

APPENDIX D SPECTRAL DATA OF 1,5,7-trimethoxyphenanthrene-2,6-diol (12)

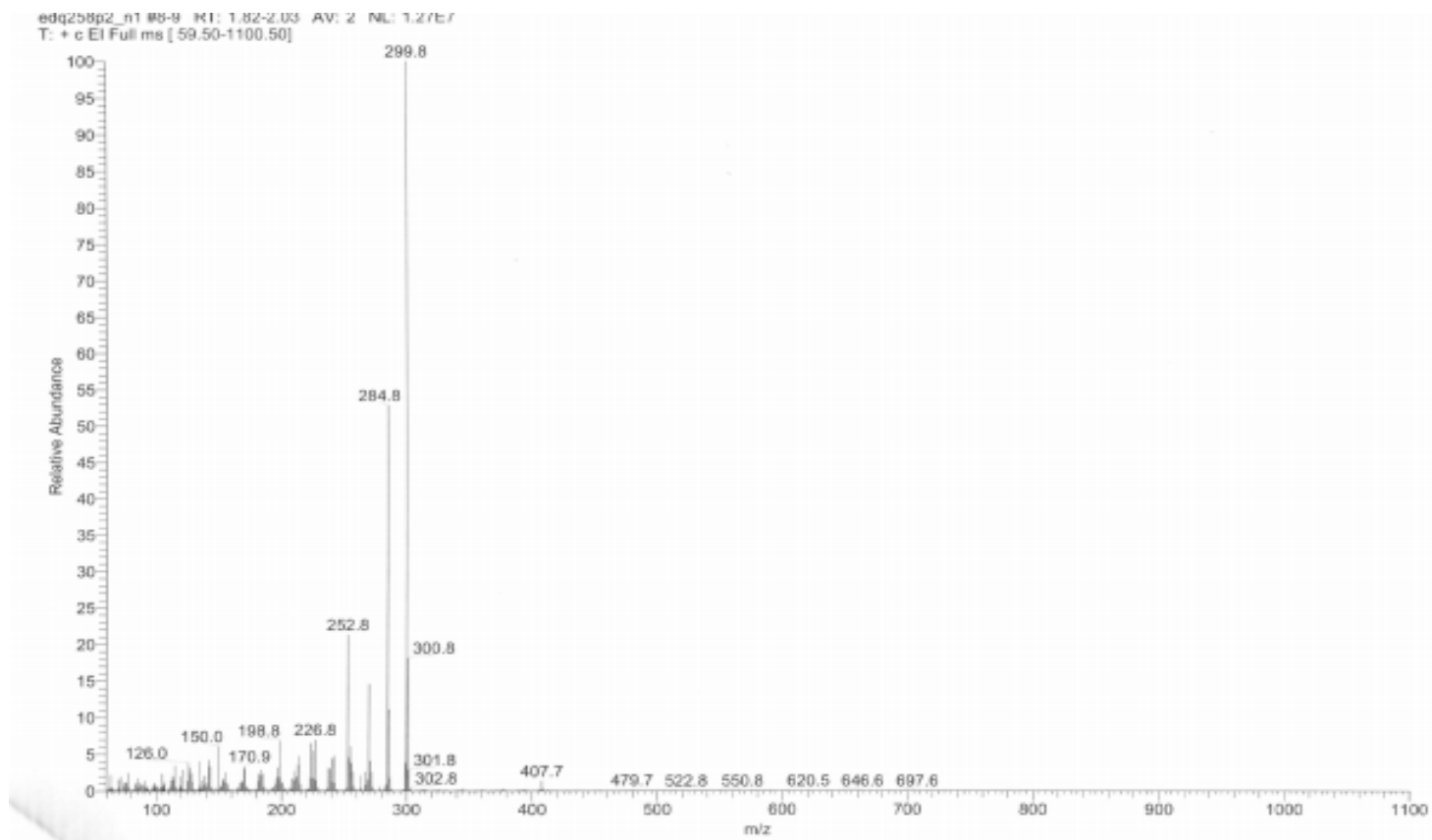


Figure 64 EI-MS spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12)

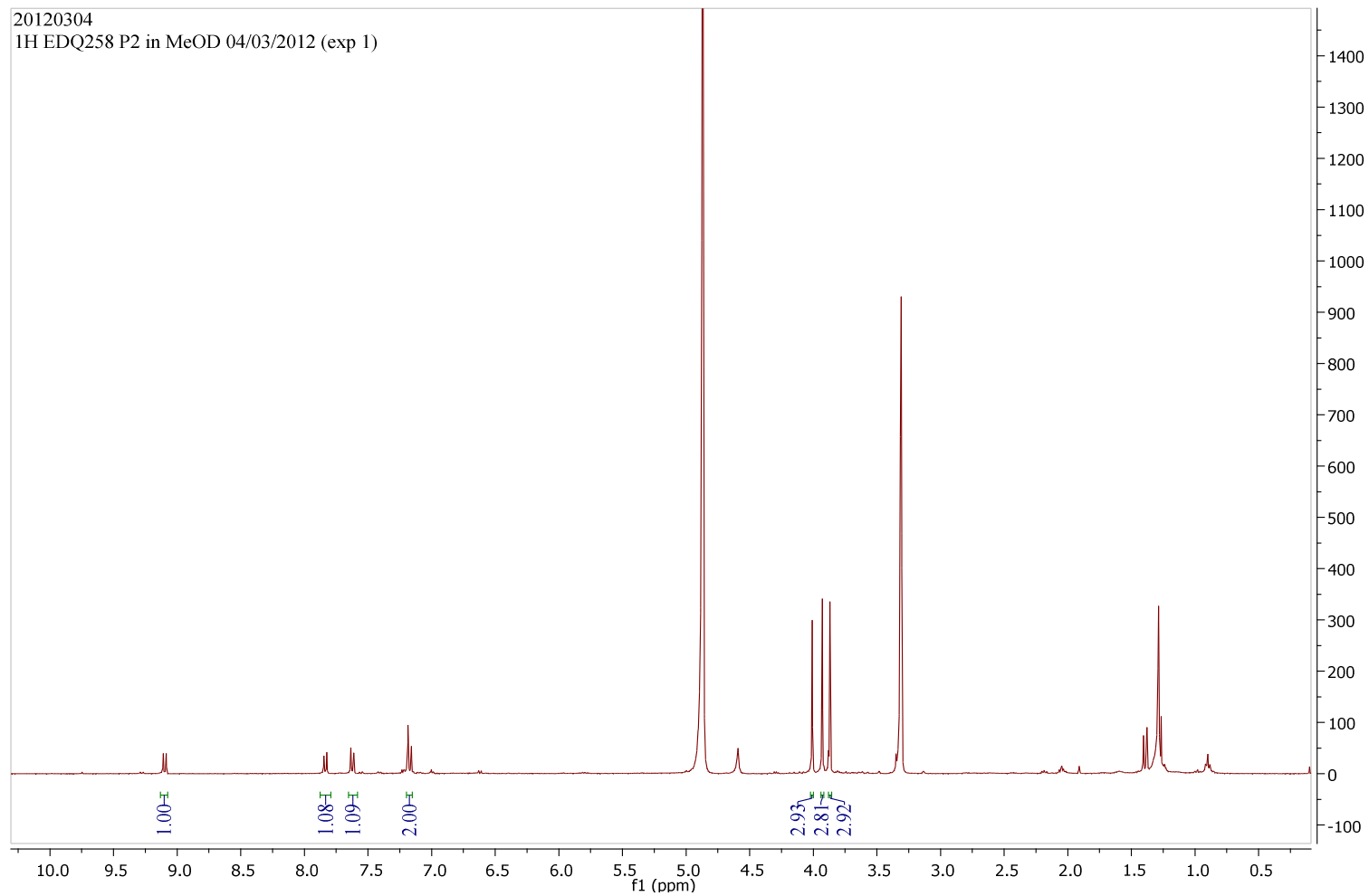


Figure 65 ^1H -NMR spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (400 MHz, methanol- d_4)

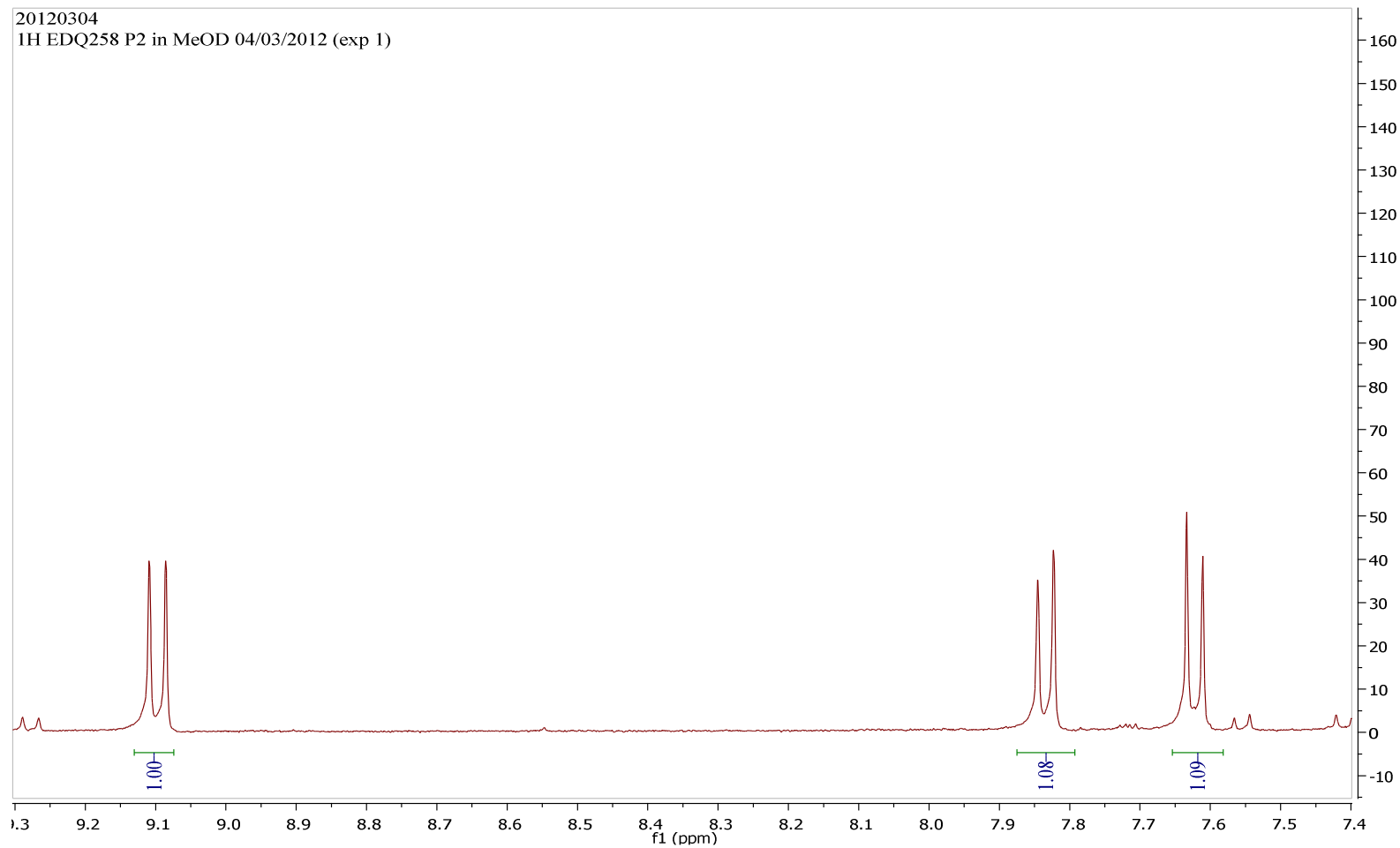


Figure 66 Enlarged ^1H -NMR spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (7.4-9.2 ppm, 400 MHz, methanol- d_4)

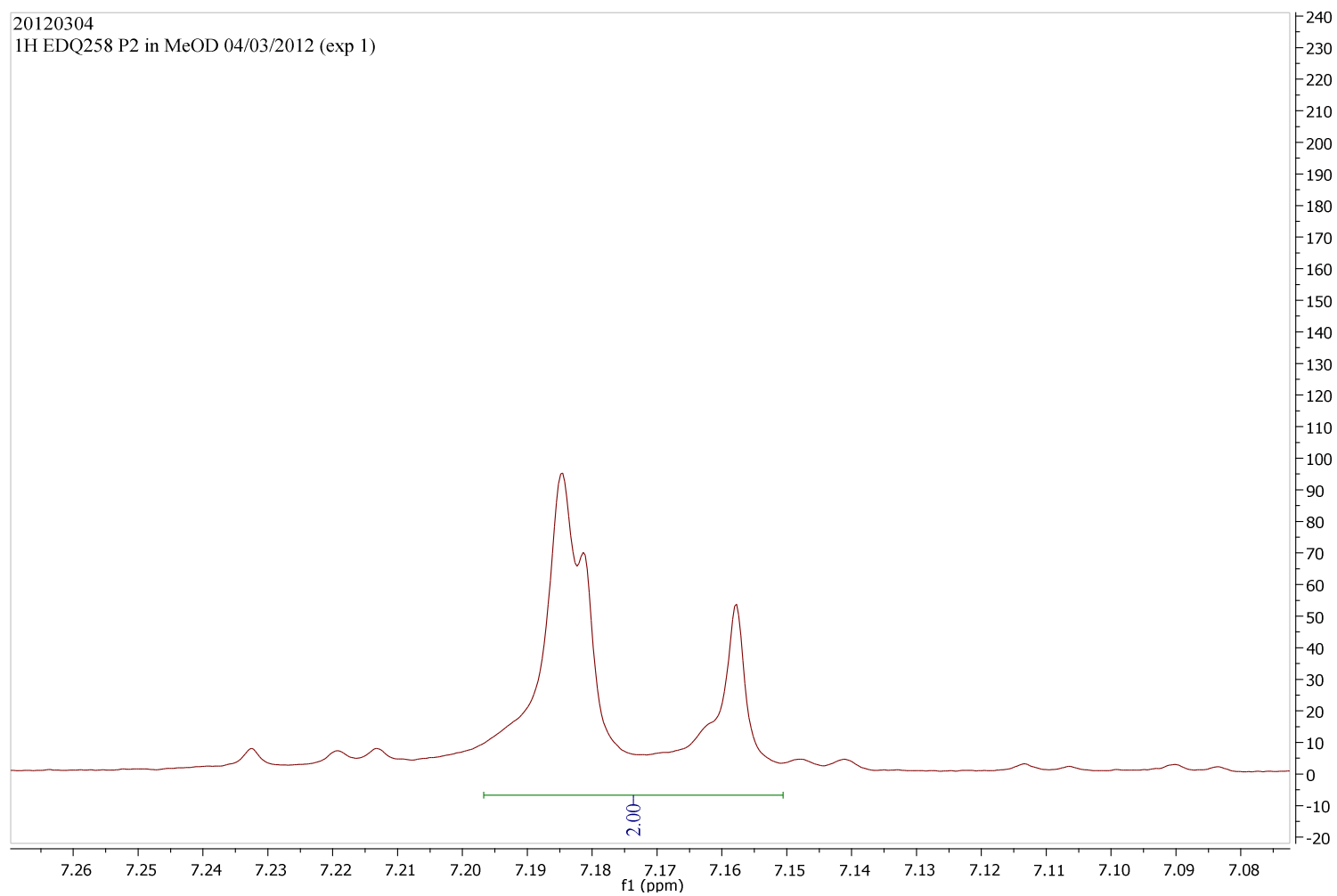


Figure 67 Enlarged ^1H -NMR spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (7.15–7.20 ppm, 400 MHz, methanol- d_4)

20120304
13C EDQ258 P2 in MeOD 04/03/2012 (exp 2)

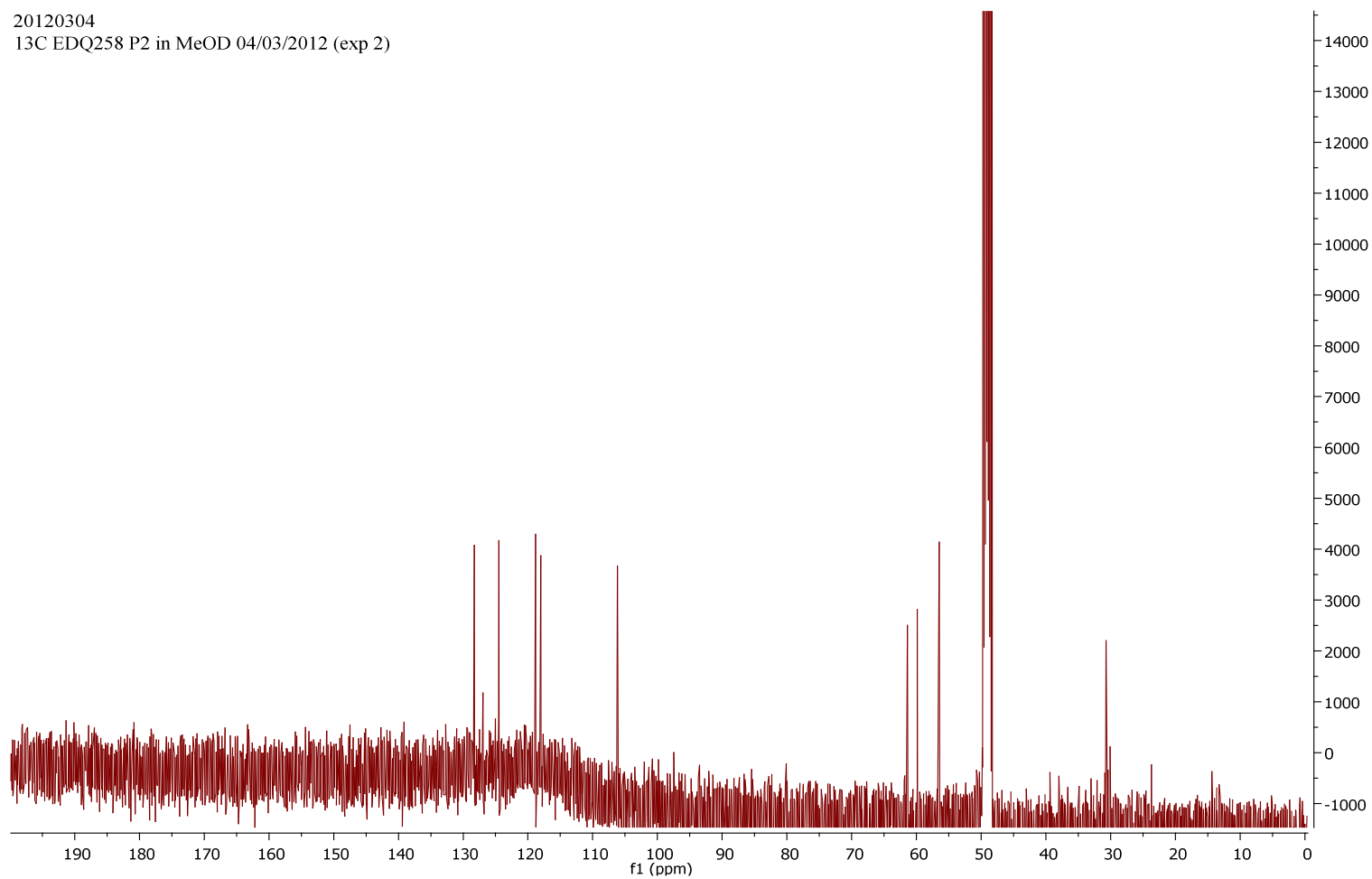


Figure 68 ^{13}C -NMR spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (100 MHz, methanol- d_4)

20120304
13C DEPT0135 EDQ258 P2 in MeOD 04/03/2012 (exp 3)

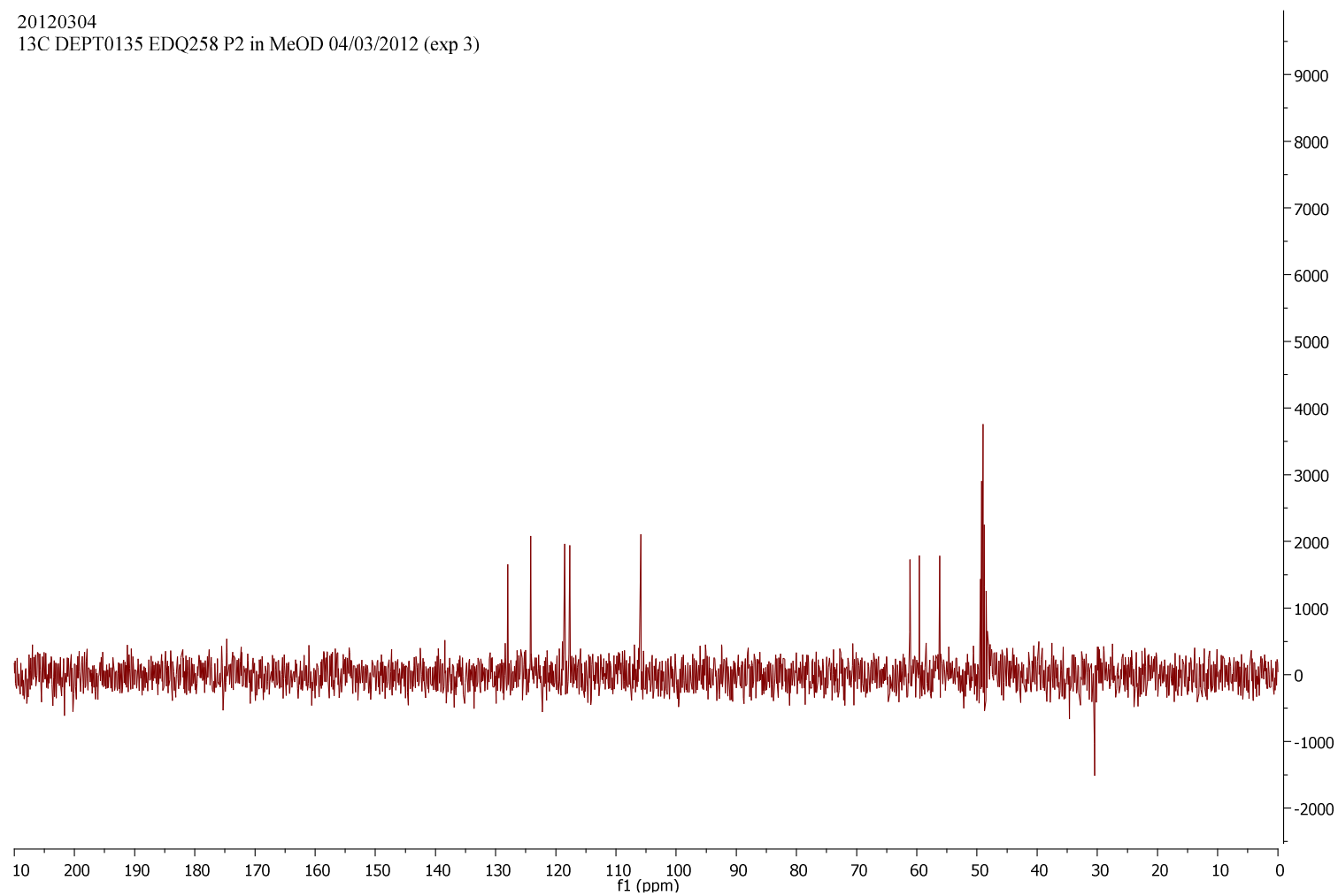


Figure 69 DEPT 135 spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (100 MHz, methanol- d_4)

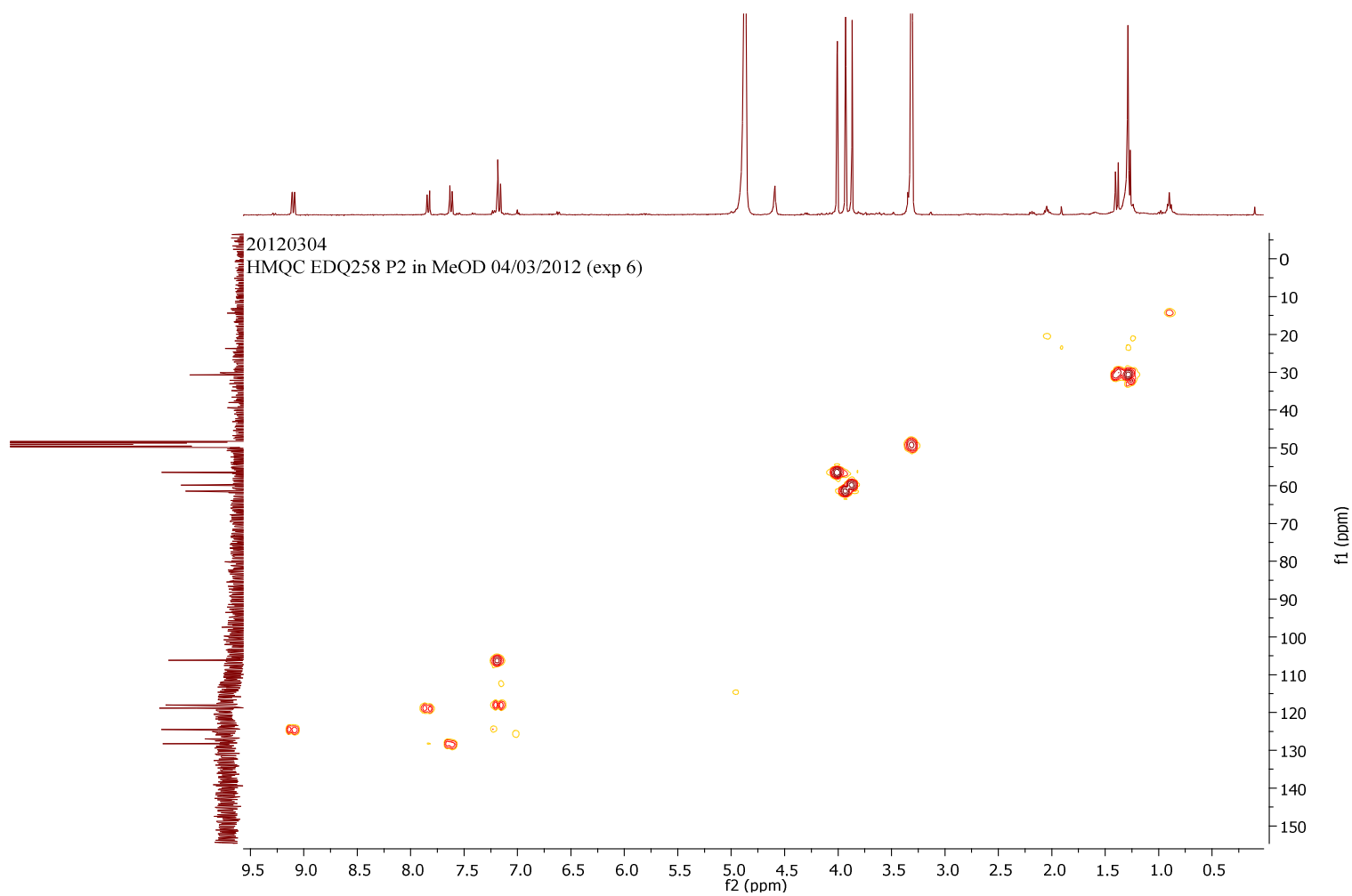


Figure 70 HMQC spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (400 MHz, methanol- d_4)

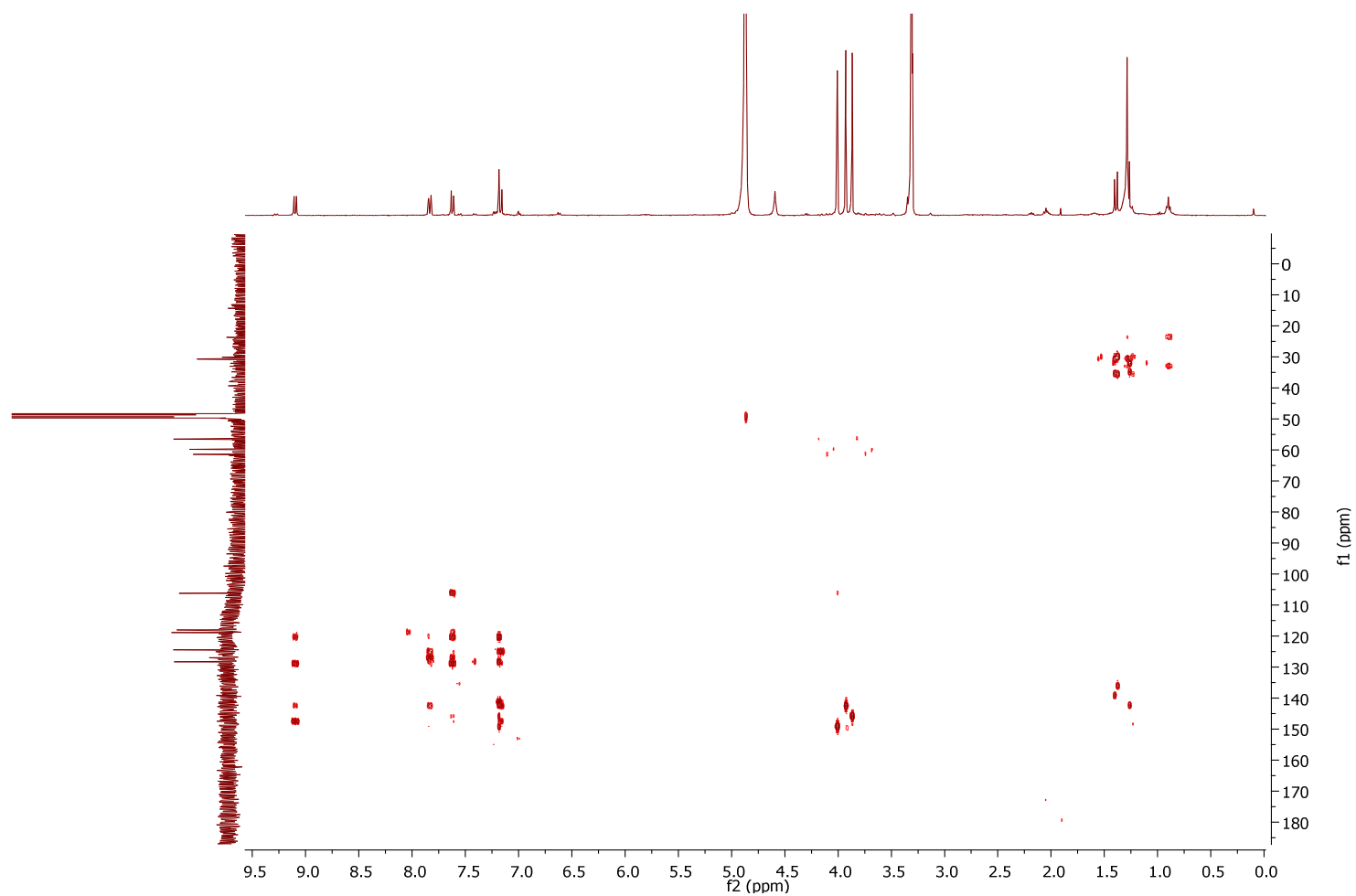


Figure 71 HMBC spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (**12**) (400 MHz, methanol-*d*₄)

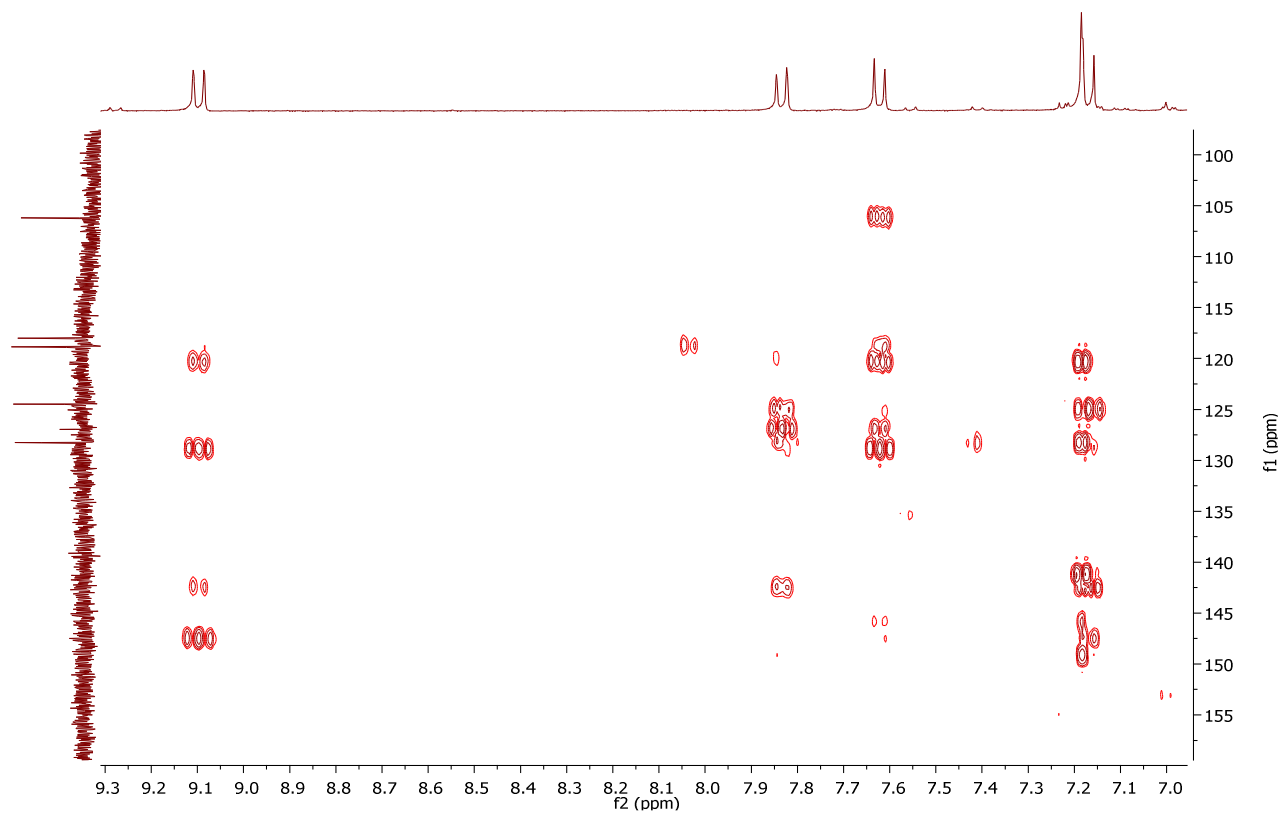


Figure 72 Enlarge HMBC spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (400 MHz, methanol- d_4) (7.0-9.3ppm versus 100-155ppm)

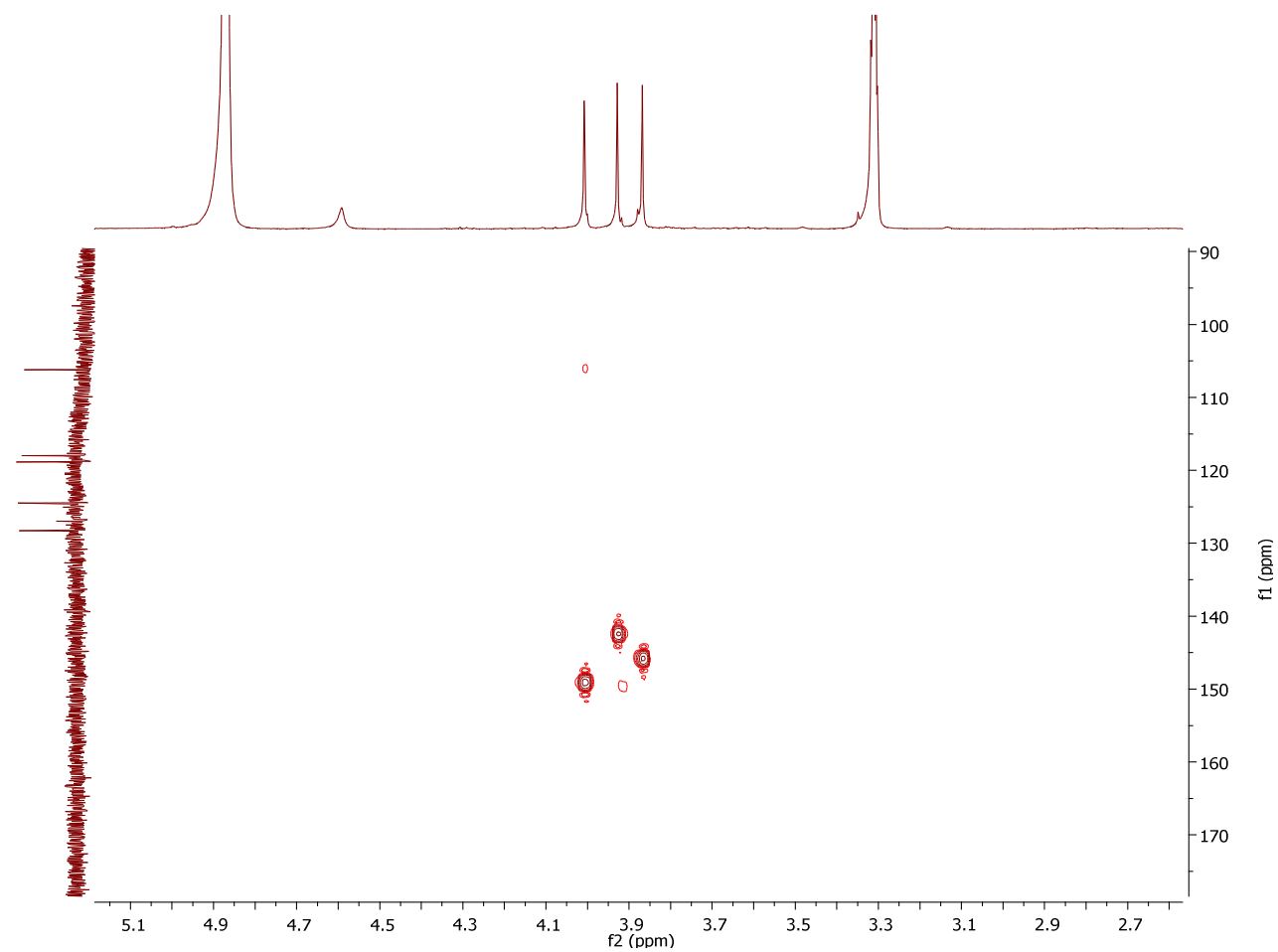


Figure 73 Enlarge HMBC spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (400 MHz, methanol-*d*₄) (2.7-5.1ppm versus 90-170ppm)

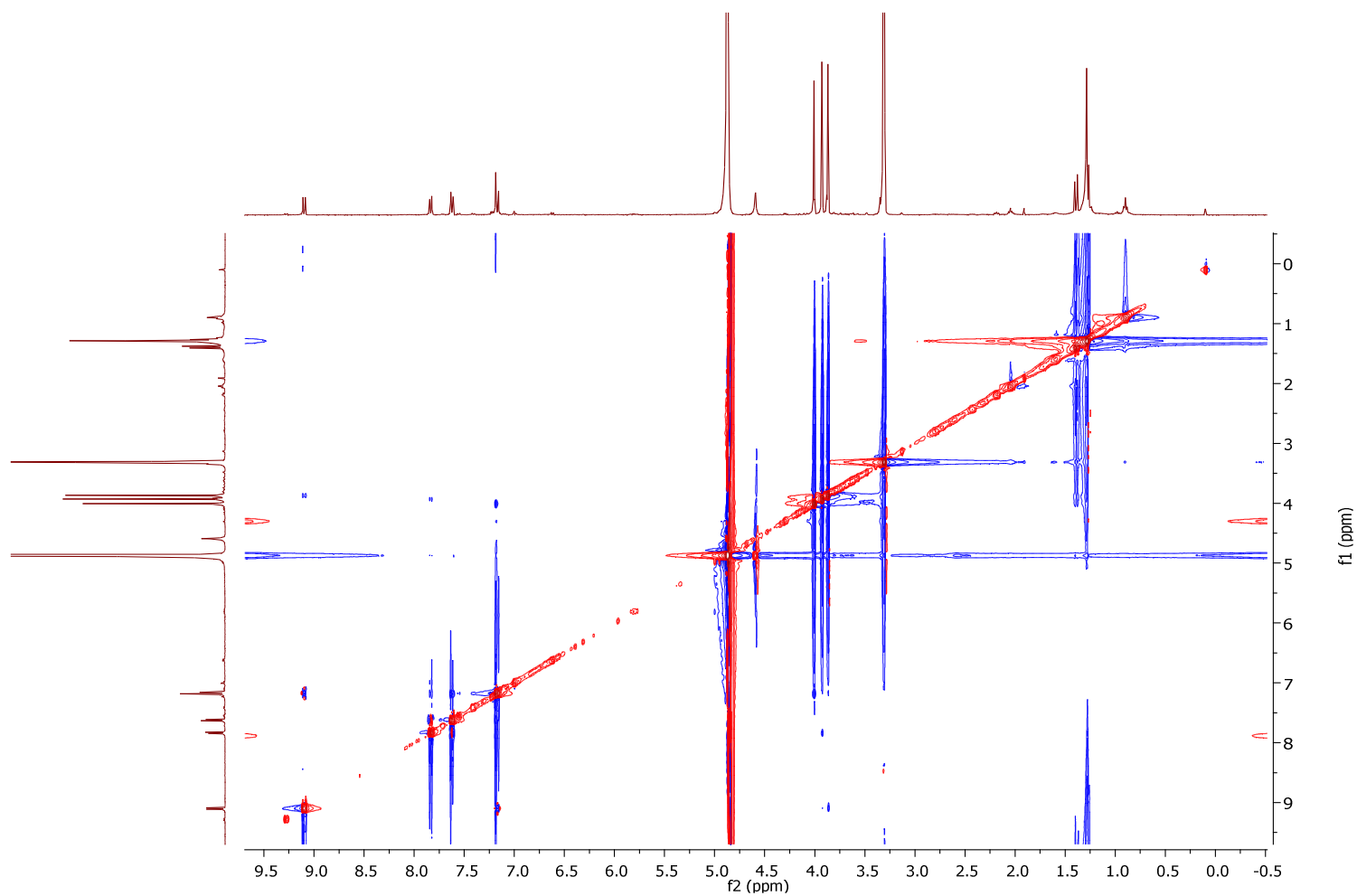


Figure 74 NOESY spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (400 MHz, methanol-*d*₄)

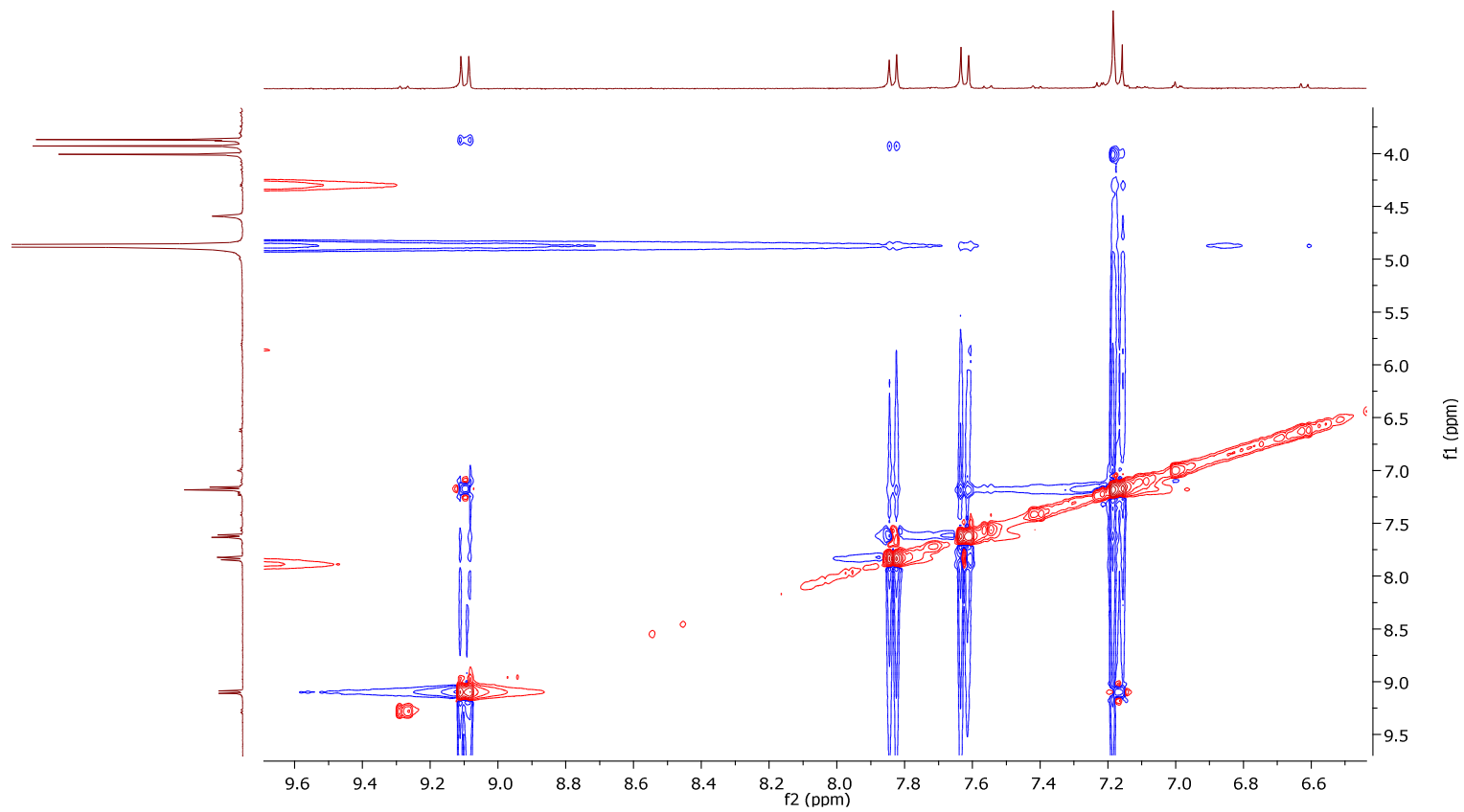


Figure 75 Enlarge NOESY spectrum of 1,5,7-trimethoxyphenanthrene-2,6-diol (12) (400 MHz, methanol- d_4)