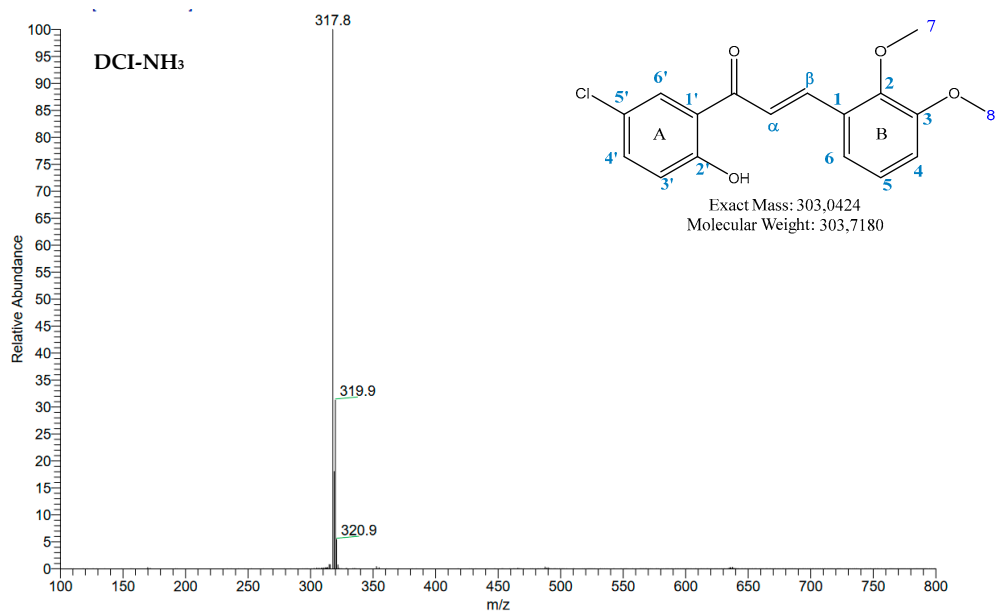


Figure S30 : MS of compound (7)

C: 0-100 H: 0-100 O: 0-5 Cl: 1-1  
 DCI-CH4  
 20240403-7-C-CL-2-3-DM 10 (0.165) Cm (6:14-68:76x5.000)

GCT Premier CAB109

03-Apr-2024 12:33:55  
 TOF MS Cl+  
 3.35e+003

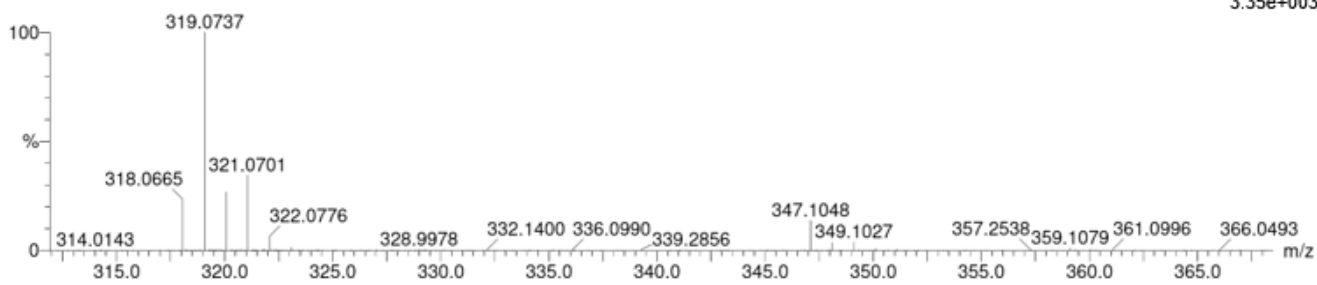


Figure S31 : HRMS of compound (7)

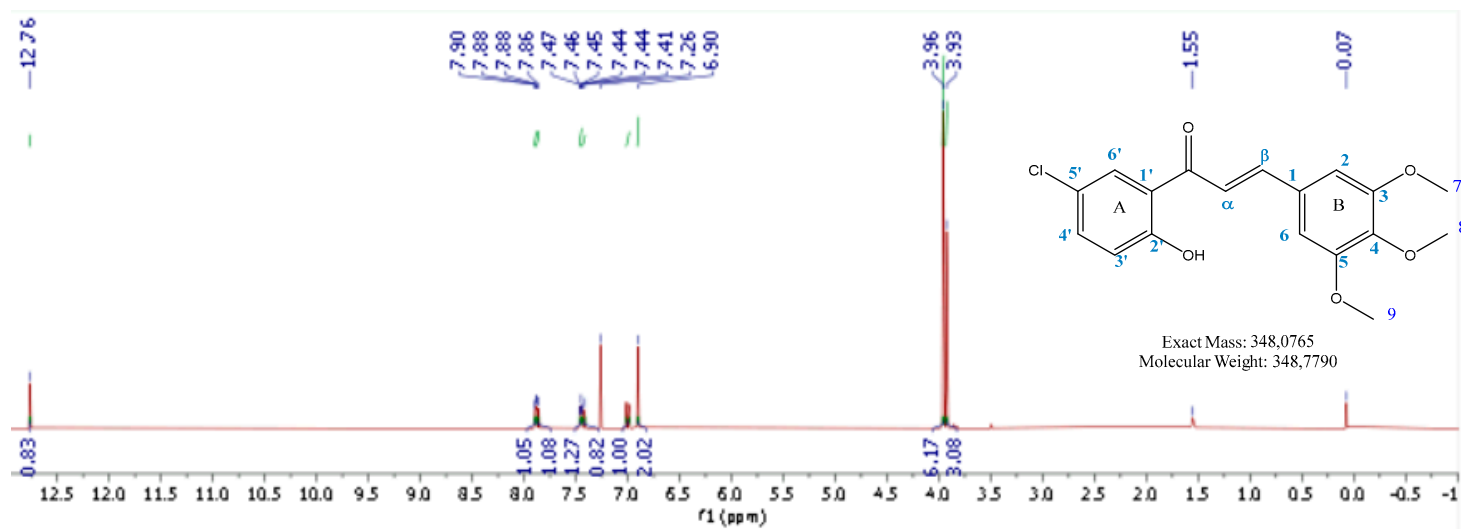


Figure S32 :  $^1\text{H}$  NMR of compound (8)

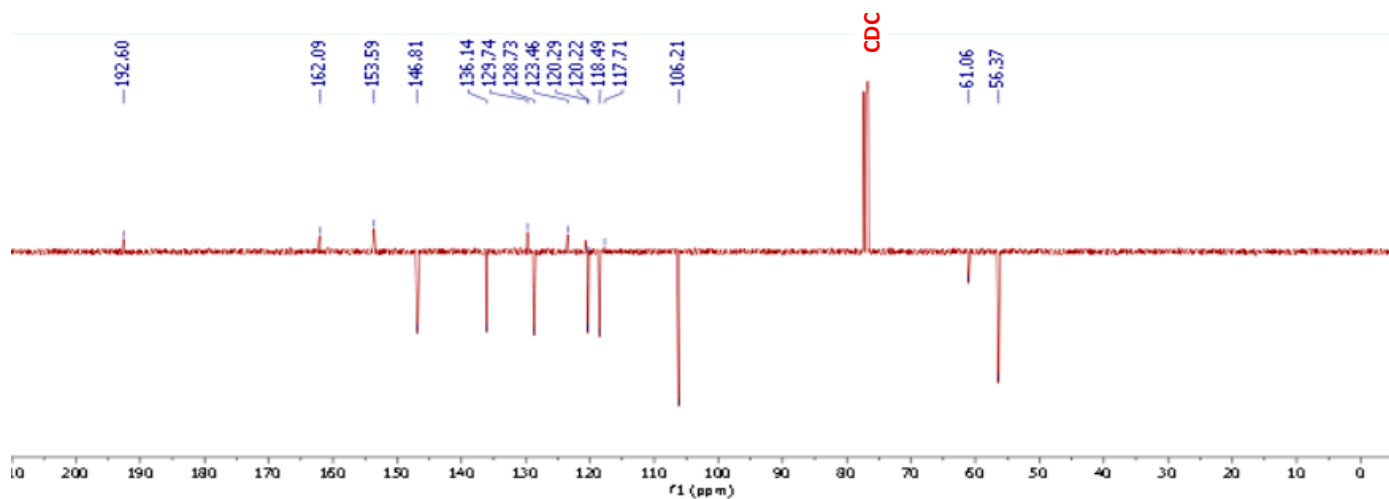


Figure S33 :  $^{13}\text{C}$  NMR of compound (8)

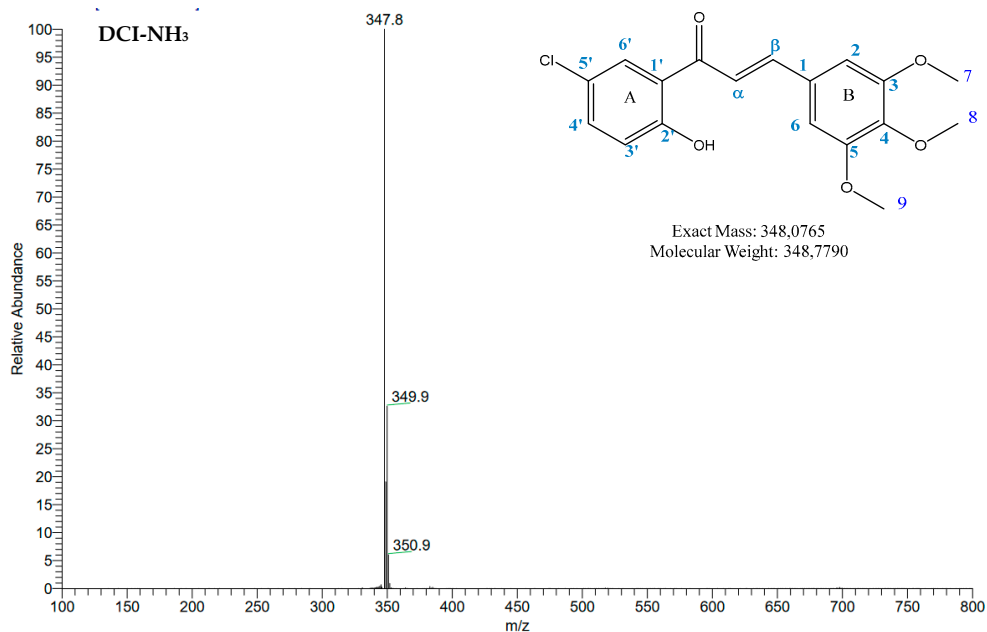


Figure S34 : MS of compound (8)

C: 0-100 H: 0-100 O: 0-5 Cl: 1-1  
DCI-CH<sub>4</sub>

GCT Premier CAB109

03-Apr-  
2024 12:40:08  
TOF MS Cl+  
1.15e+004

20240403-8-C-CL-3-4-5-TM 15 (0.244) Cm (14:18-58:64x5.000)

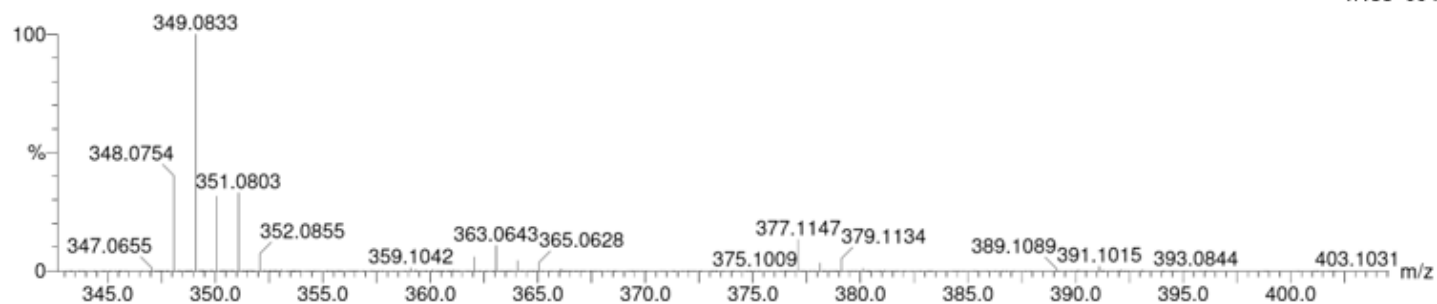


Figure S35 : HRMS of compound (8)

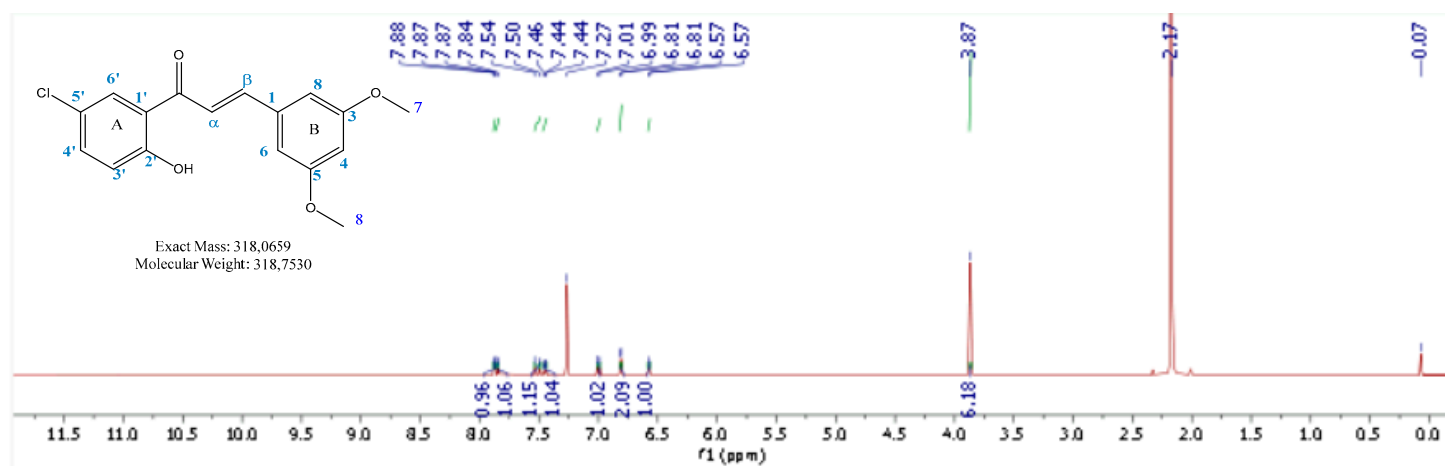


Figure S36 : <sup>1</sup>H NMR of compound (9)

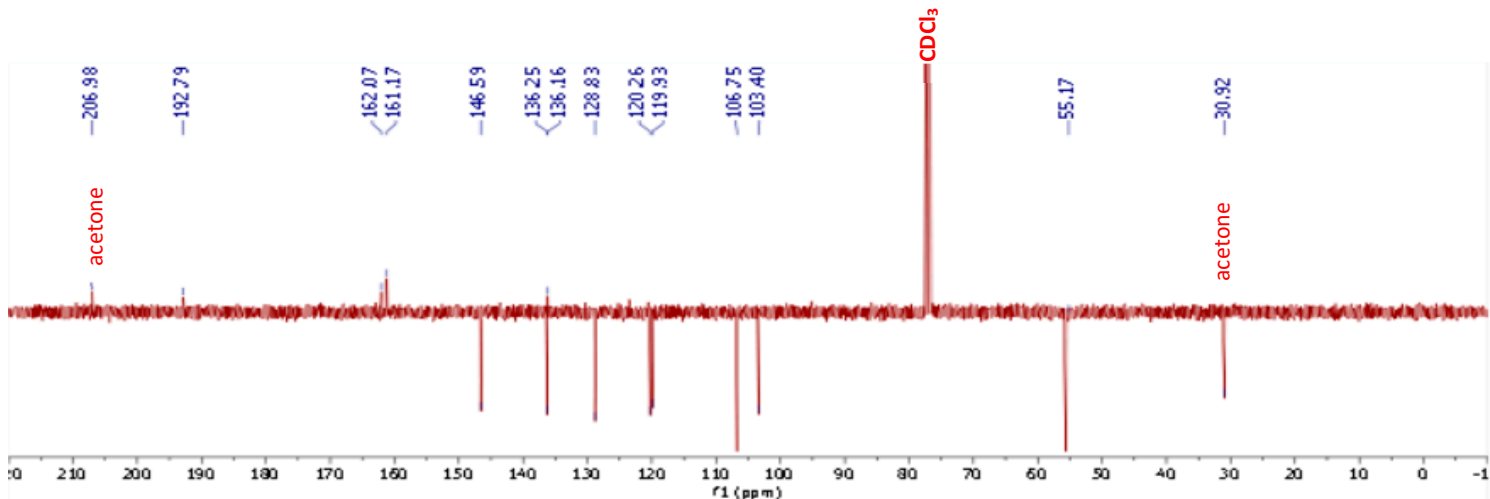


Figure S37 :  $^{13}\text{C}$  NMR of compound (9)

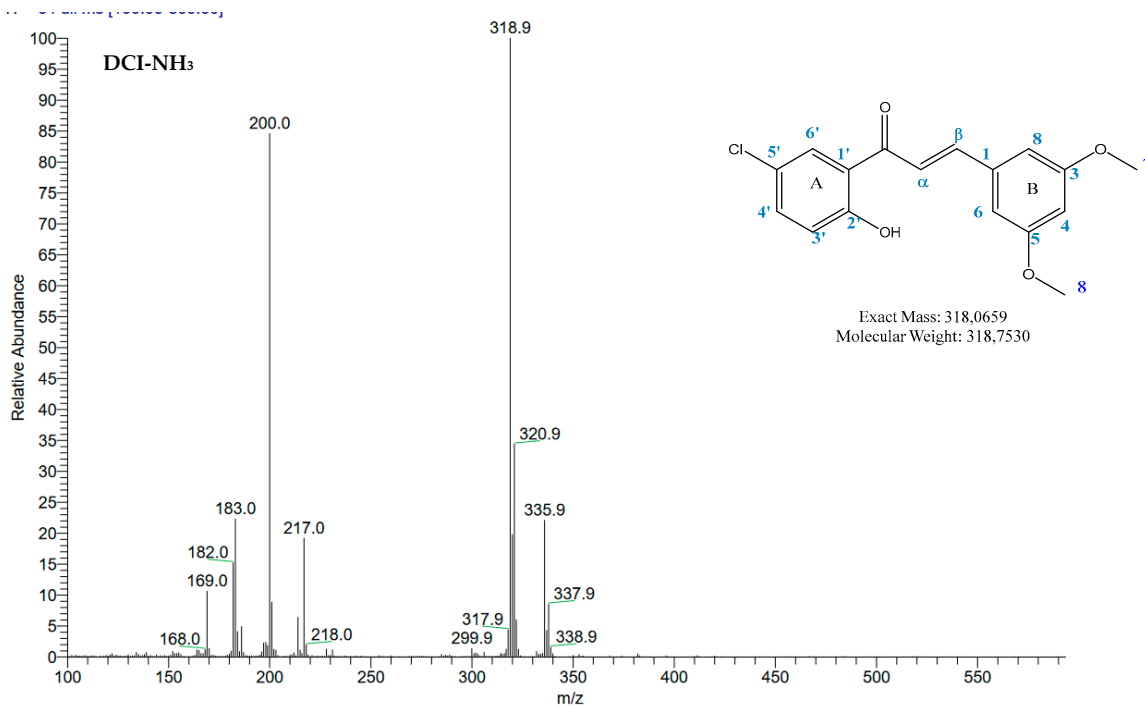


Figure S38 : MS of compound (9)

C: 0-100 H: 0-100 O: 0-5 Cl: 1-1

DCI-CH4

20240403-9-C-CL-3-5-dM 15 (0.249) Cm (11:17-96:103x5.000)

GCT Premier CAB109

03-Apr-2024 12:47:40

TOF MS Cl+

2.15e+004

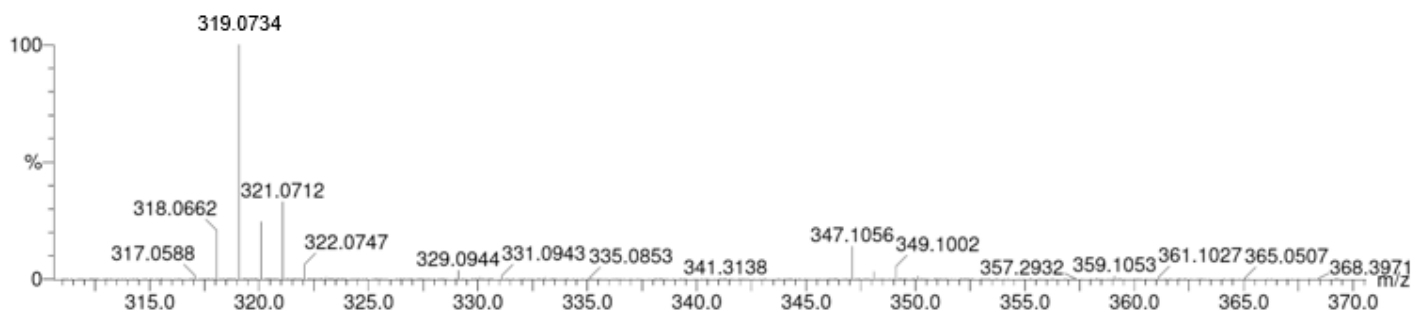


Figure S39 : HRMS of compound (9)

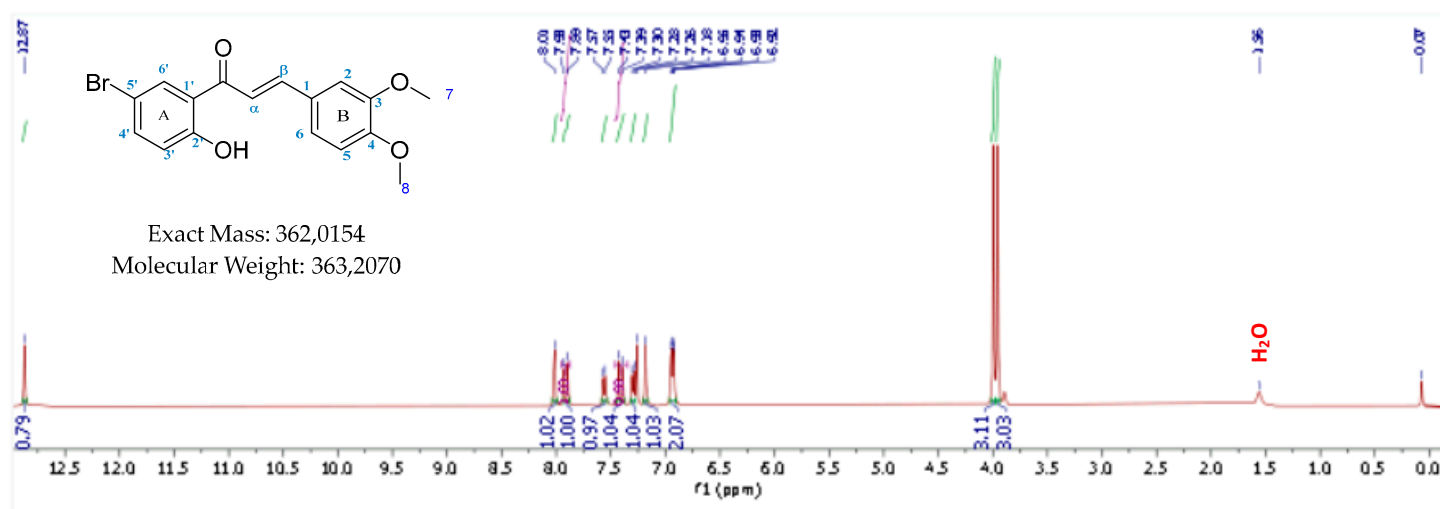


Figure S40 : <sup>1</sup>H NMR of compound (10)

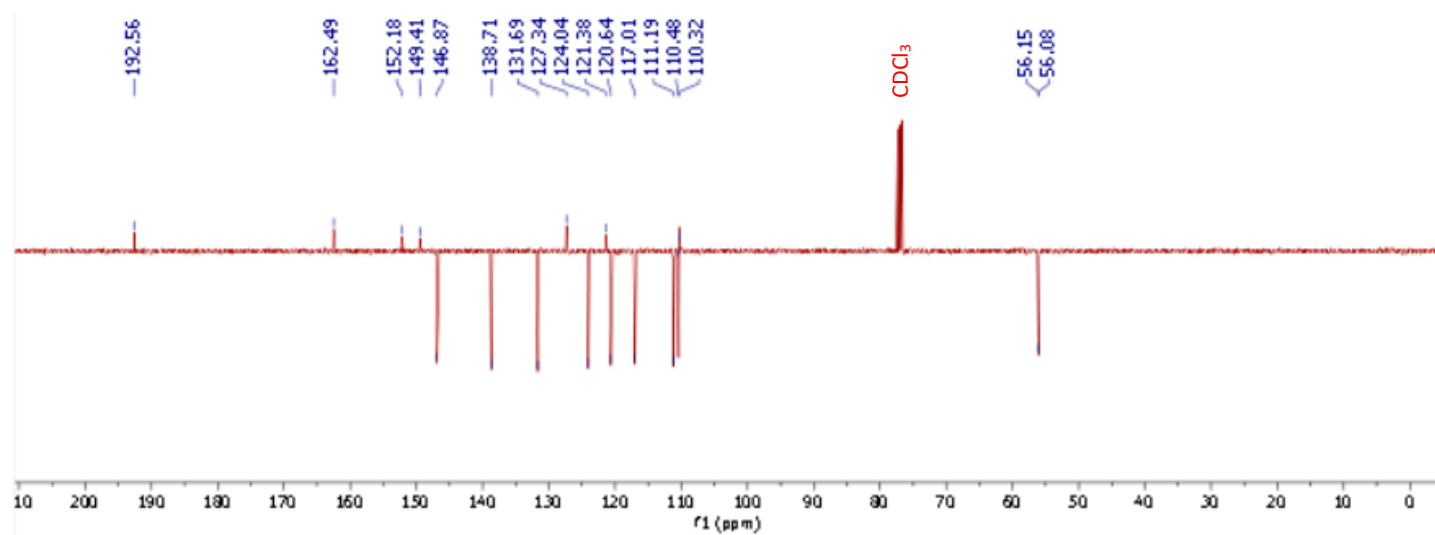


Figure S41 : <sup>13</sup>C NMR of compound (10)

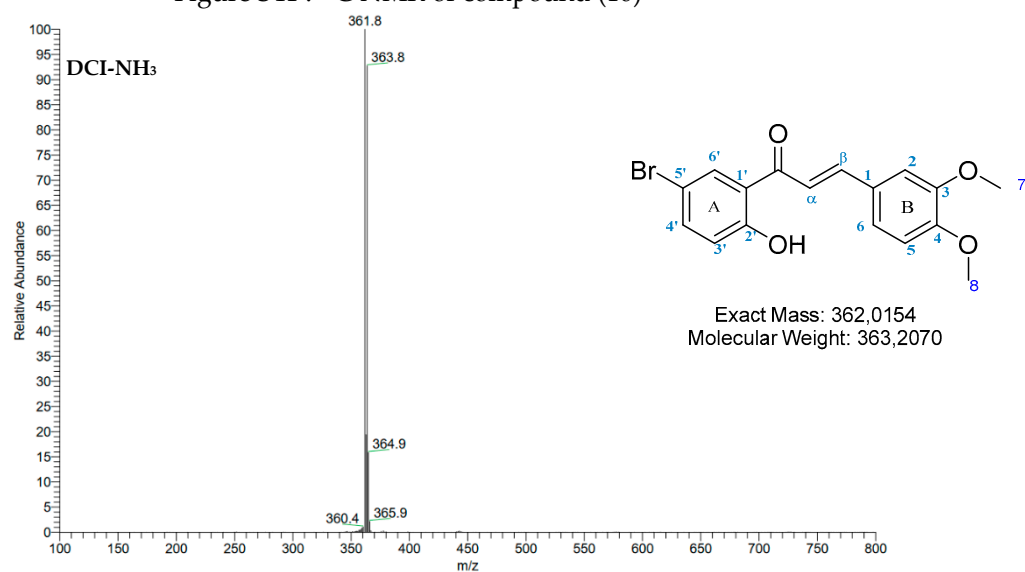


Figure S42 : MS of compound (10)

C: 0-100 H: 0-100 O: 0-5 Br: 1-1

DCI-CH4

20240403-10-C-BR-3-4-DM 15 (0.234) Cm (14:19-68:72x5.000)

GCT Premier CAB109

03-Apr-2024 12:54:36

TOF MS CI+

1.35e+003

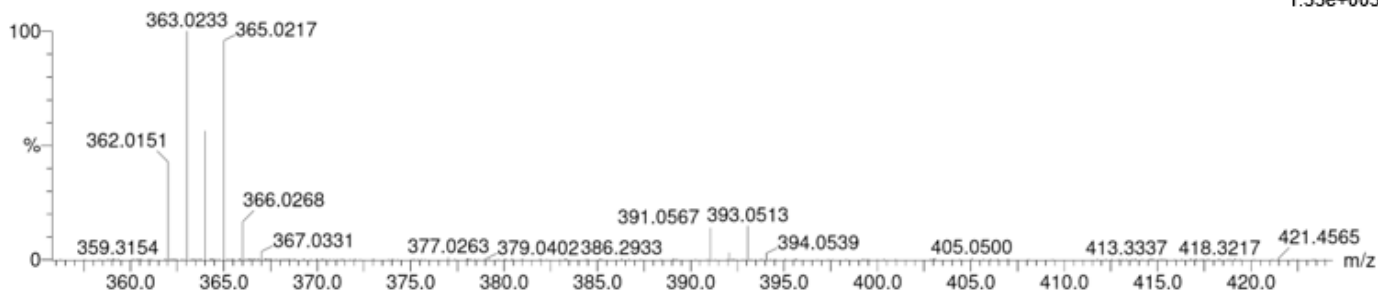


Figure S43 : HRMS of compound (10)

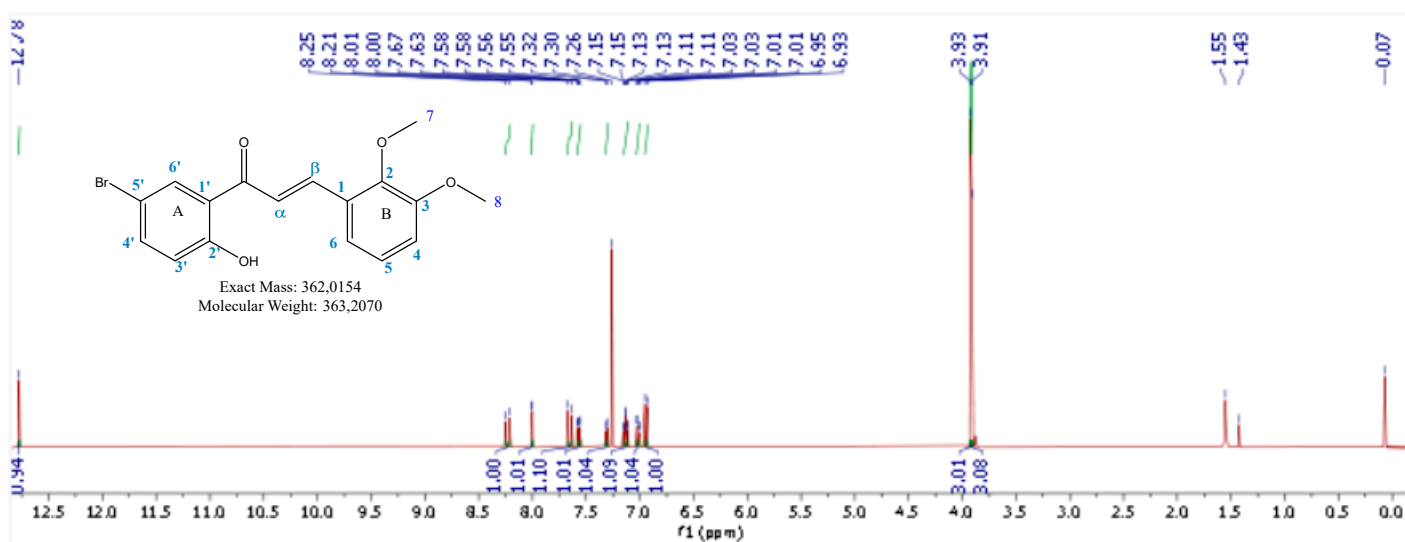


Figure S44 : <sup>1</sup>H NMR of compound (11)

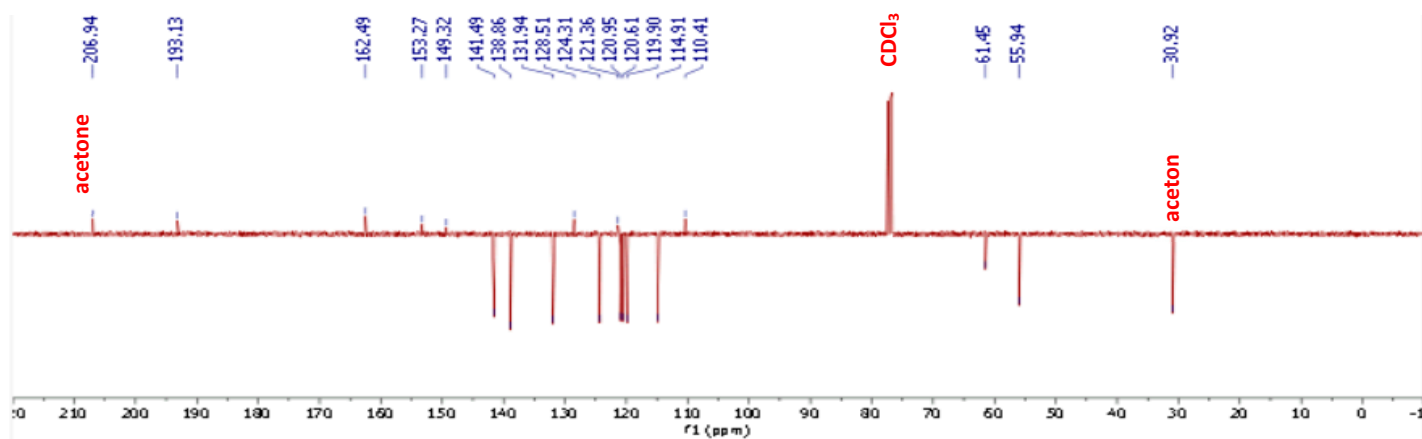


Figure S45 : <sup>13</sup>C NMR of compound (11)





Figure S46 : MS of compound (11)

C: 0-100 H: 0-100 O: 0-5 Br: 1-1

DCI-CH<sub>4</sub>

20240403-11-C-BR-2-3-DM 14 (0.232) Cm (10:15-70:77x5.000)

GCT Premier CAB109

03-Apr-2024 13:00:48

TOF MS CI+

8.06e+003

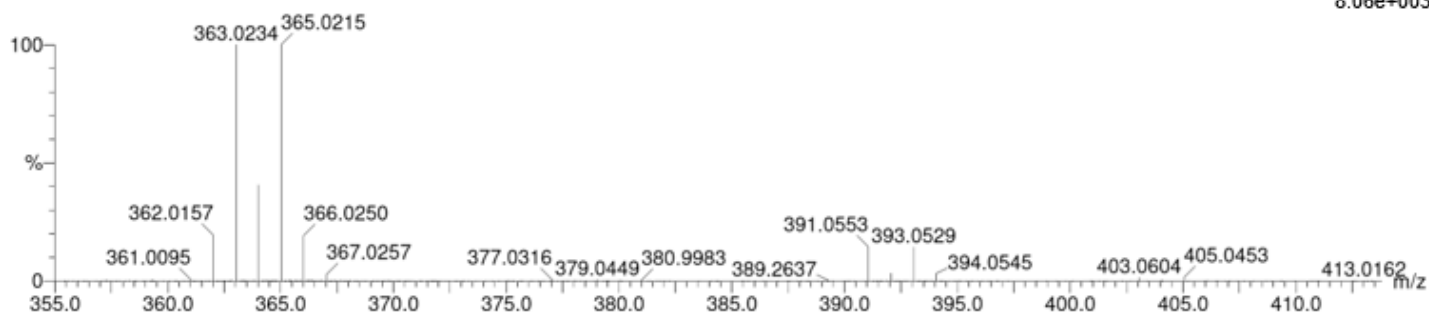


Figure S47 : MS of compound (11)

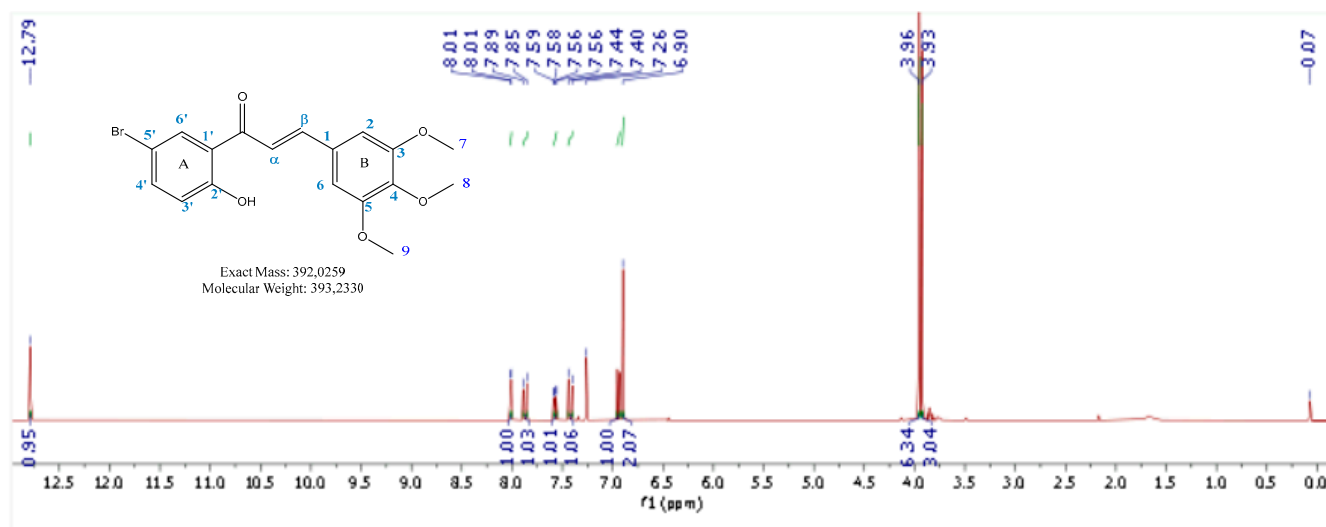


Figure S48 : <sup>1</sup>H NMR of compound (12)

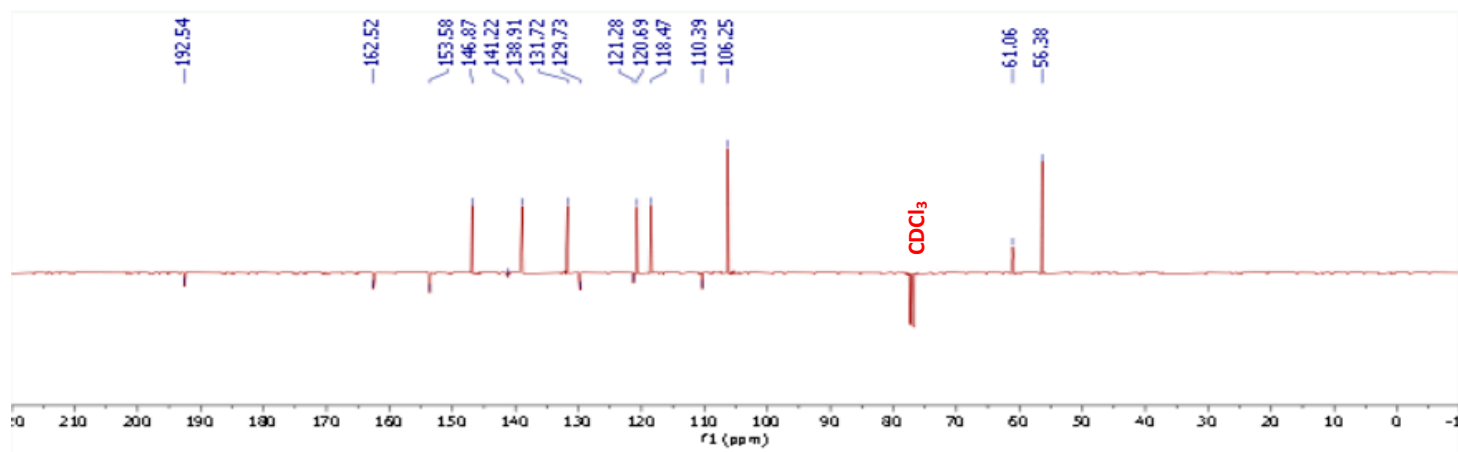


Figure S49 :  $^{13}\text{C}$  NMR of compound (12)

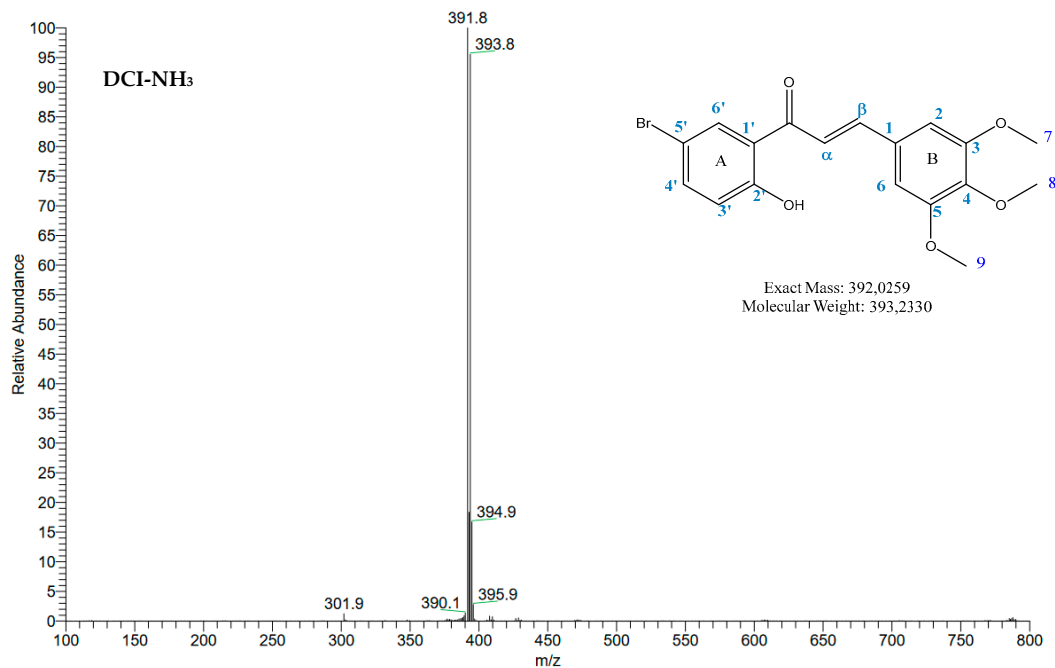


Figure S50 : MS of compound (12)

C: 0-100 H: 0-100 O: 0-5 Br: 1-1  
DCI-CH4

GCT Premier CAB109

03-Apr-  
2024 13:07:24

20240403-12 48 (0.785) Cm (43-49-94:102x5.000)

TOF MS Cl+

1.08e+004

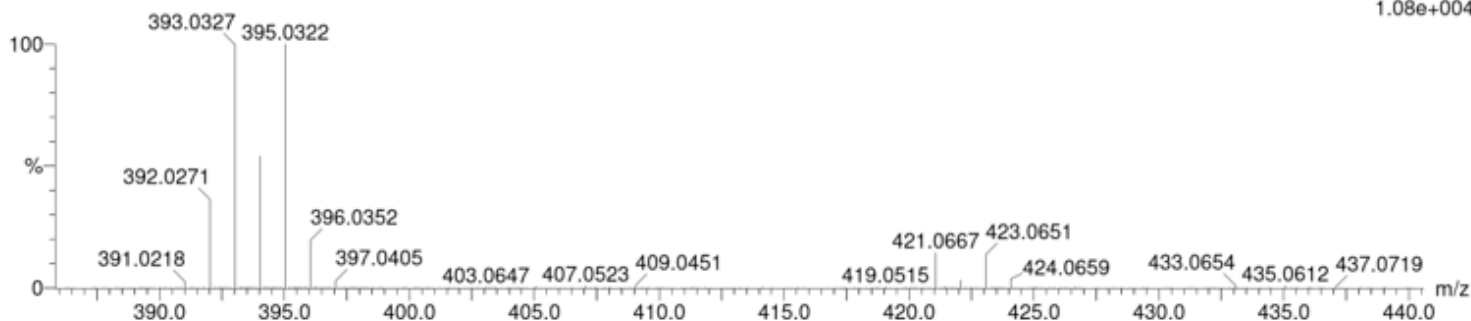


Figure S51 : HRMS of compound (12)

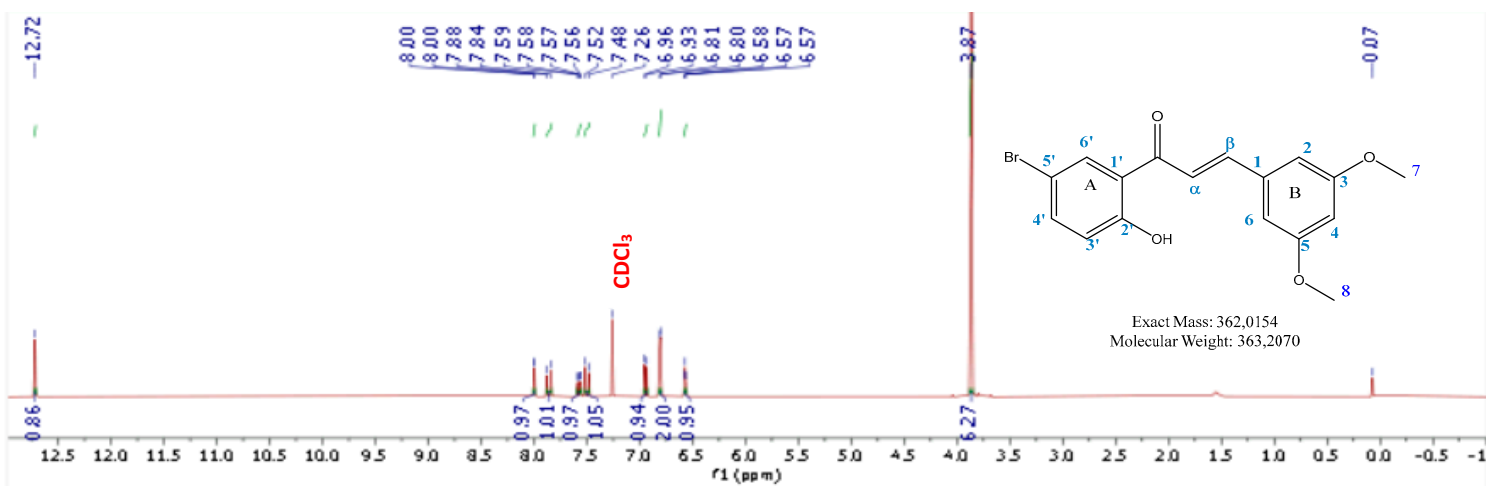


Figure S52 : <sup>1</sup>H NMR of compound (13)

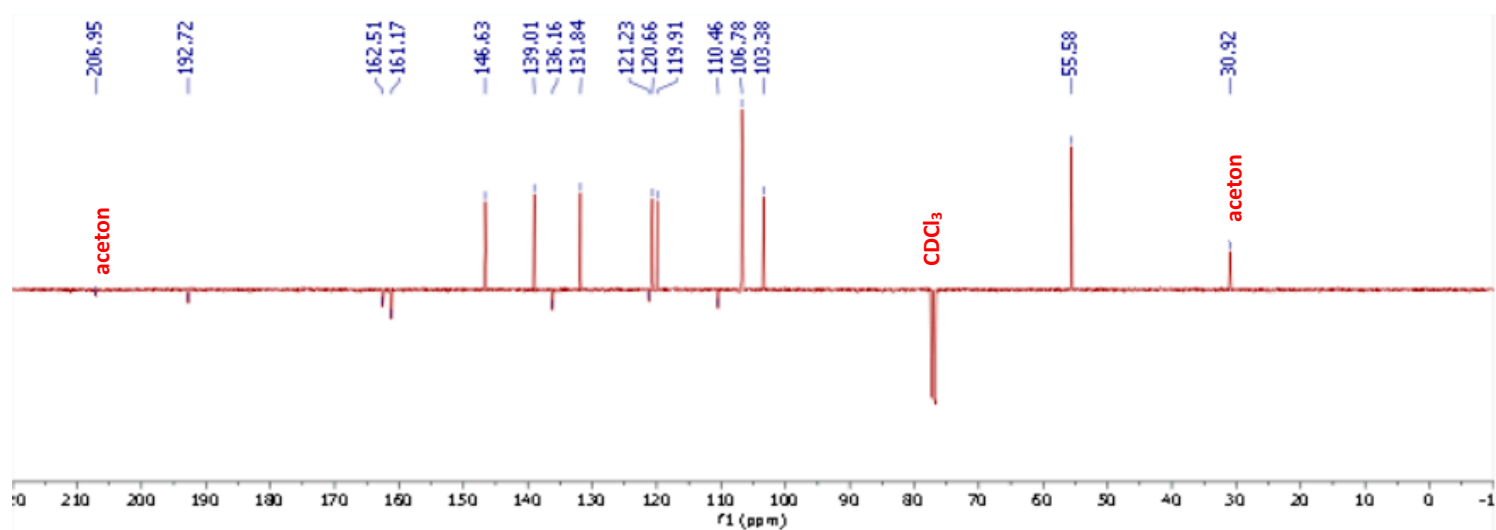


Figure S53 : <sup>13</sup>C NMR of compound (13)



Figure S54 : MS of compound (13)

C: 0-100 H: 0-100 O: 0-5 Br: 1-1

DCI-CH4

20240403-13-C-BR-3-5-DM- 16 (0.252) Cm (14:19-85:90x5.000)

GCT Premier CAB109

03-Apr-2024 13:14:06

TOF MS CI+

1.33e+004

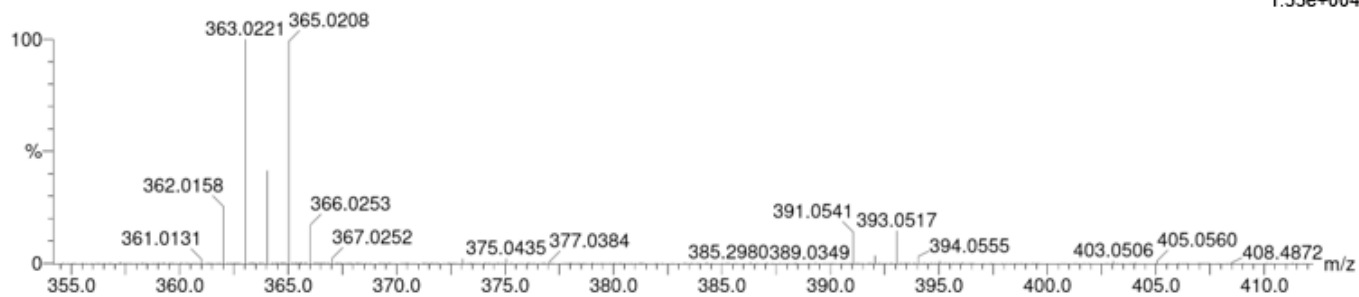


Figure S55 : MS of compound (13)

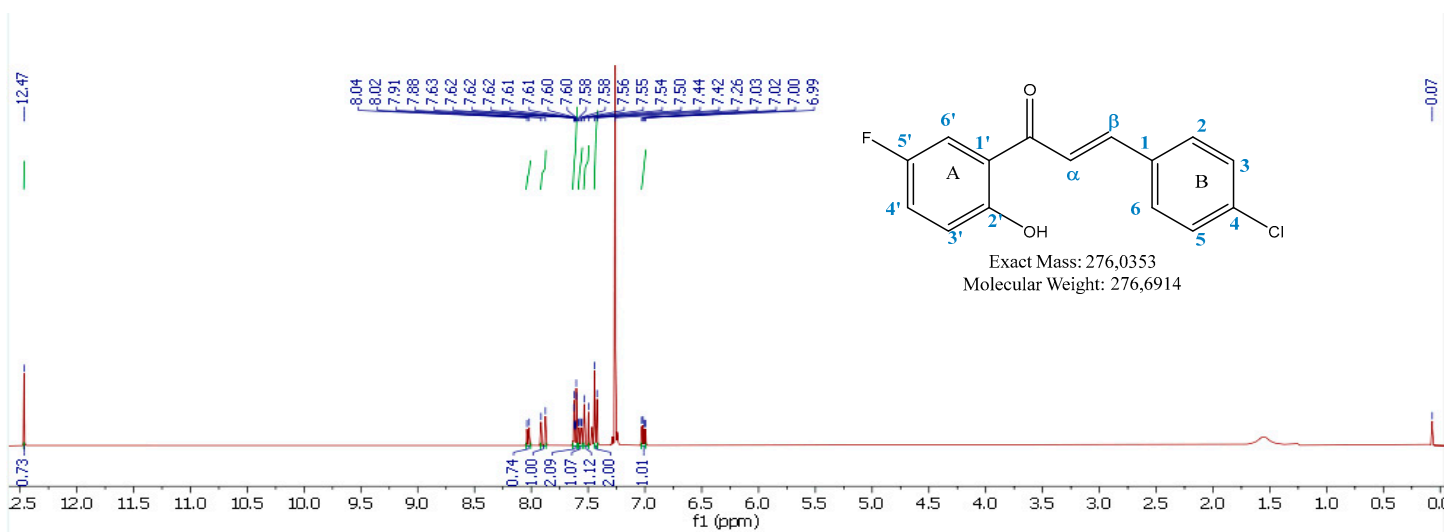


Figure S56 :  $^1\text{H}$  NMR of compound (14)

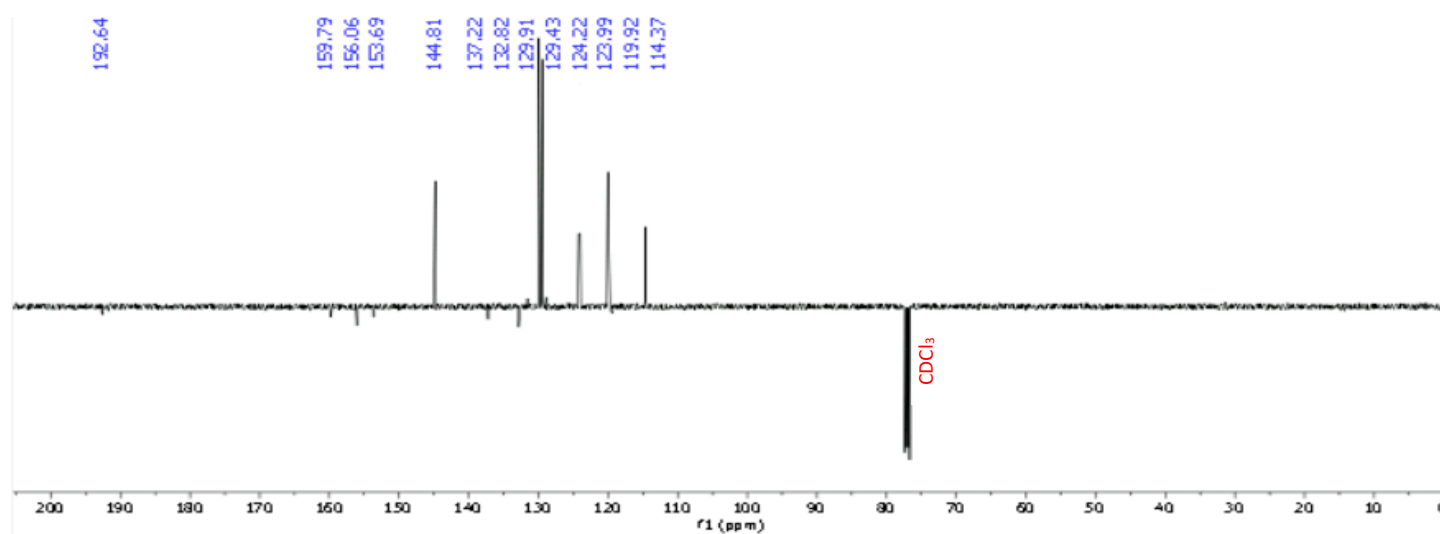


Figure S57 :  $^{13}\text{C}$  NMR of compound (14)

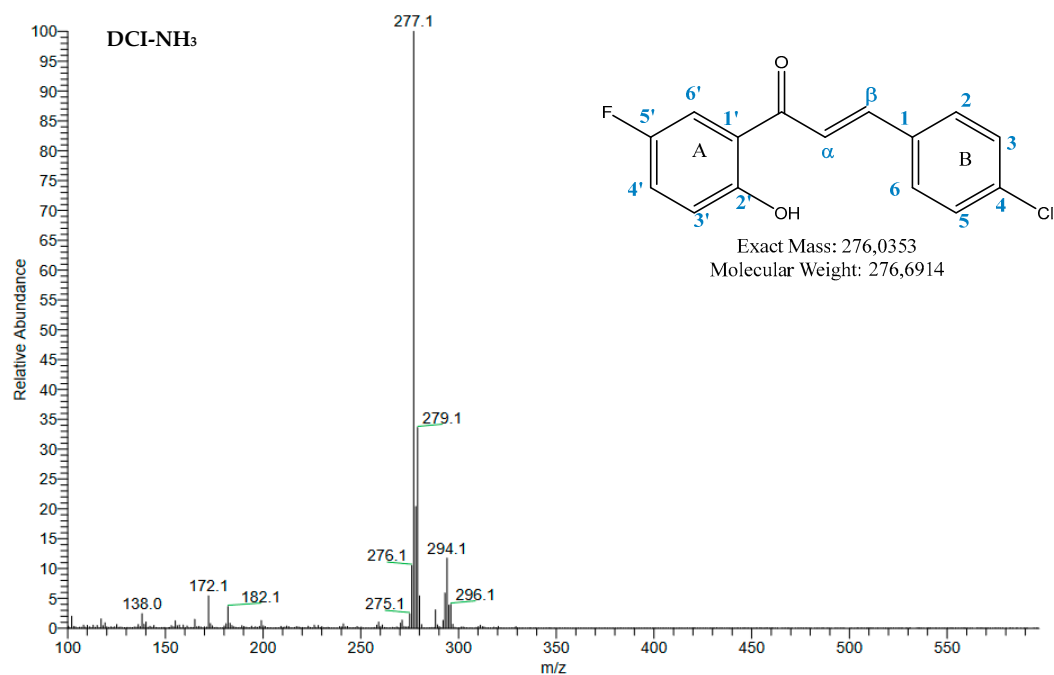


Figure S58 : MS of compound (14)

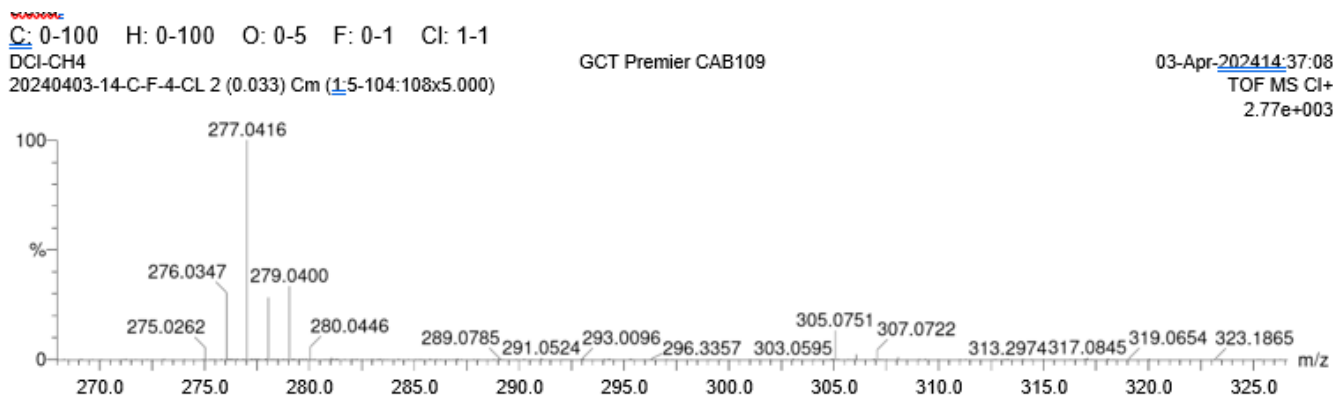


Figure S59 : HRMS of compound (14)

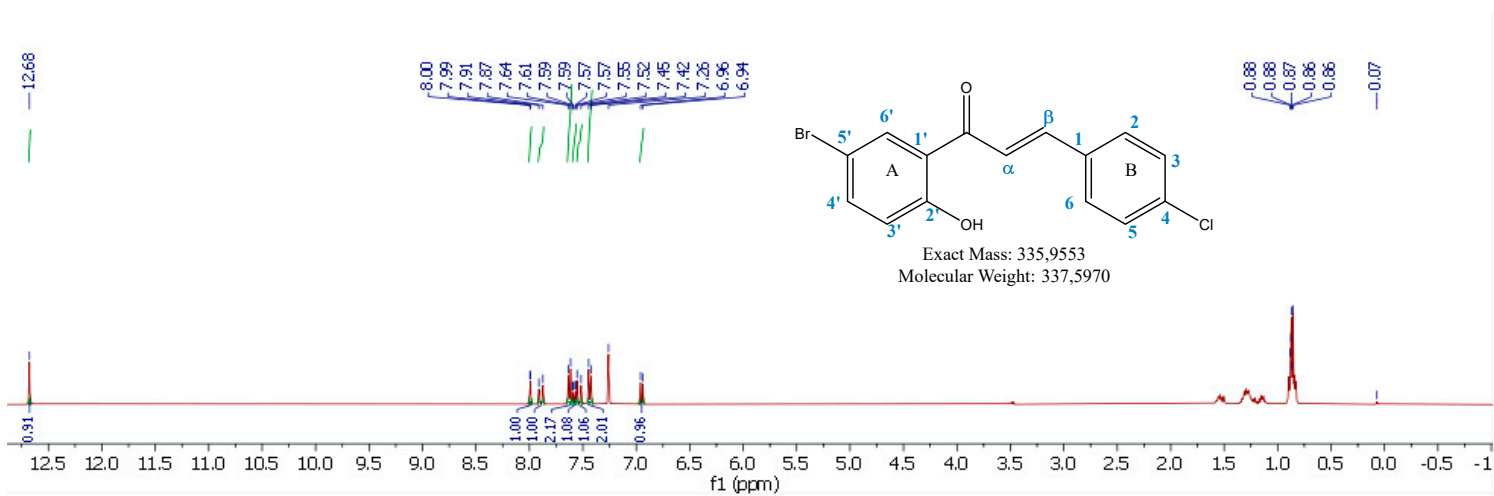


Figure S60 : <sup>1</sup>H NMR of compound (15)

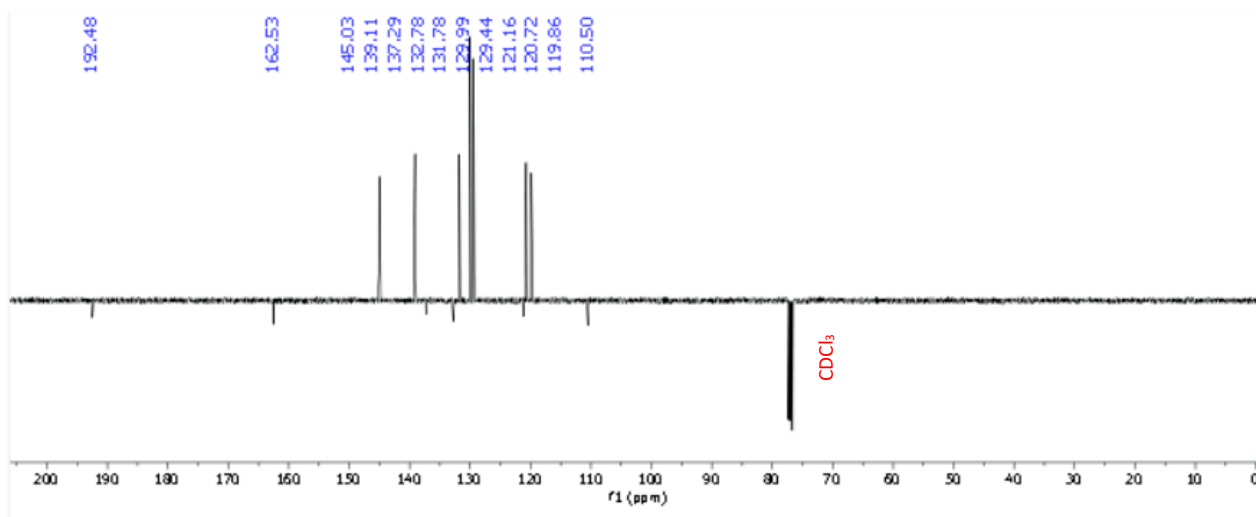


Figure S61 : <sup>13</sup>C NMR of compound (15)

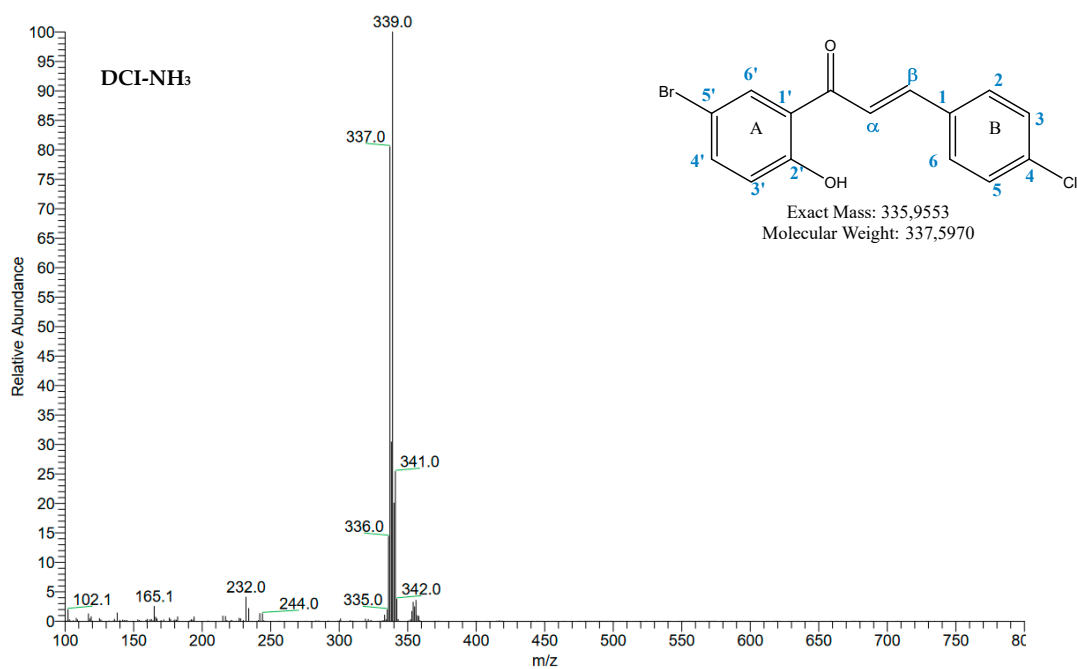


Figure S62 : MS of compound (15)

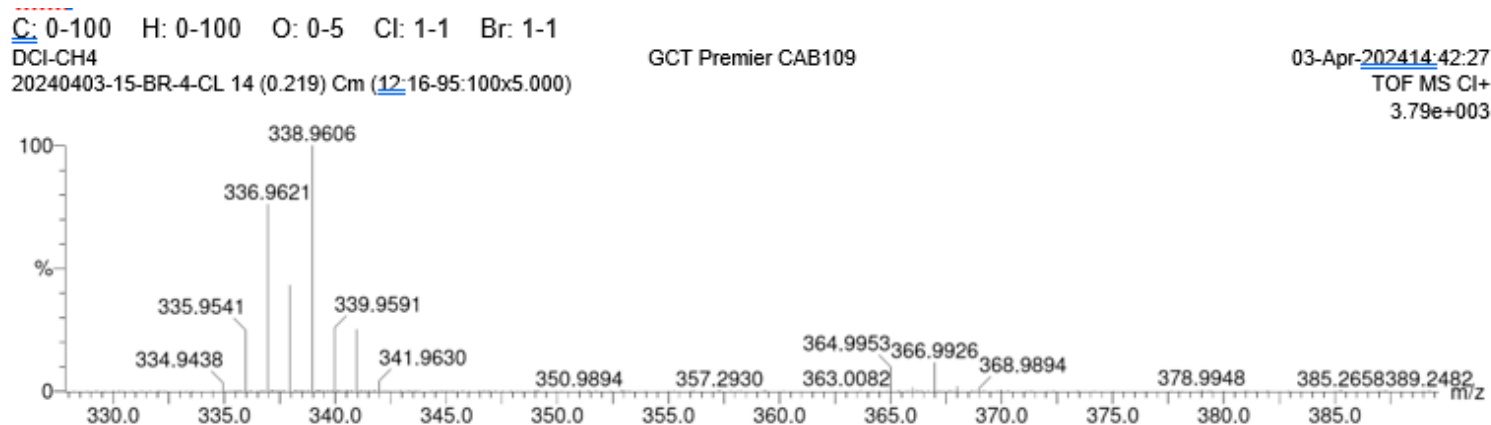


Figure S63 : HRMS of compound (15)

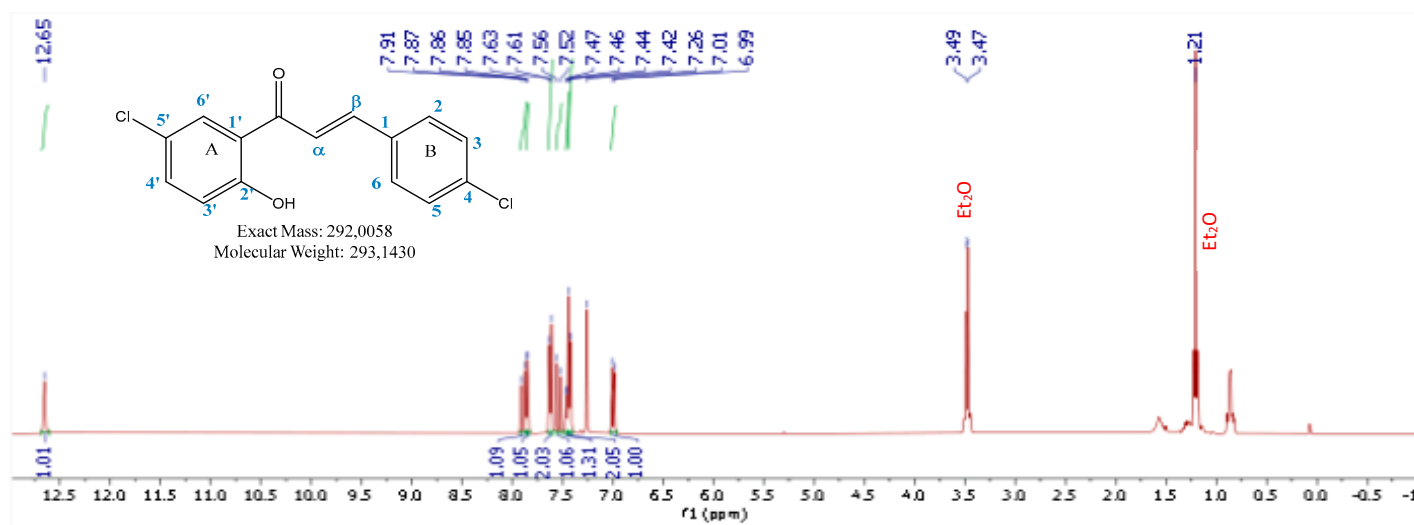


Figure S64 :  $^1\text{H}$  NMR of compound (16)

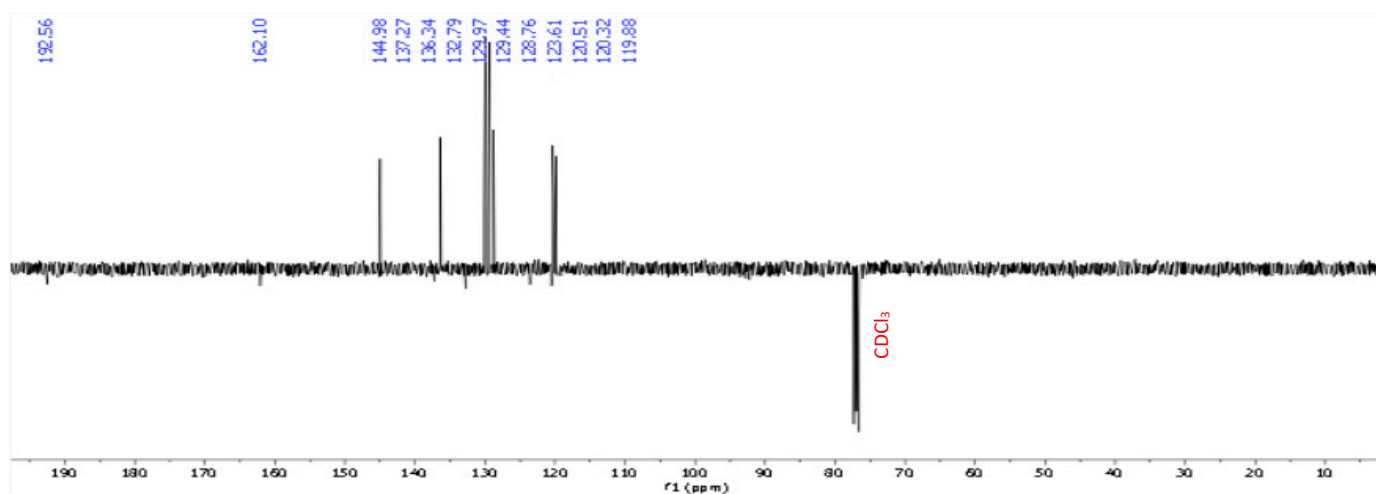


Figure S65 :  $^{13}\text{C}$  NMR of compound (16)

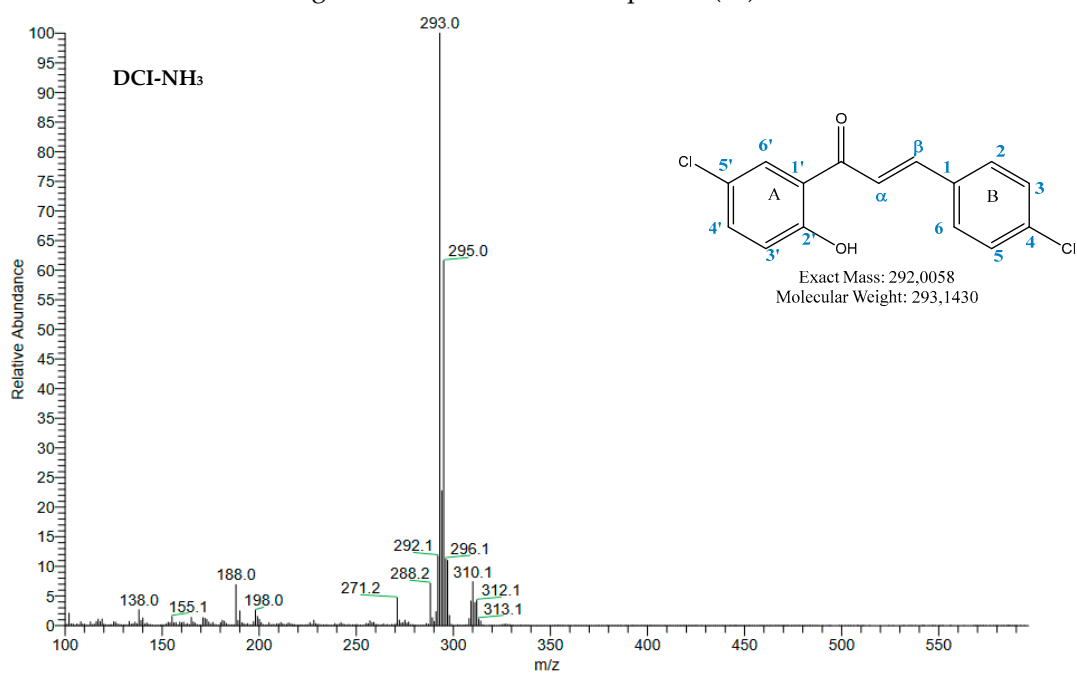


Figure S66 : MS of compound (16)

C: 0-100 H: 0-100 O: 0-5 Cl: 2-2  
 DCI-CH4  
 20240403-16-CL-4-CL 13 (0.217) Cm (8:15-59:71x5.000)

GCT Premier CAB109

03-Apr-2024 14:47:30  
 TOF MS CI+  
 2.14e+004

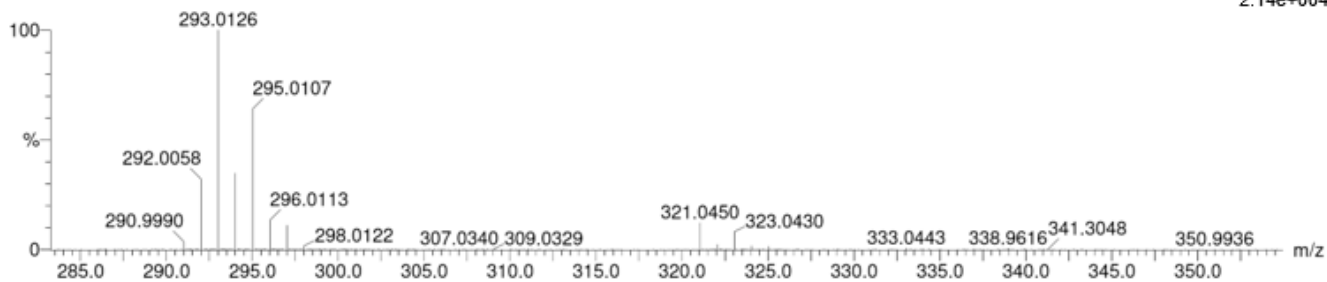


Figure S67 : HRMS of compound (16)

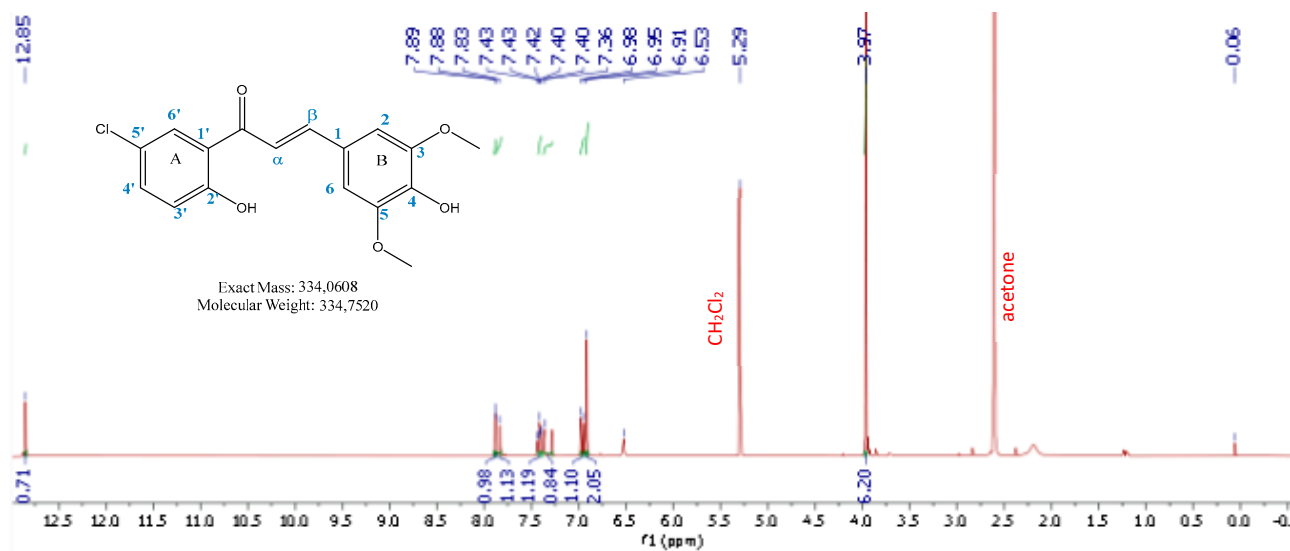


Figure S68 : <sup>1</sup>H NMR of compound (17)

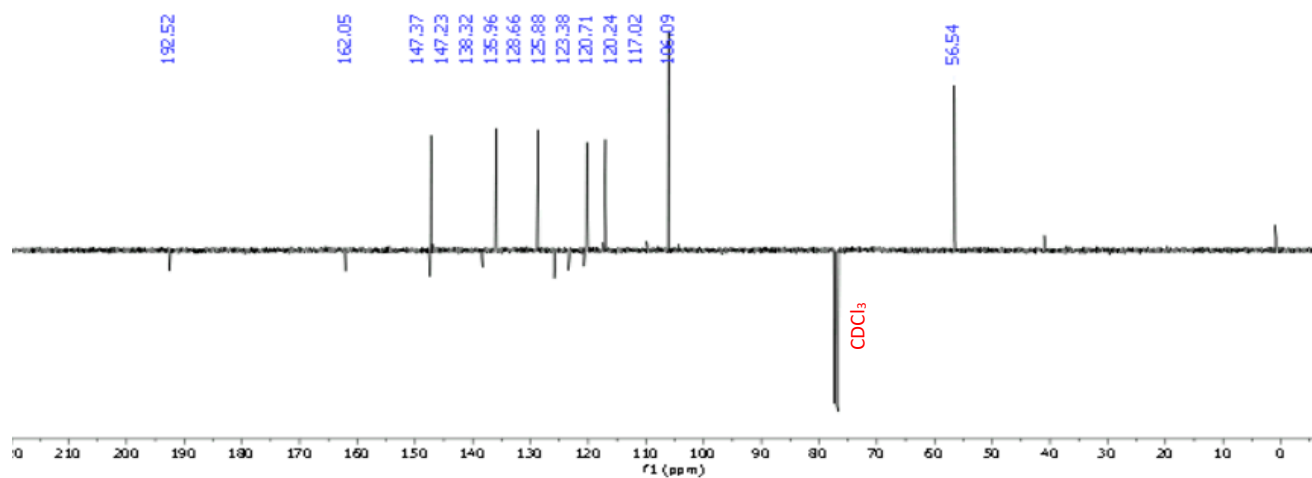


Figure S69 : <sup>13</sup>C NMR of compound (17)



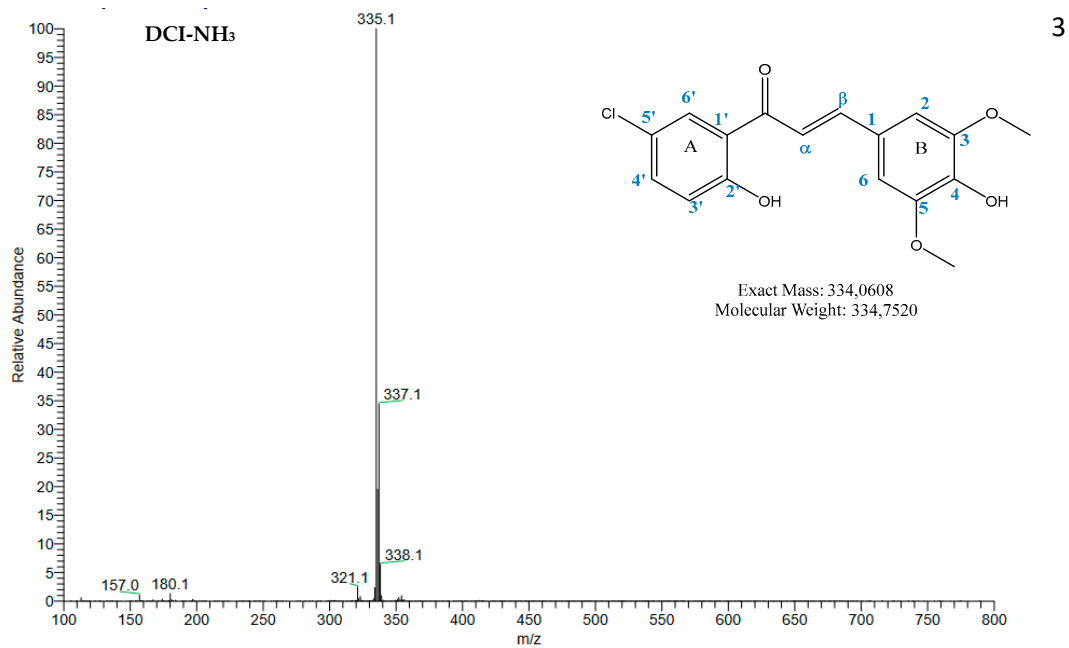


Figure S70 : MS of compound (17)

C: 0-100 H: 0-100 O: 0-5 Cl: 1-1

DCI-CH<sub>4</sub>

GCT Premier CAB109

20240403-17-C-CL-3-5-DM-4-OH 19 (0.317) Cm (16:21-87:95x5.000)

03-Apr-2024 14:51:13

TOF MS Cl<sup>+</sup>

7.72e+003

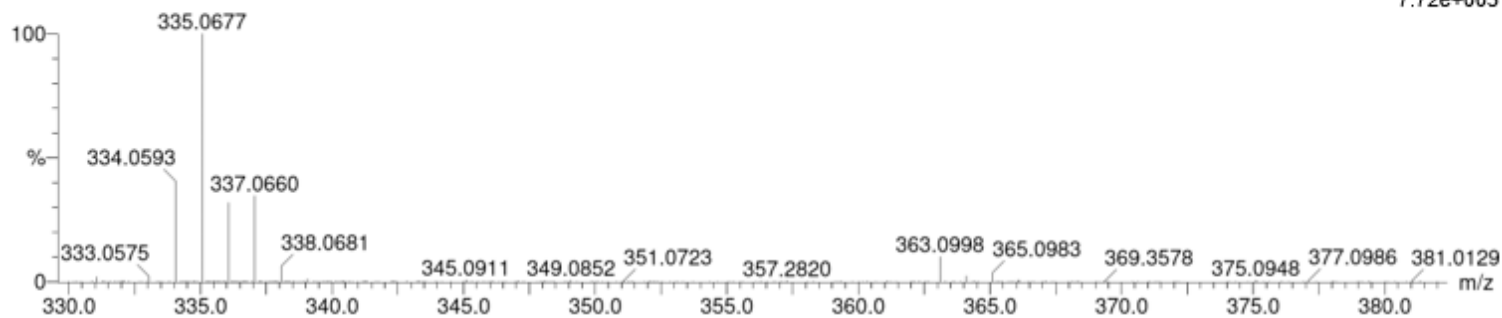


Figure S71 : HRMS of compound (17)

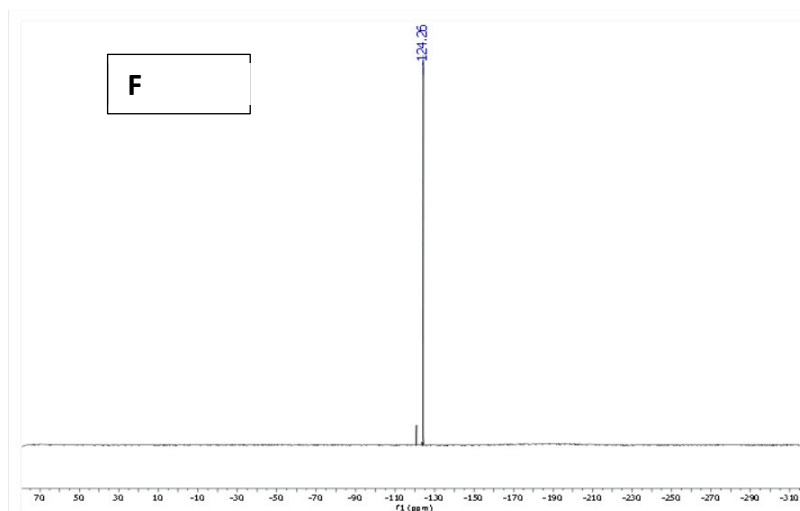


Figure S72 : <sup>19</sup>F NMR