Sb (V) Kaempferol and Quercetin derivative complexes: synthesis, characterization and antileishmanial activities

Contents

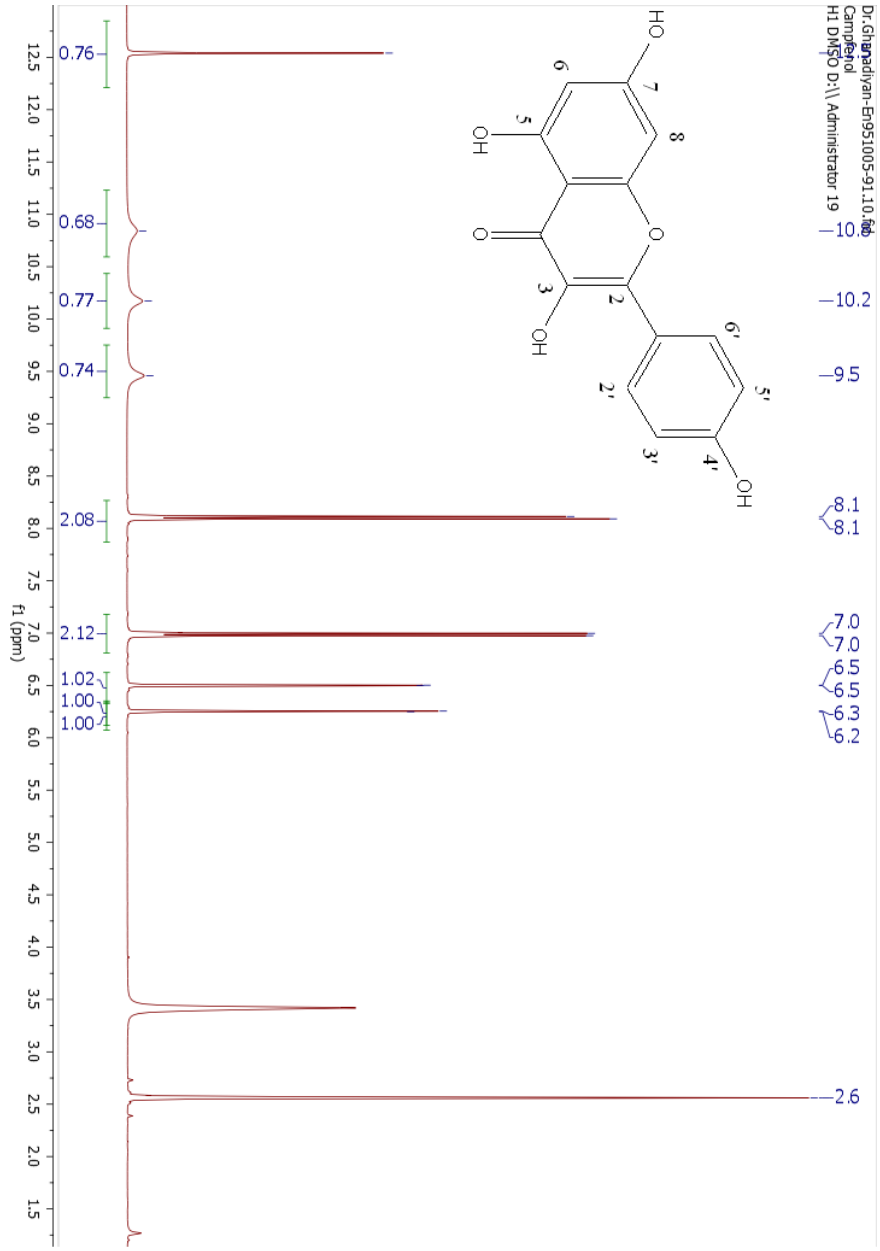

Figure 1s: ^{1}H-NMR spectrum of Kaempferol (1)

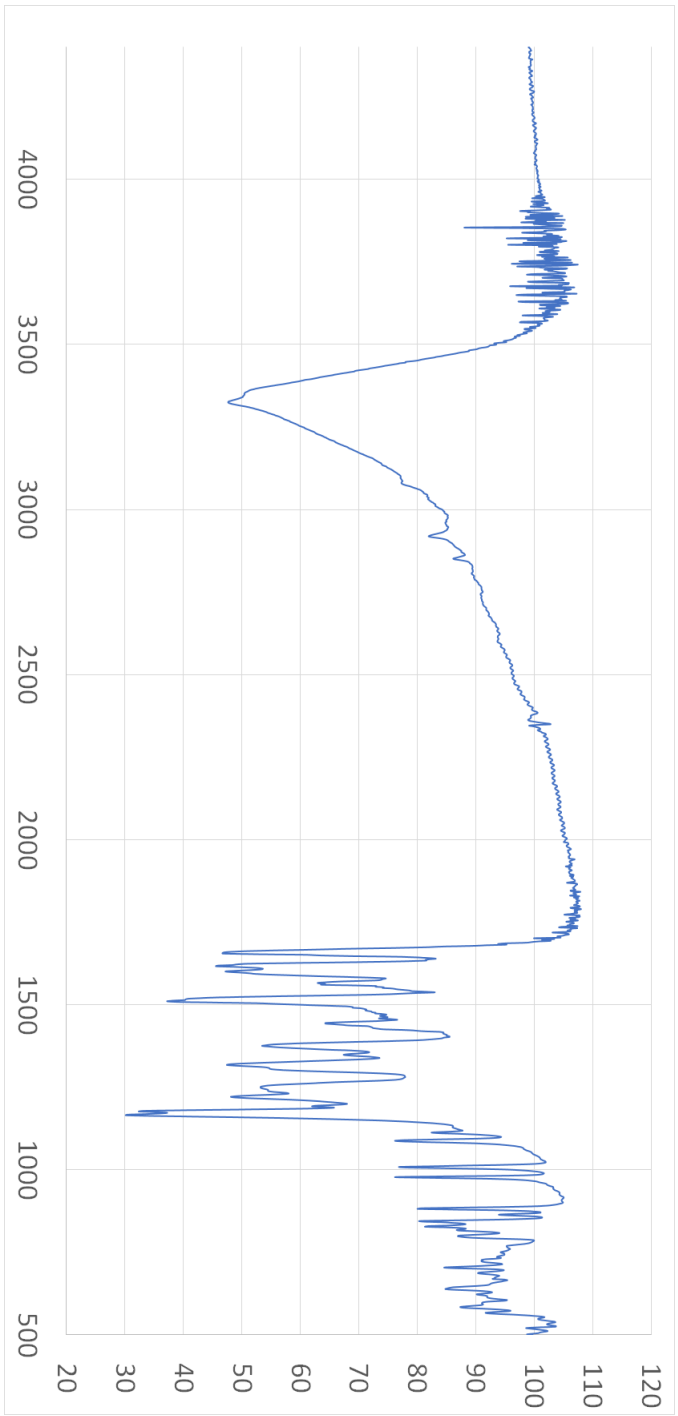

Figure 2s: IR spectrum of kaempferol (1)

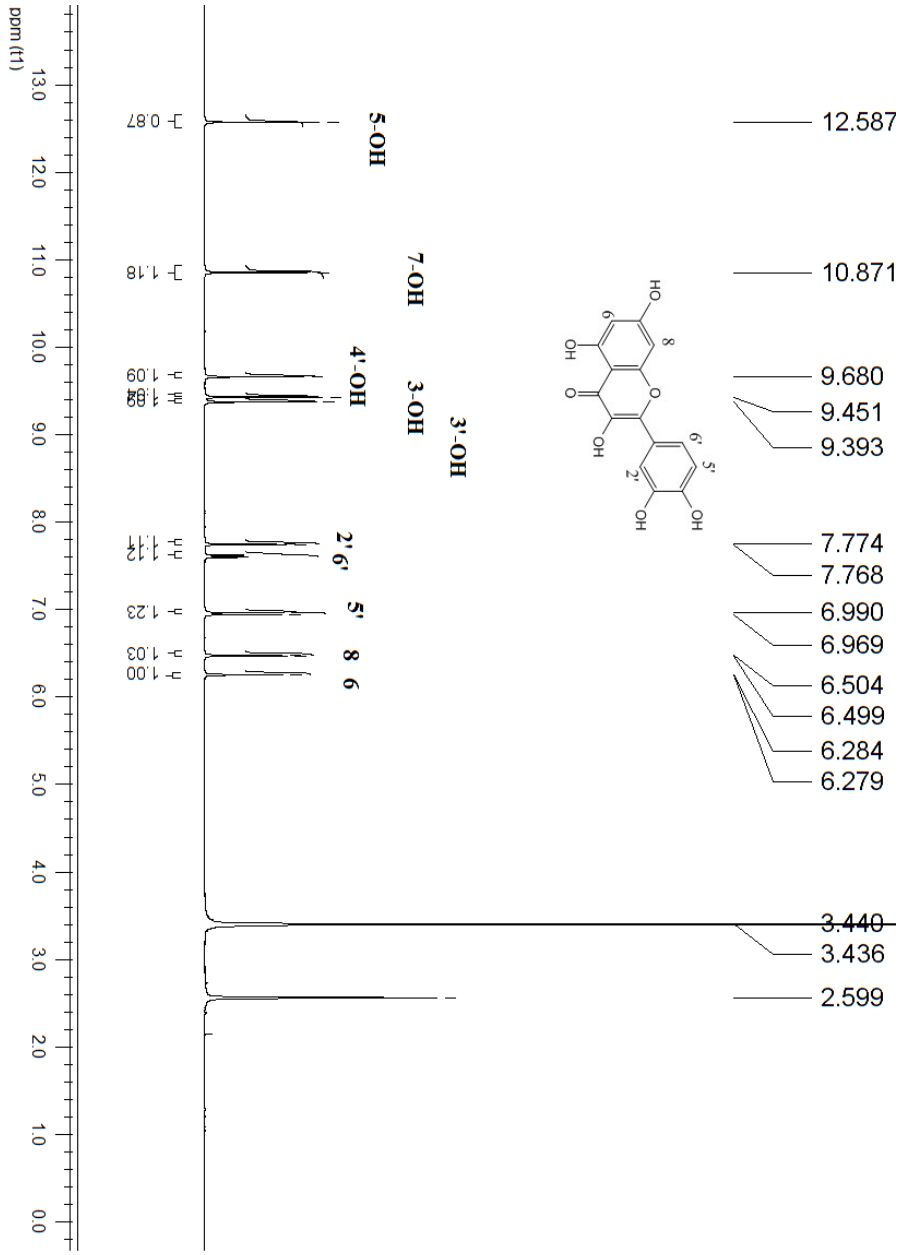

Figure 3s: ^{1}H-NMR spectrum of Quercetin (2)

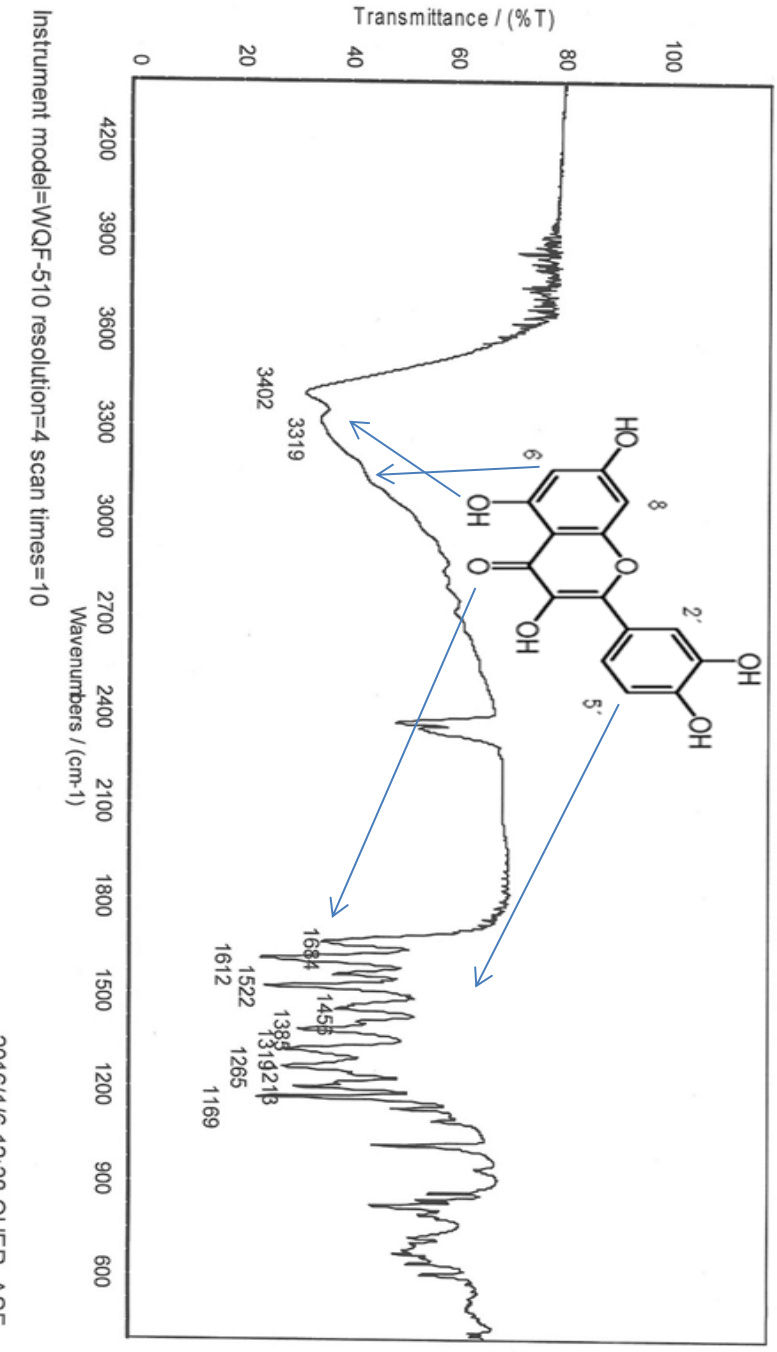

Figure 4s: IR spectrum of Quercetin (2)

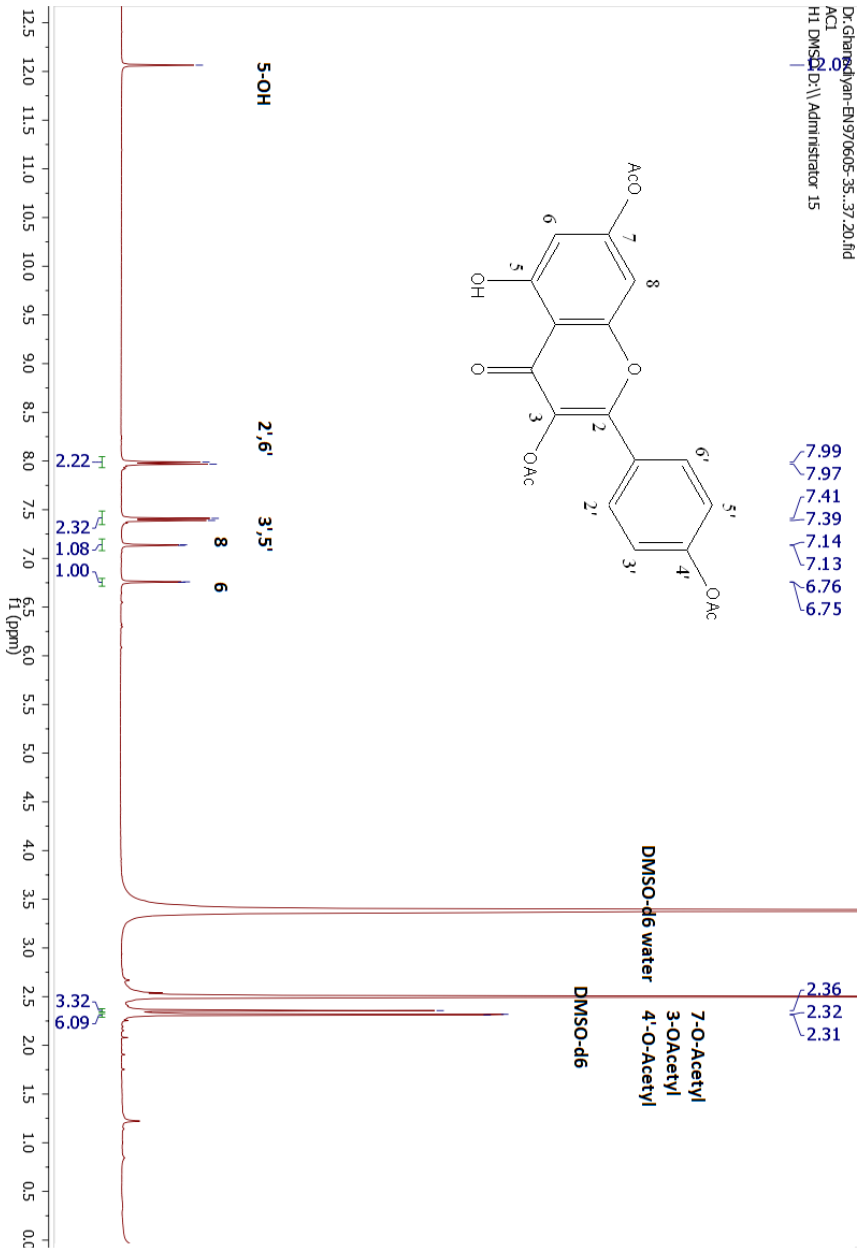

Figure 5s: ^{1}H-NMR of Kaempferol-3,7, 4′-triacetate (KTA, 3)

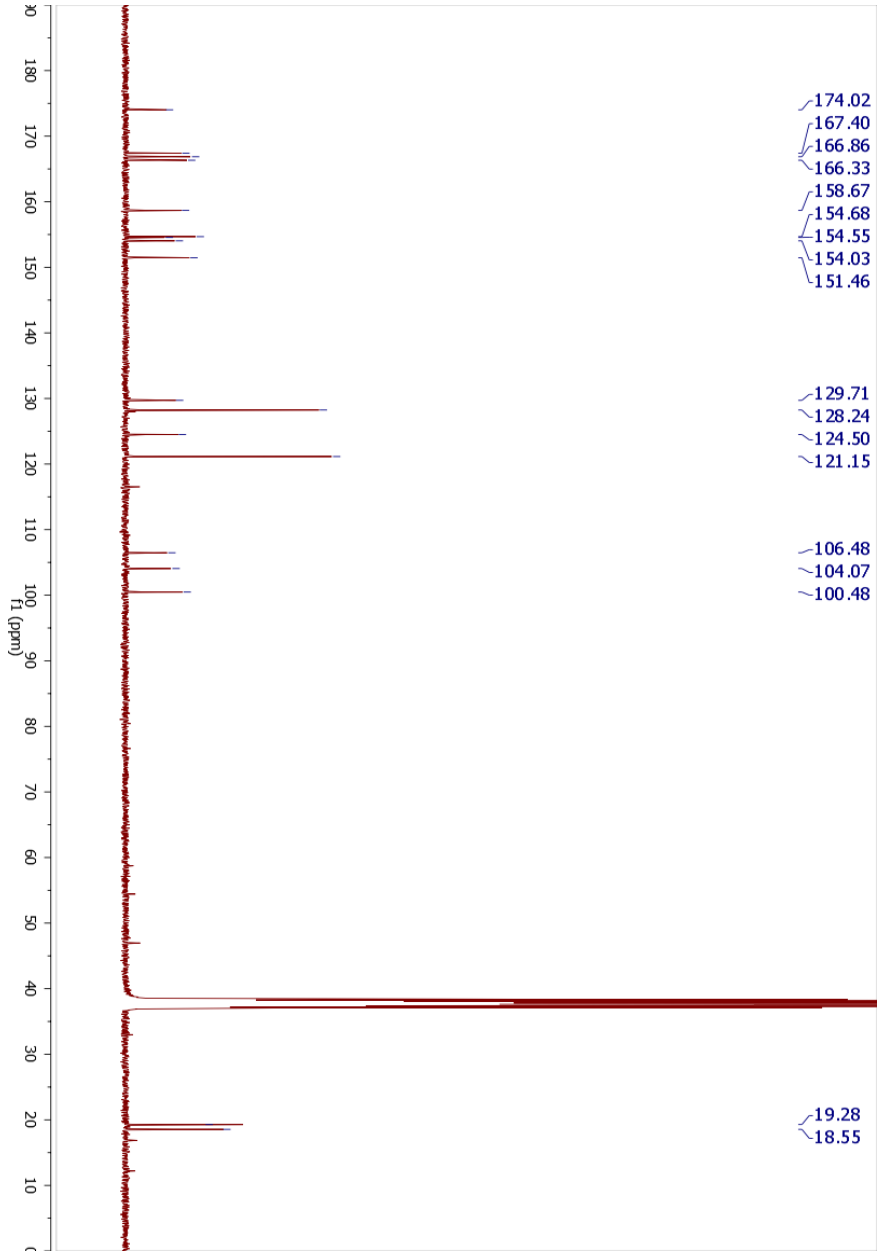

Figure 6s: ^{13}C-NMR spectrum of Kaempferol-3,7, 4′-triacetate (KTA, 3)

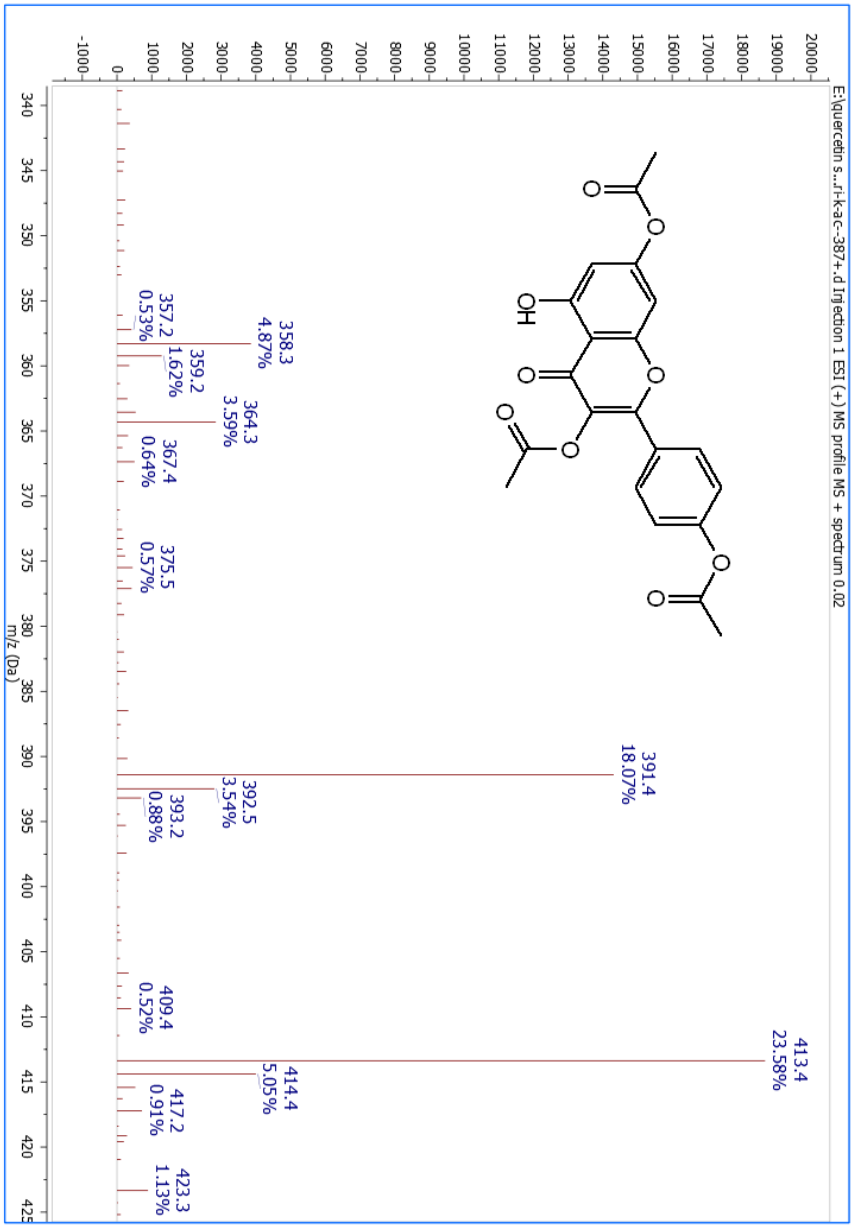

Figure 7s: Positive ESI mass spectrum of Kaempferol-3,7, 4′-triacetate (KTA, 3)

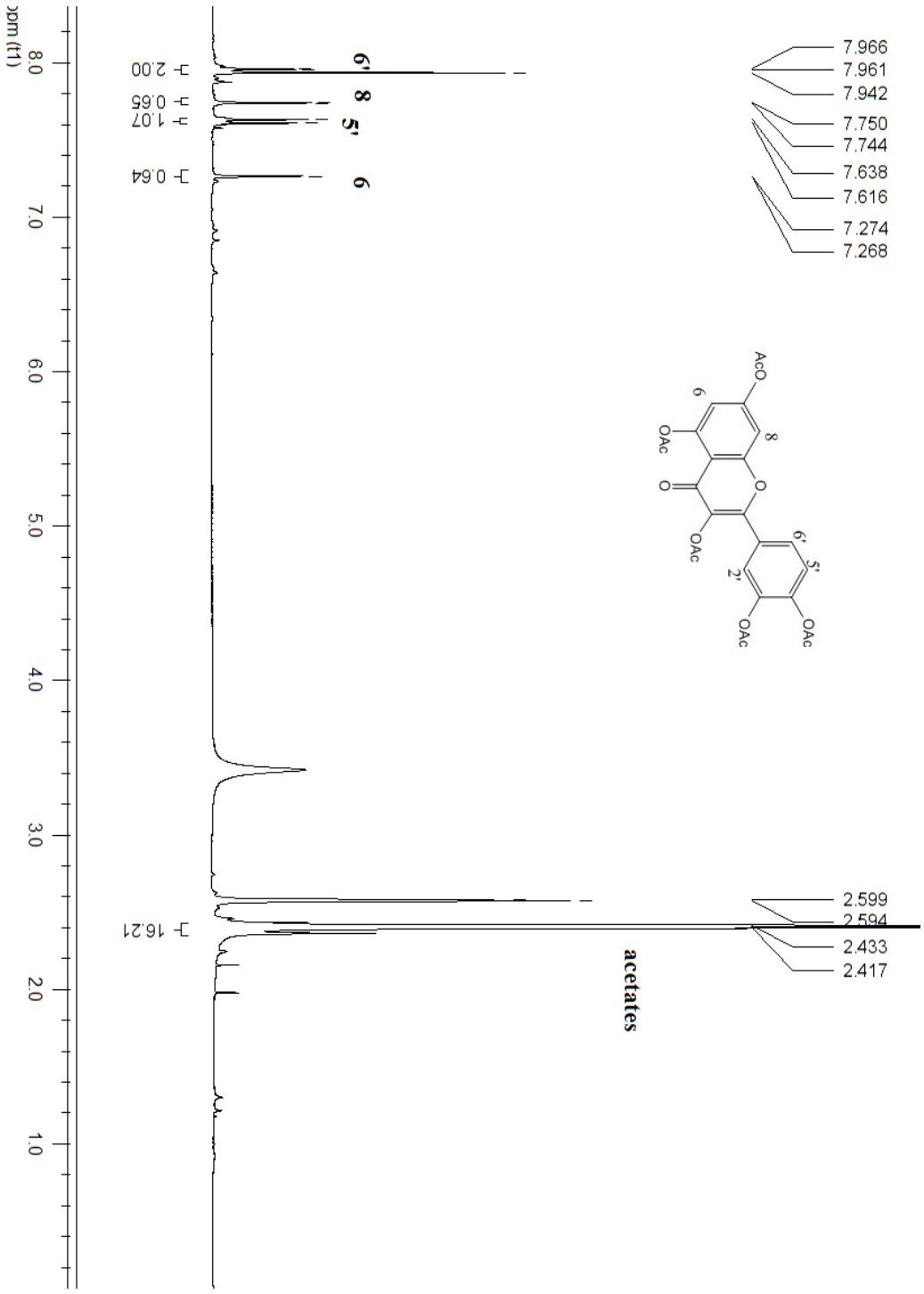

Figure 8s: ^{1}H-NMR spectrum of Quercetin 3,5,7,3',4'-pentaacetate (QPA, 5)

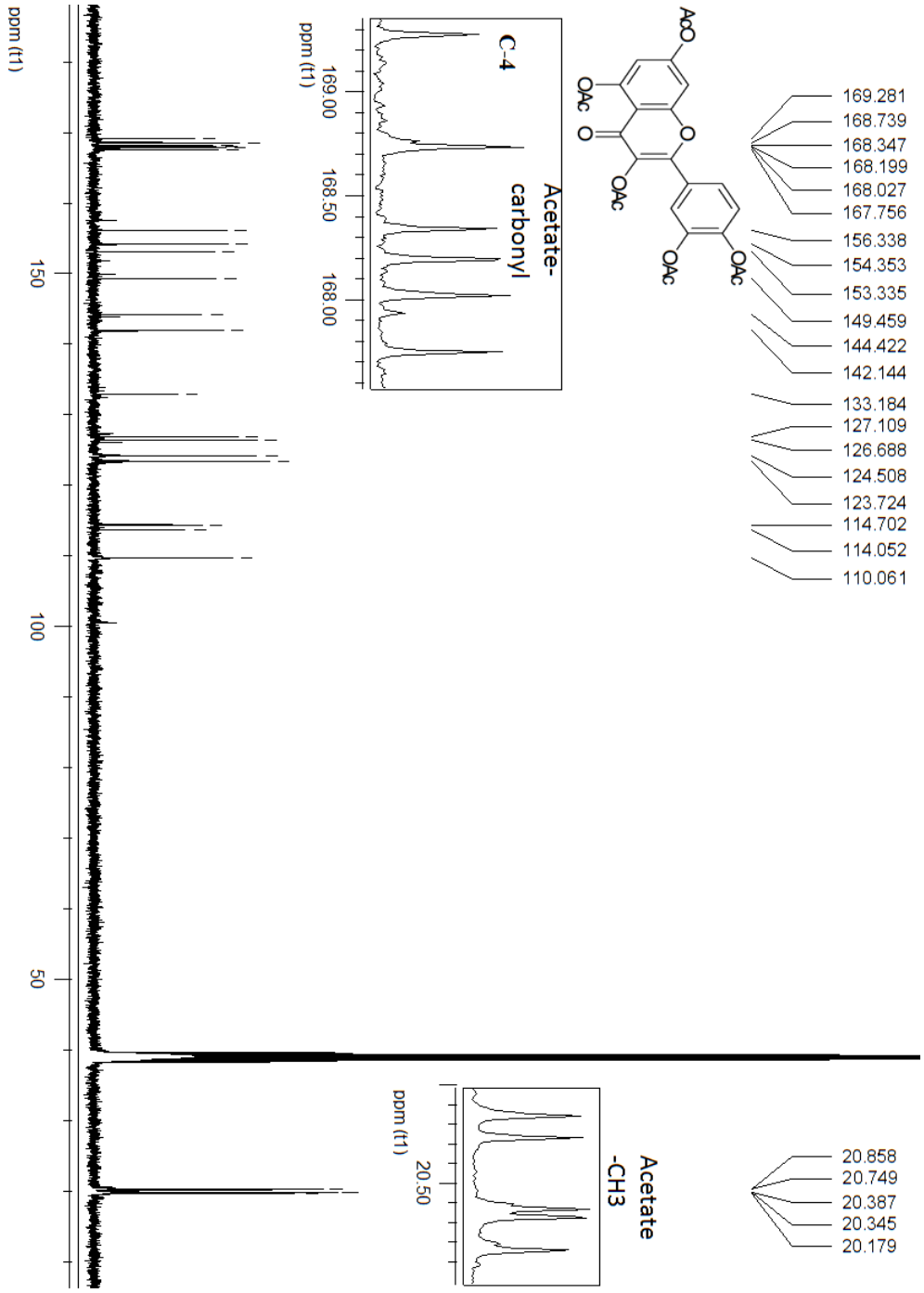

Figure 9s: ^{13}C-NMR spectrum of Quercetin 3,5,7,3',4'-pentaacetate (QPA, 5)

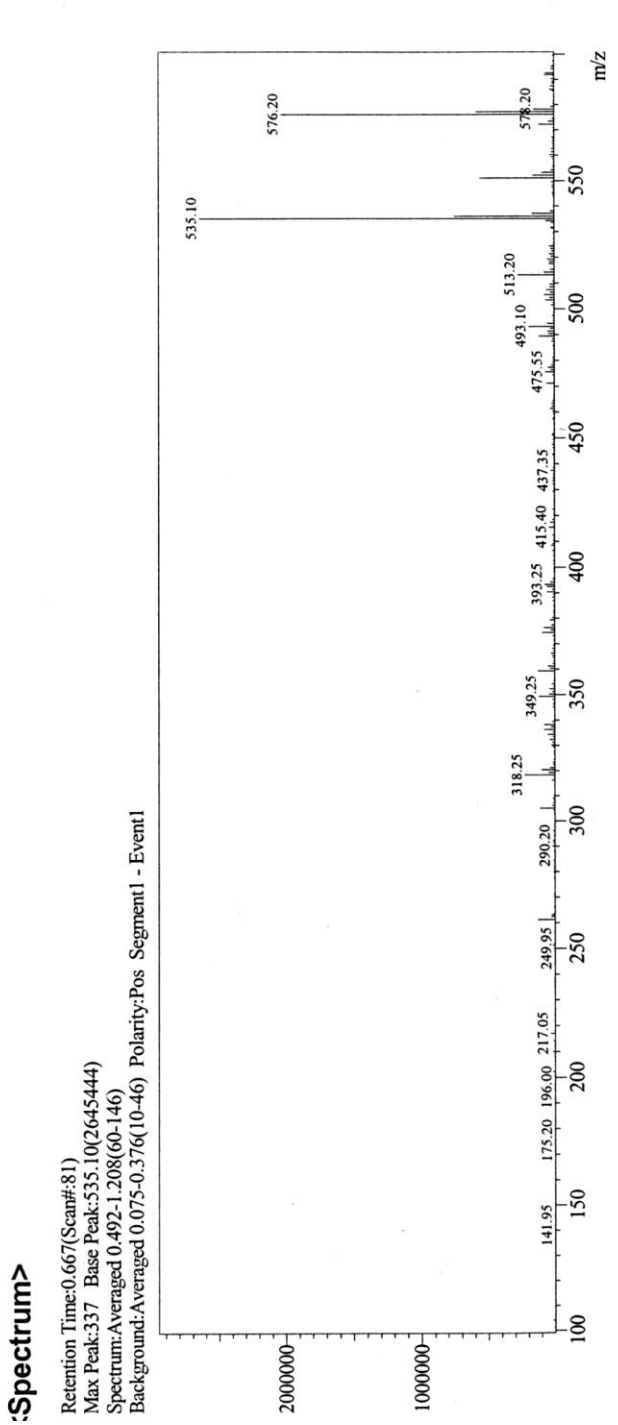

Figure 10s: Positive ESI mass spectrum of Quercetin 3,5,7,3',4'-pentaacetate (m/z): 535 [M+Na]

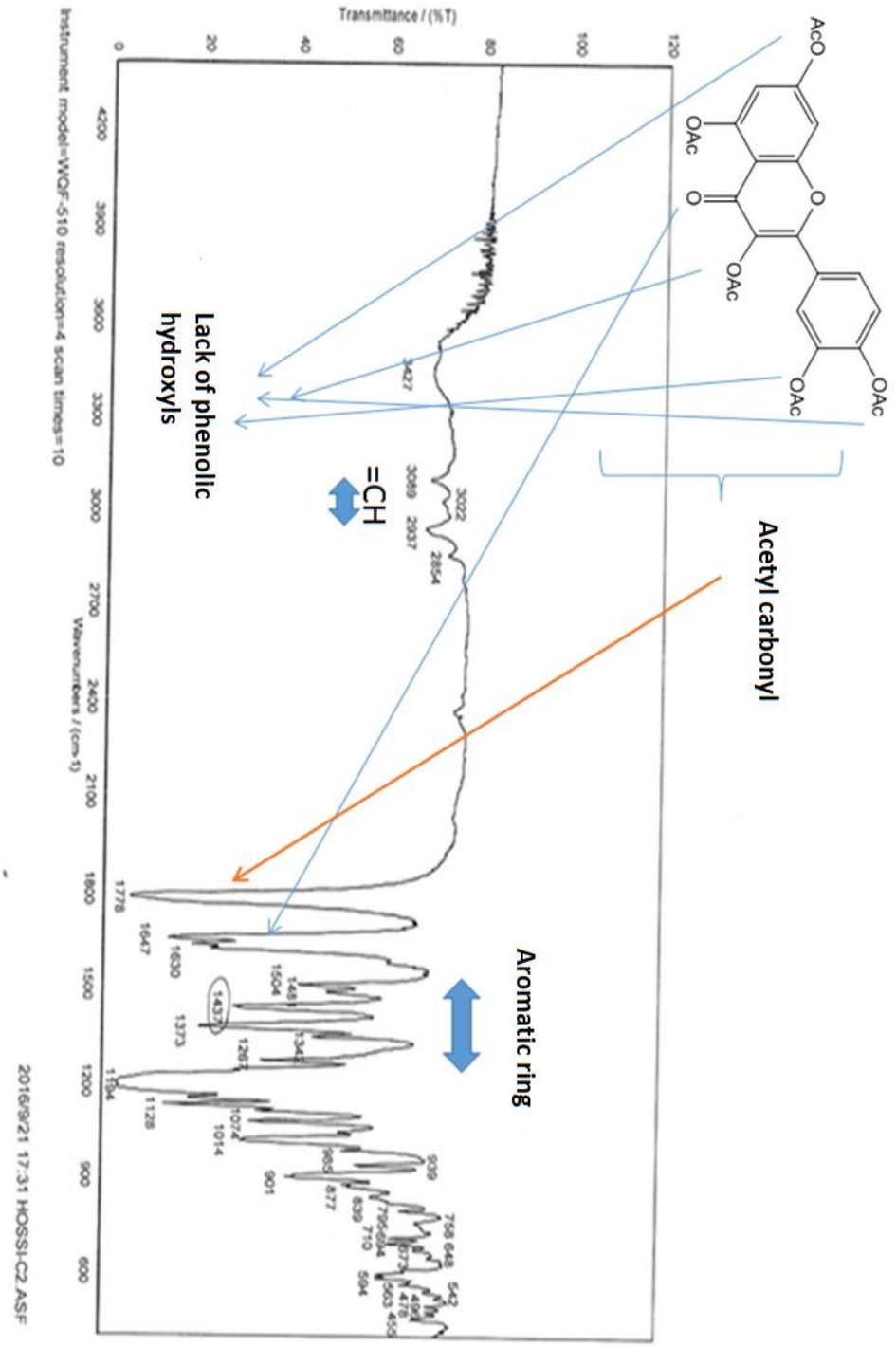

Figure 11s: IR spectrum of Quercetin 3,5,7-3',4'-pentaacetate (QPA, 5)

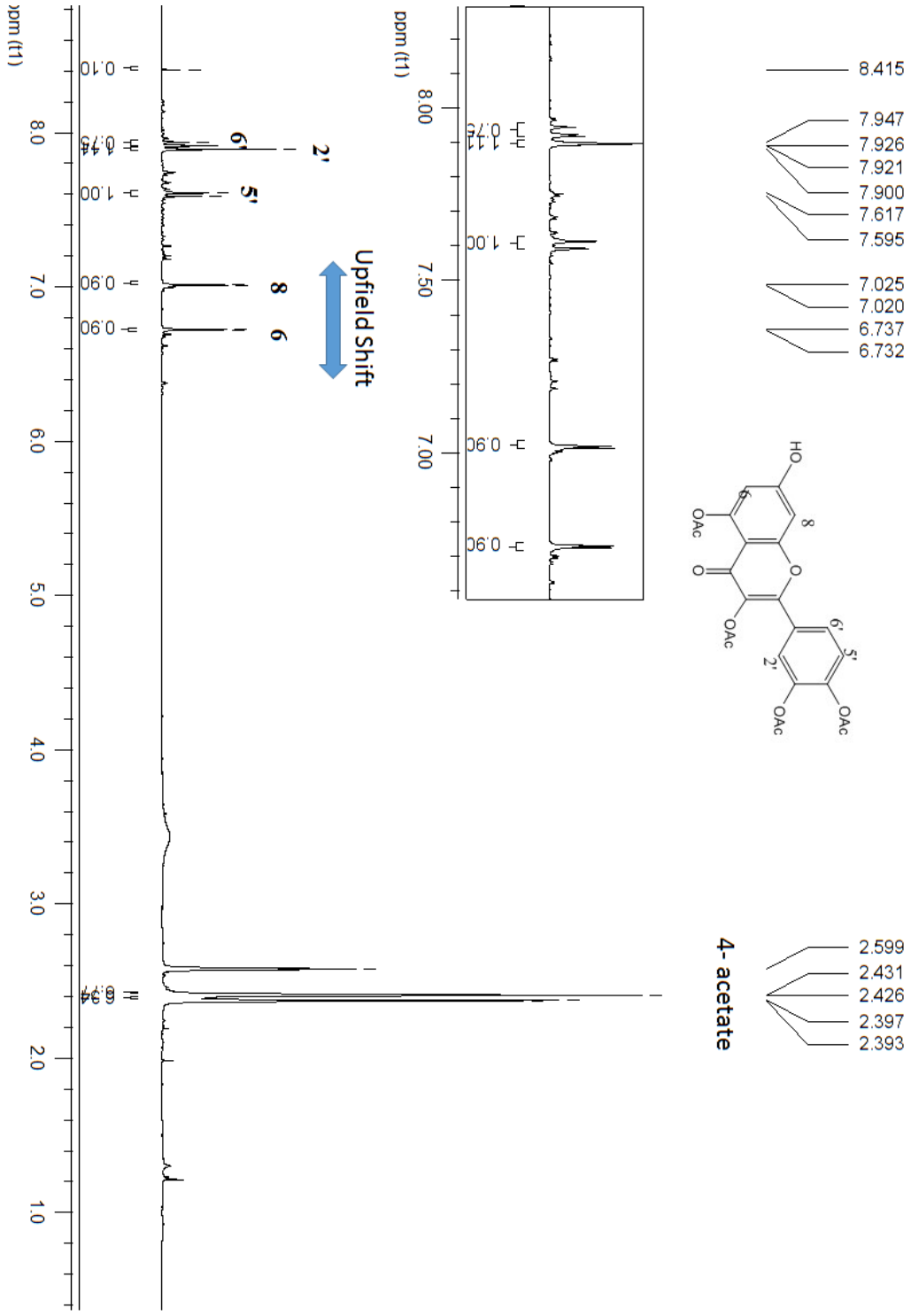

Figure 12s: ^{1}H-NMR spectrum of Quercetin 3,5,3',4'-tetraacetate (QTA, 6)

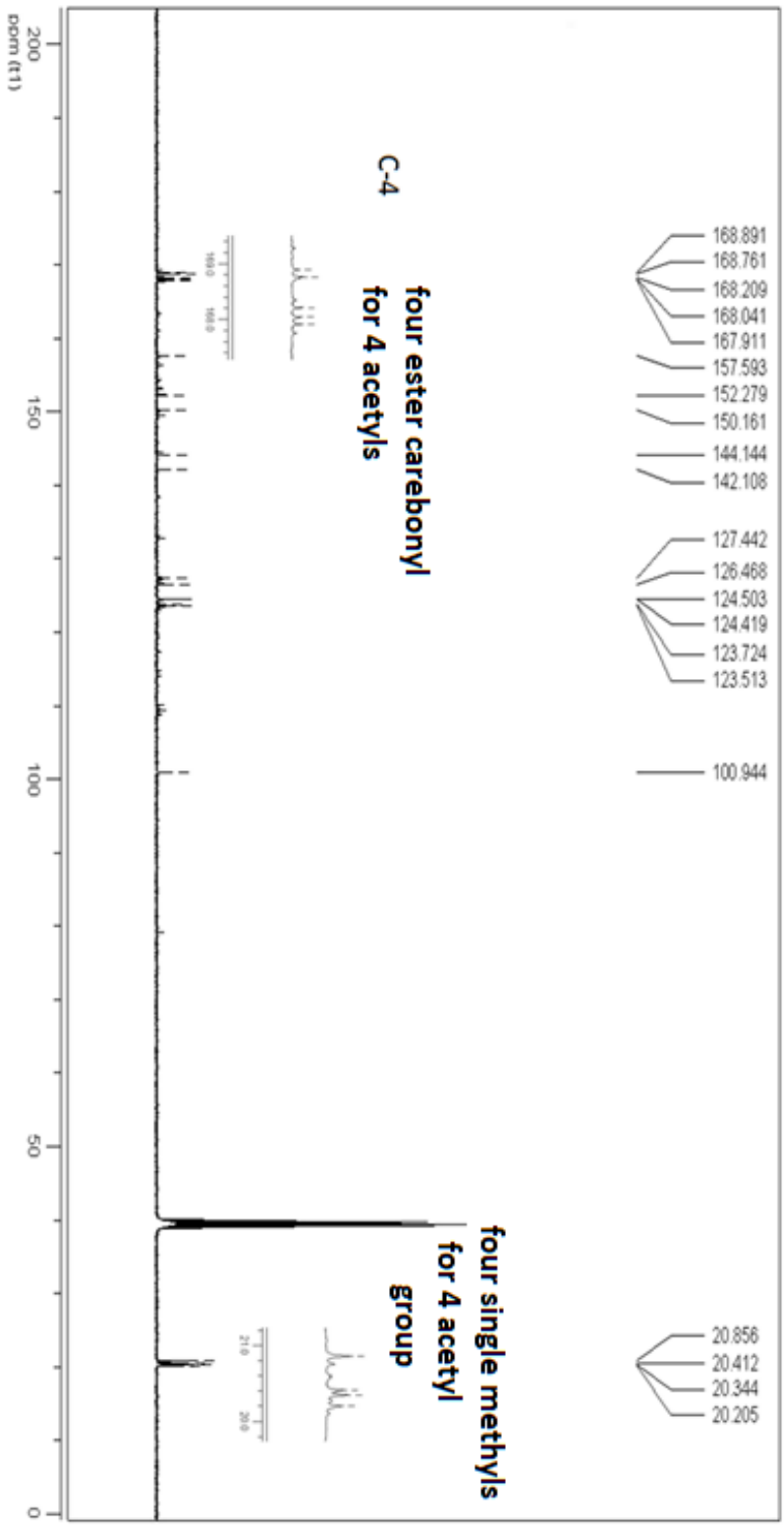

Figure 13s: ^{13}C-NMR spectrum of Quercetin 3,5, 3',4'-tetraacetate (QTA, 6)

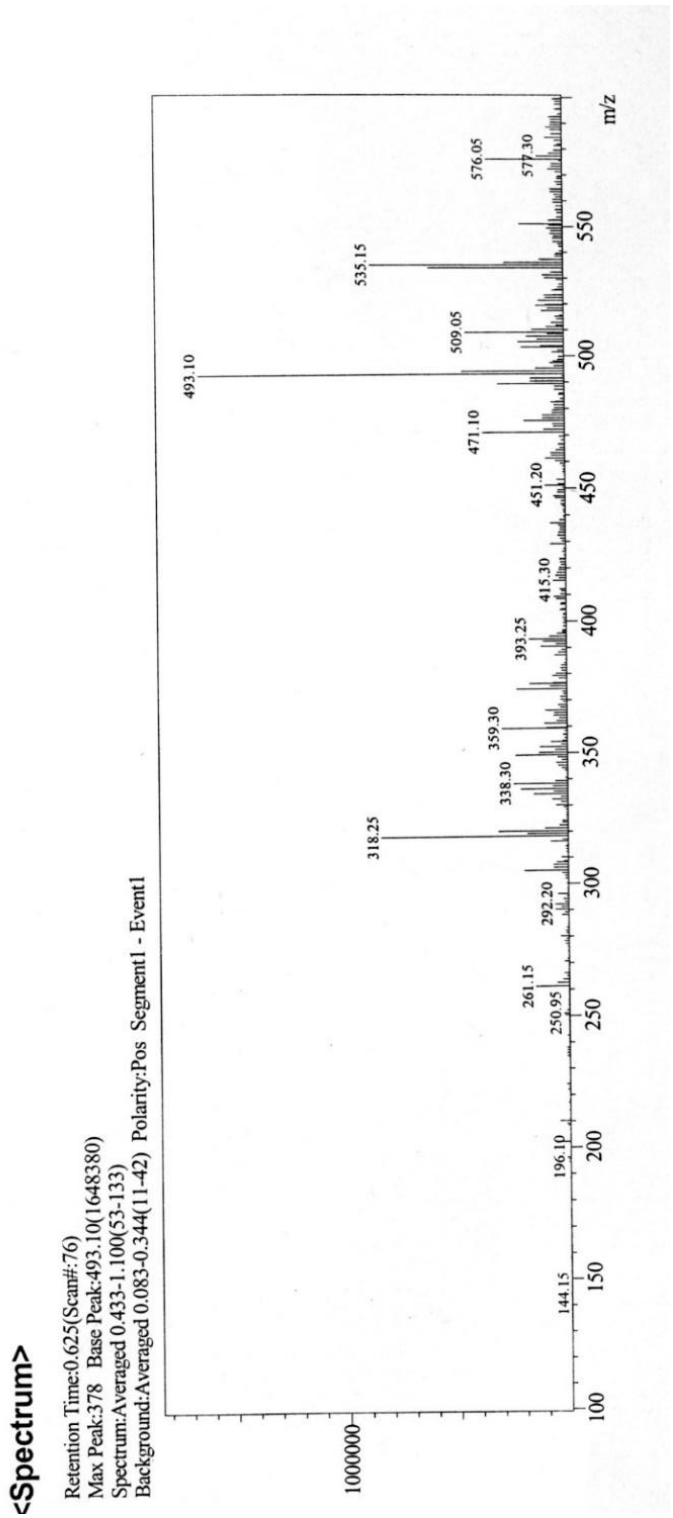

Figure 14s: Positive ESI mass spectrum of Quercetin 3,5, 3',4'-tetraacetate (m/z): 493 [M+Na]

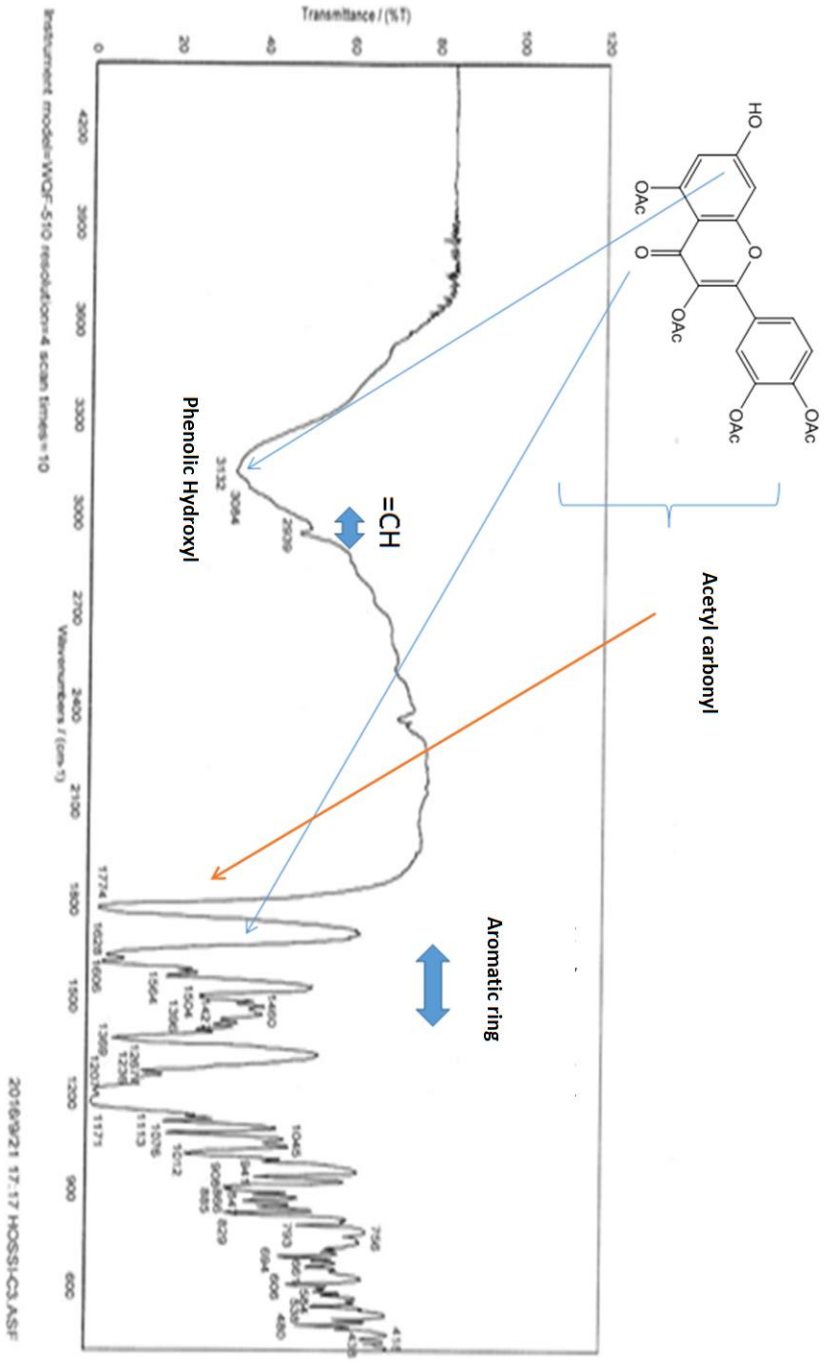

Figure 15s: IR spectrum of Quercetin 3,5, 3',4'-tetraacetate (QTA, 6)

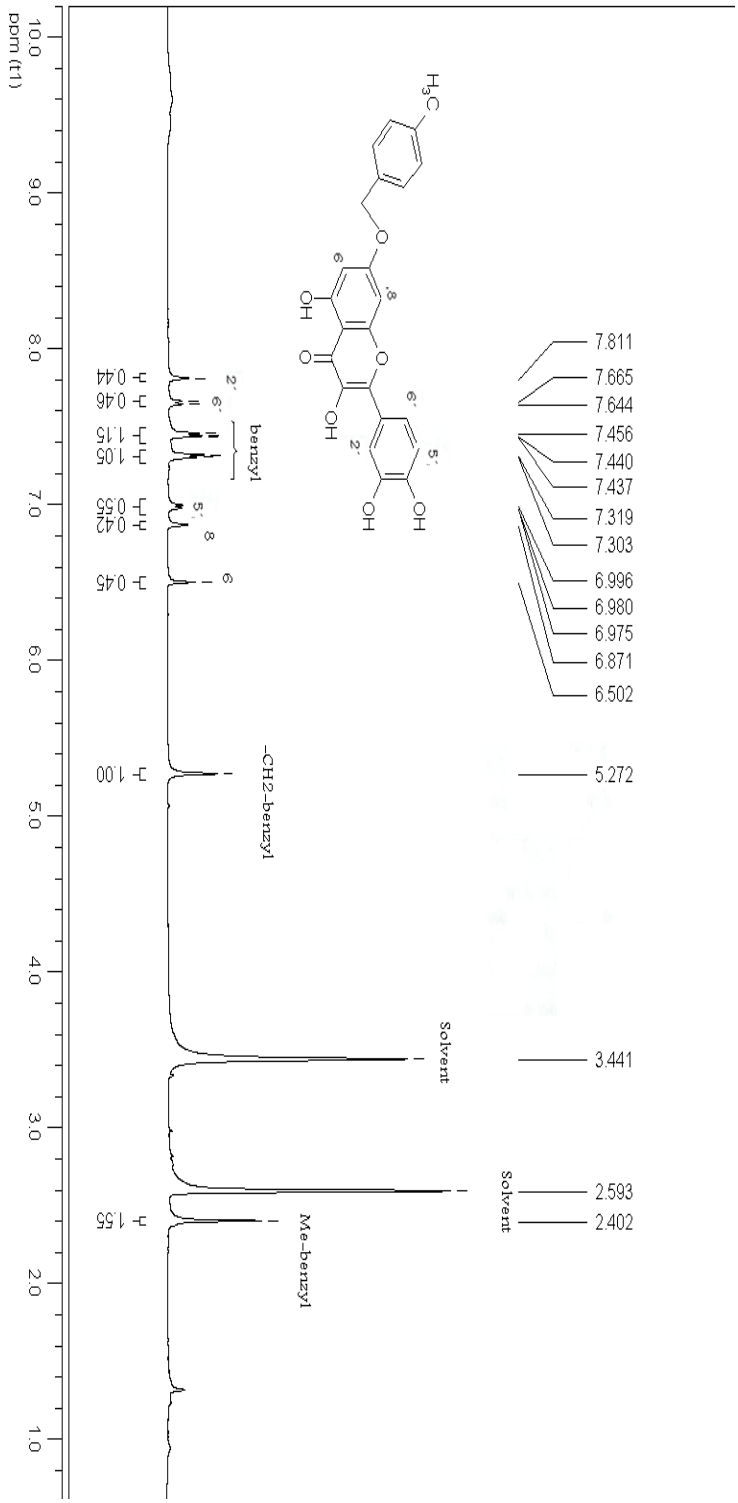

Figure 16s: ^{1}H-NMR spectrum of 7-O-Paramethylbenzyl quercetin (QPMB, 7)

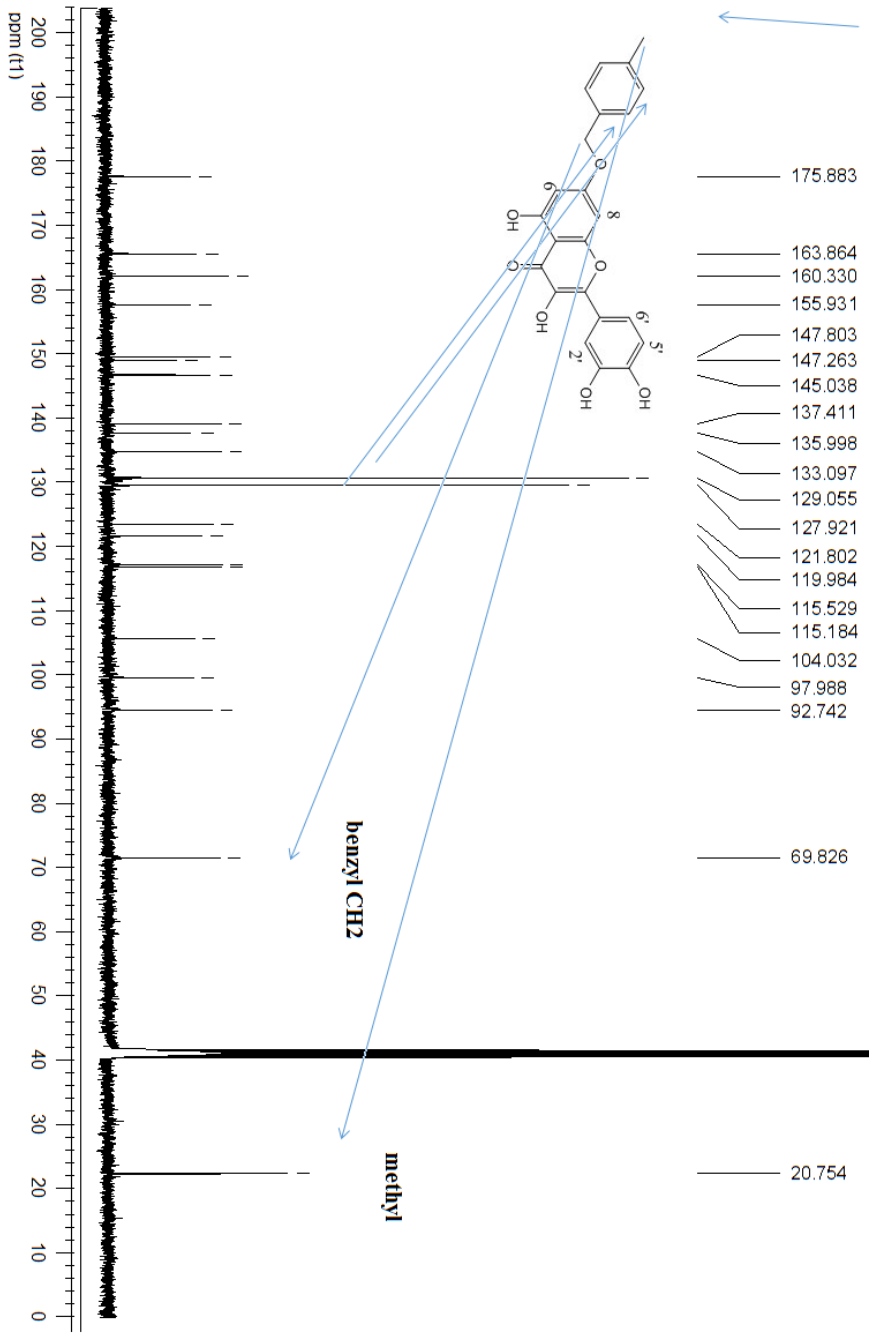

Figure 17s: ^{13}C-NMR spectrum of 7-O-Paramethylbenzyl quercetin (QPMB, 7)

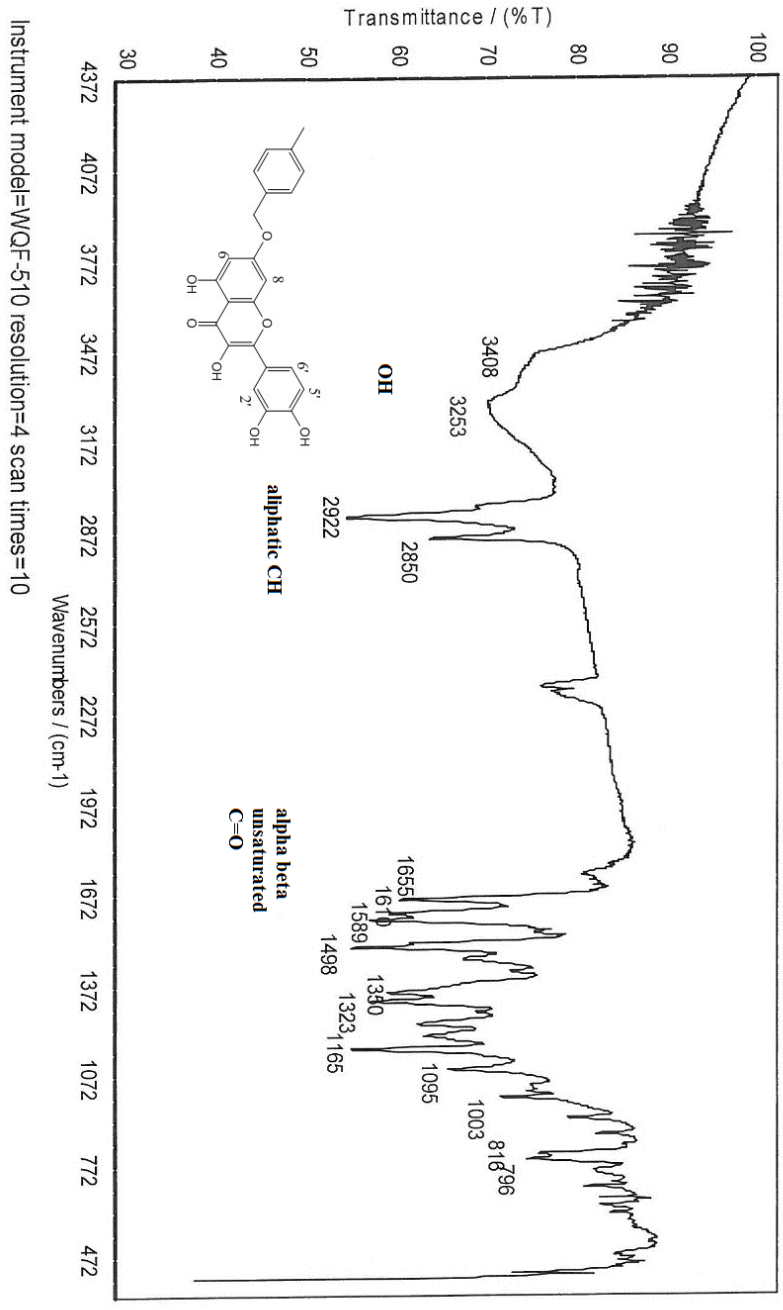

Figure 18s: IR spectrum of 7-O-Paramethylbenzyl quercetin (QPMB, 7)

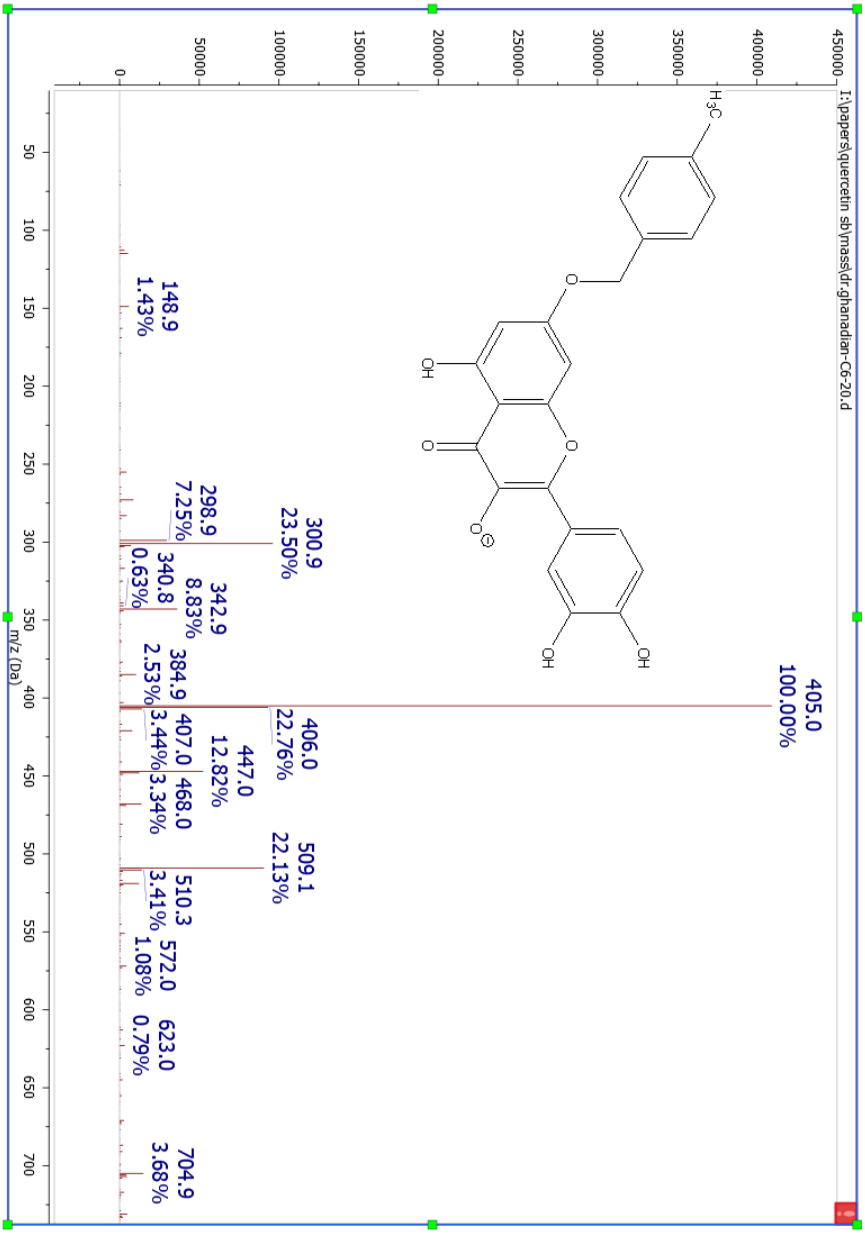

Figure 19s: Negative ESI mass spectrum of 7-O-Paramethylbenzyl quercetin (QPMB, 7) (m/z): 405 $[M-H]^-$

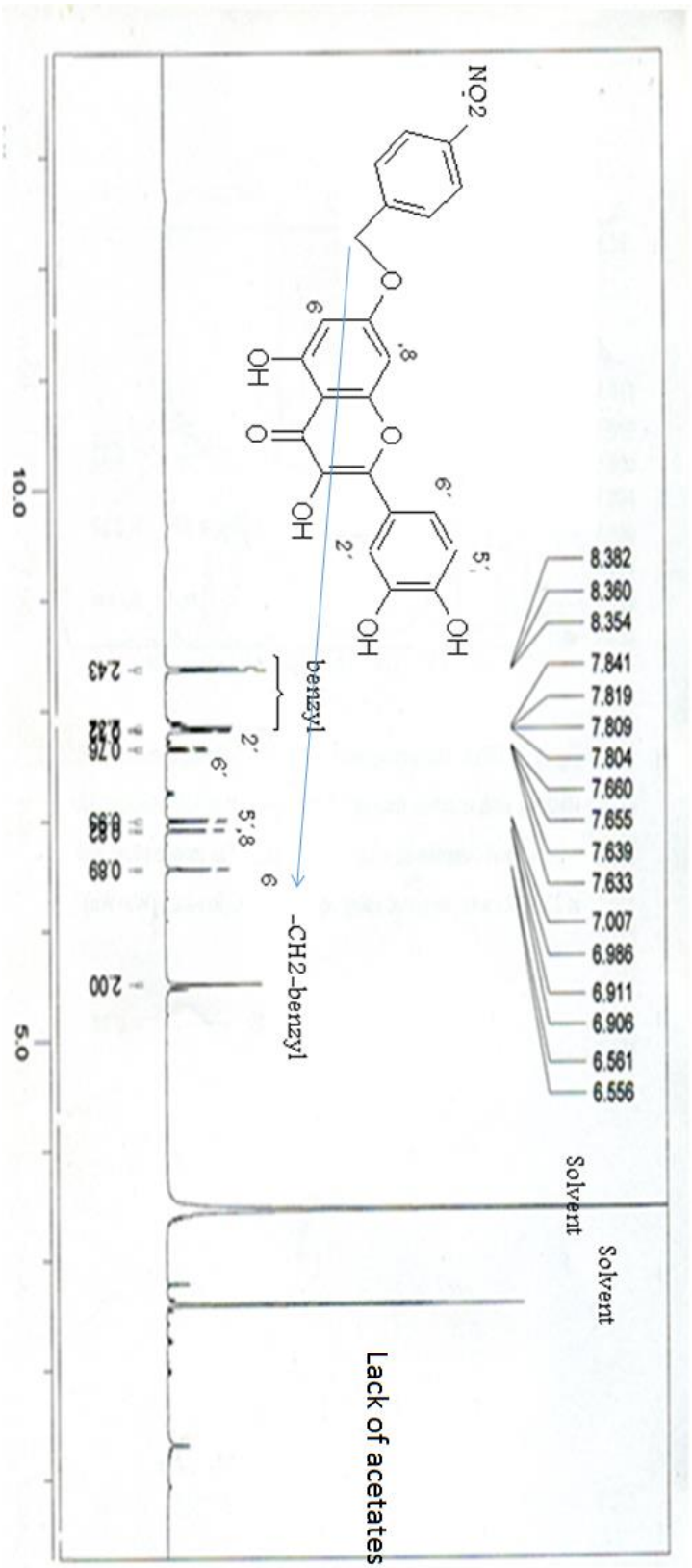

Figure 20s: ^{1}H-NMR spectrum of 7-O-Paranitrobenzyl quercetin (QPNB, 8)

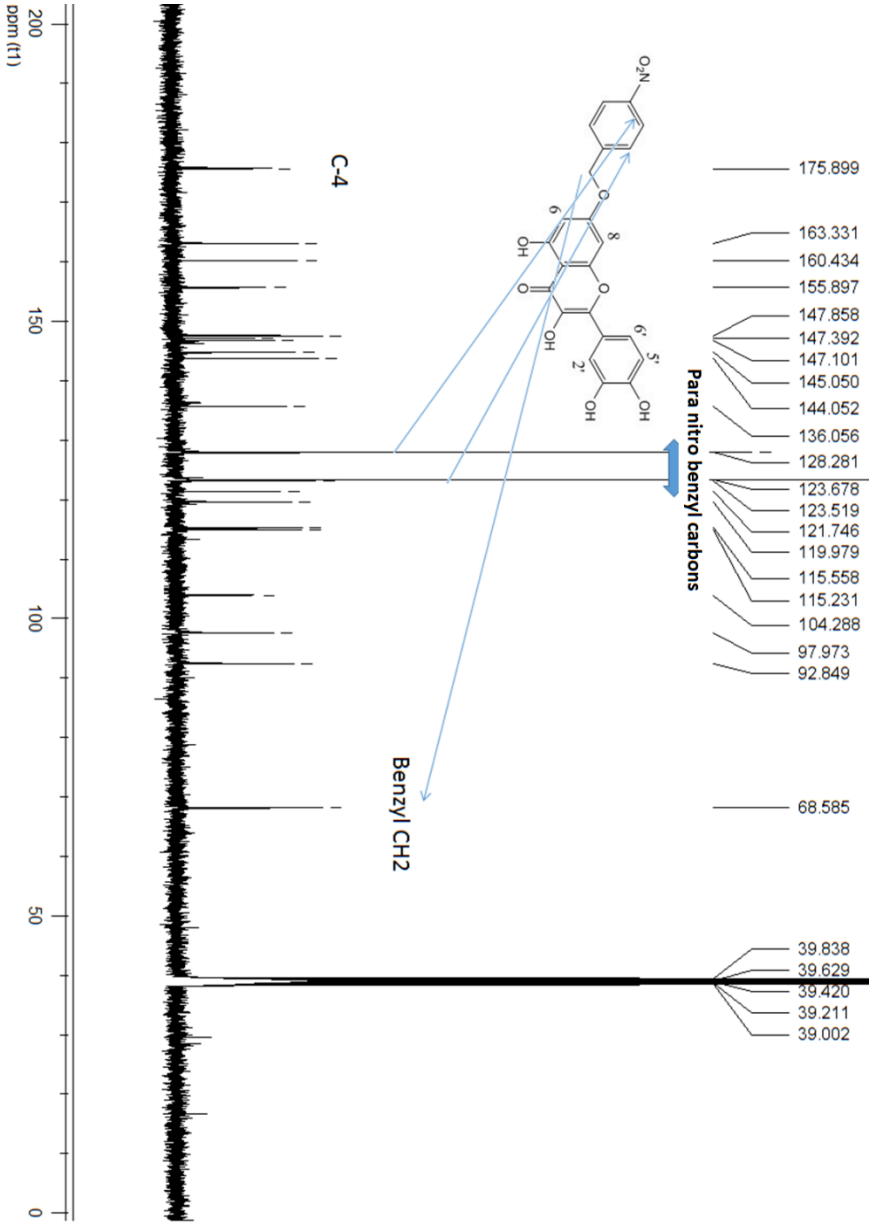

Figure 21s: ^{13}C-NMR spectrum of 7-O-Paranitrobenzyl quercetin (QPNB, 8)

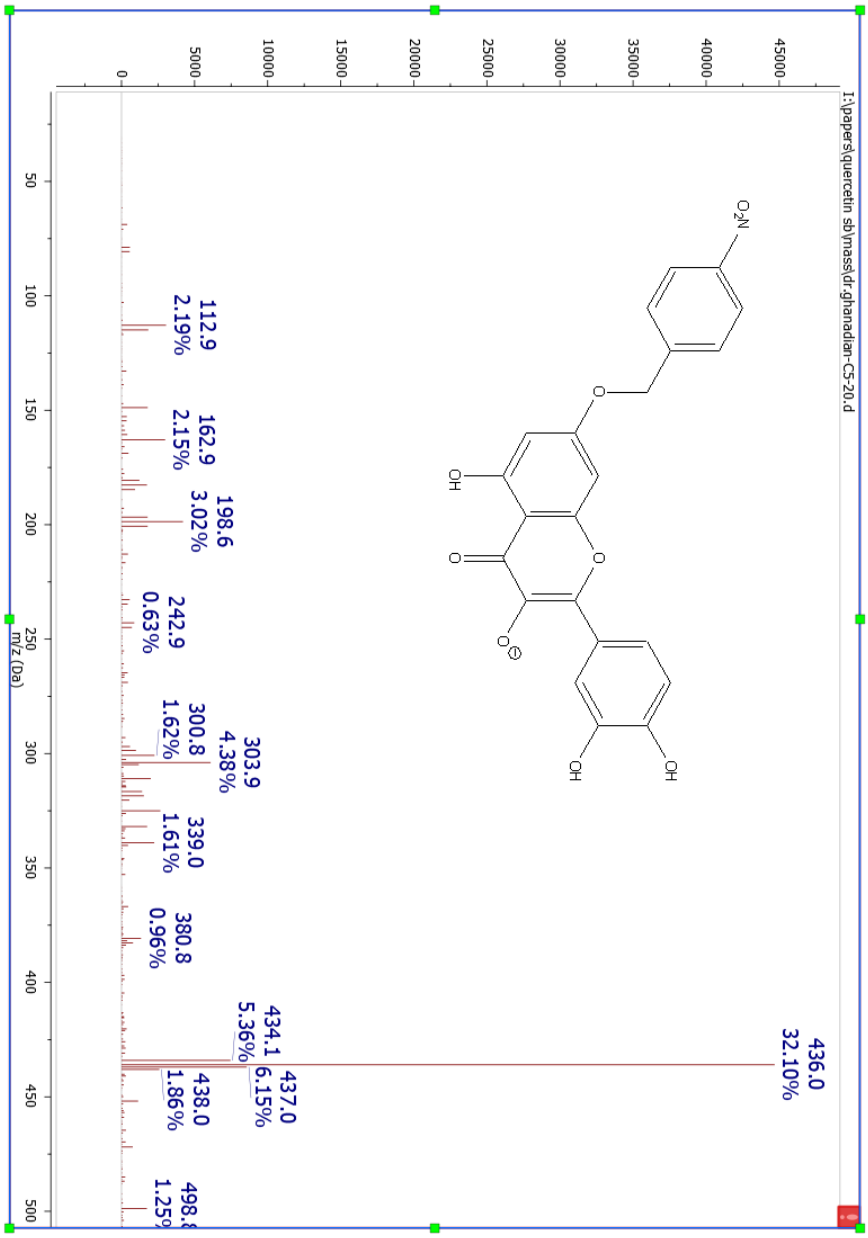

Figure 22s: Negative ESI mass of 7-O-Paranitrobenzyl quercetin (QPNB, 8)(m/z): 436 [M-H]$^-$

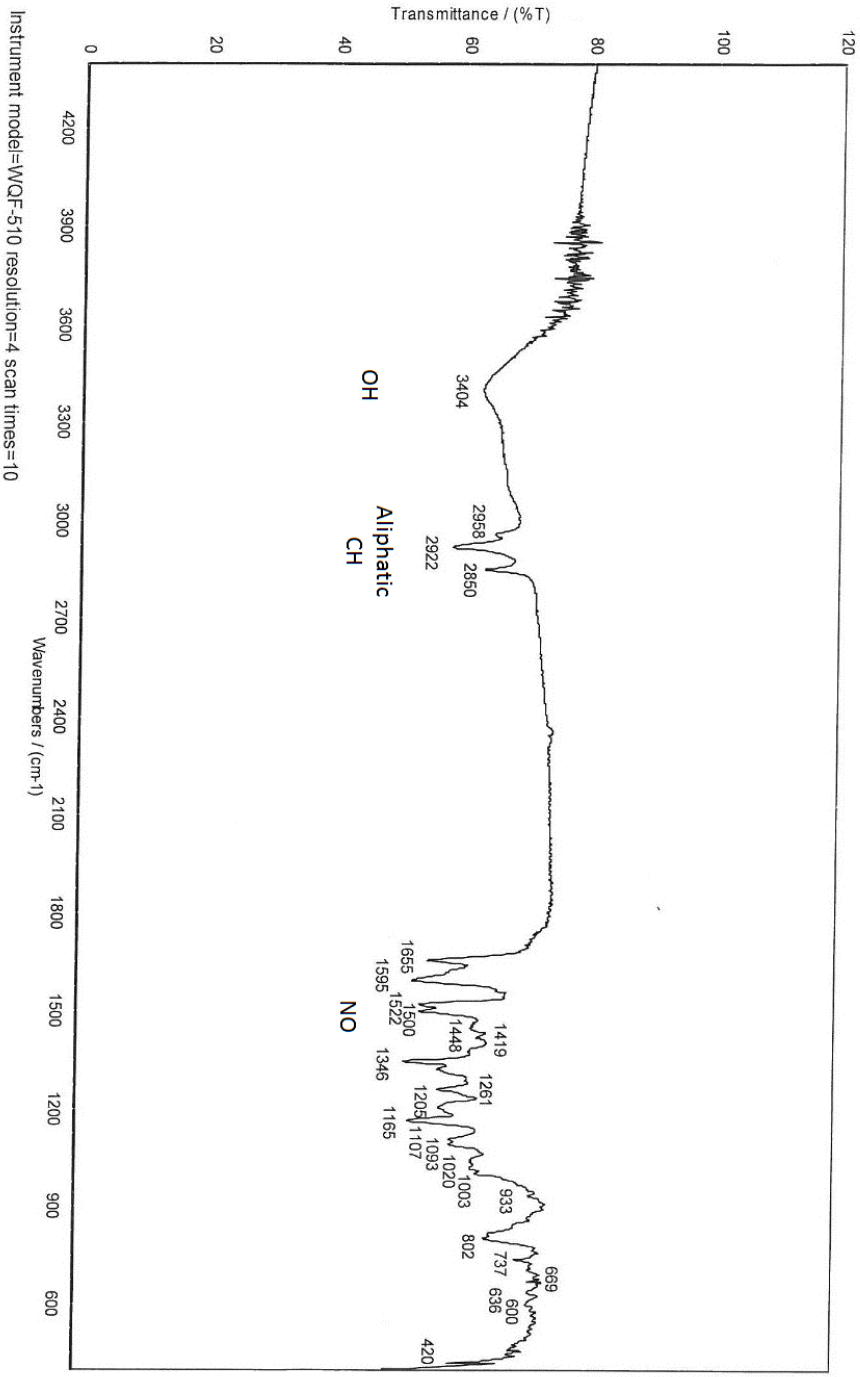

Figure 23s: IR spectrum of 7-O-Paranitrobenzyl quercetin (QPNB, 8)

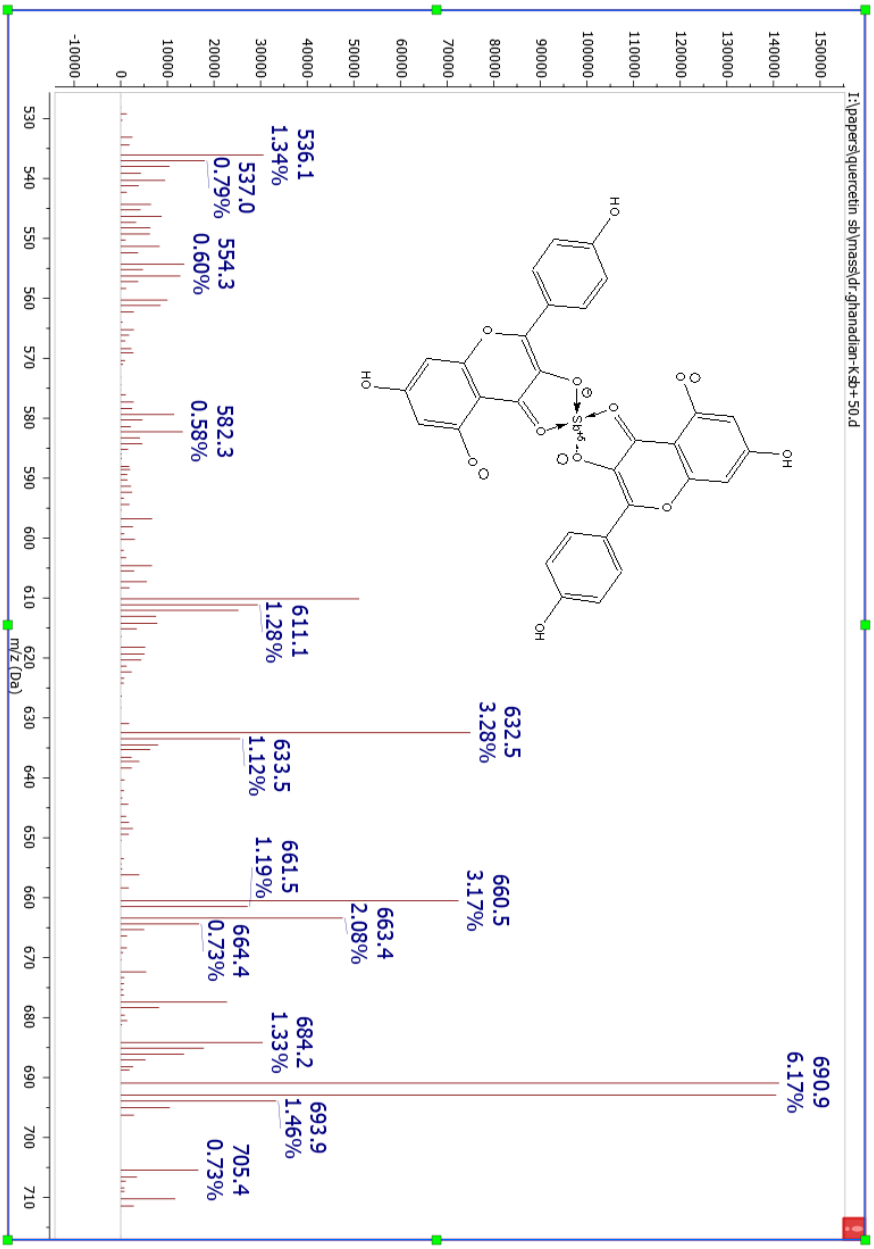

Figure 24s: Positive ESI-MS (m/z) spectrum of Sb (V) Kaempferol complex (K-Sb, 9): 690 $[C_{30}H_{16}O_{12}Sb^{+}$, 2Kaempferol+Sb$]^{+}$

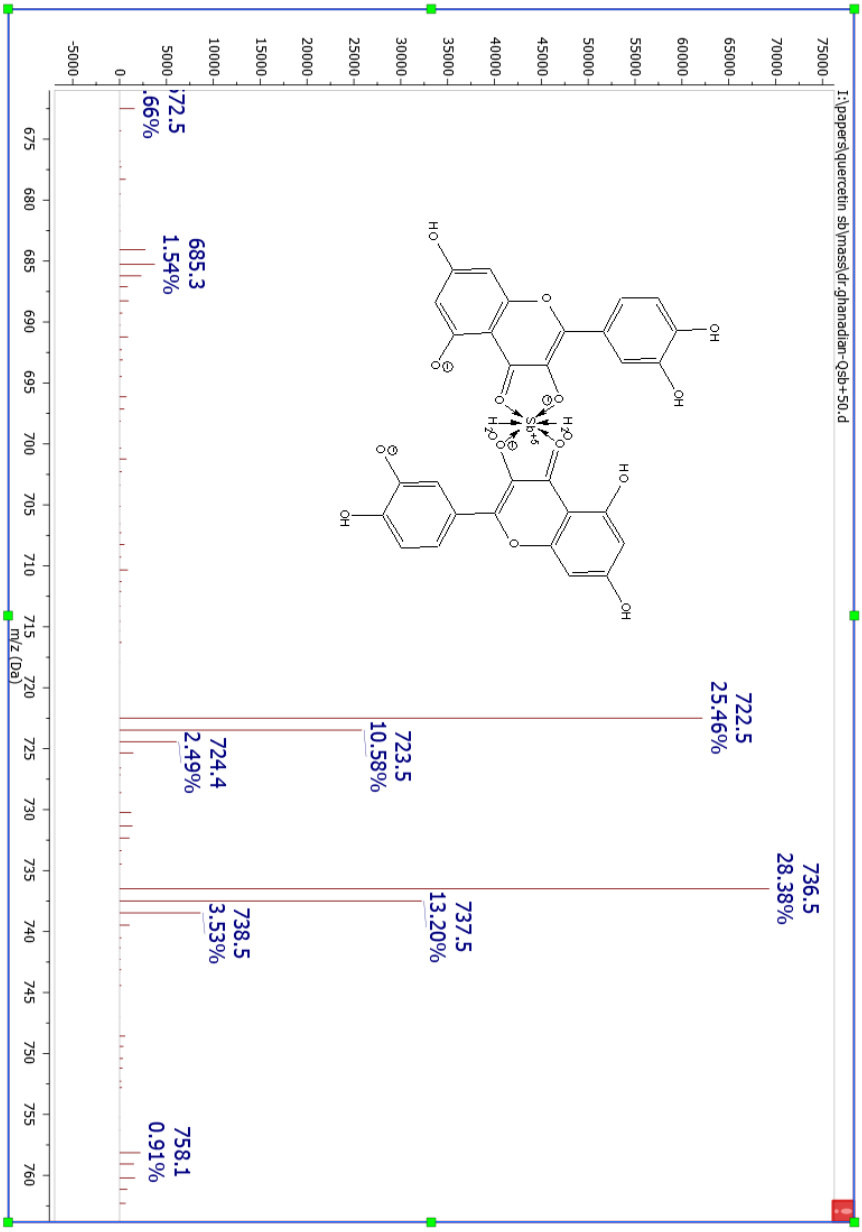

Figure 25s: Positive ESI-MS (m/z) spectrum of Sb (V) Quercetin complex (Q-Sb, 10) :ESI-MS (m/z): 758[$C_{30}H_{20}O_{16}Sb$, 2Q+Sb+2H2O]$^+$, 722[$C_{30}H_{16}O_{14}Sb$, 2Q+Sb]$^+$.

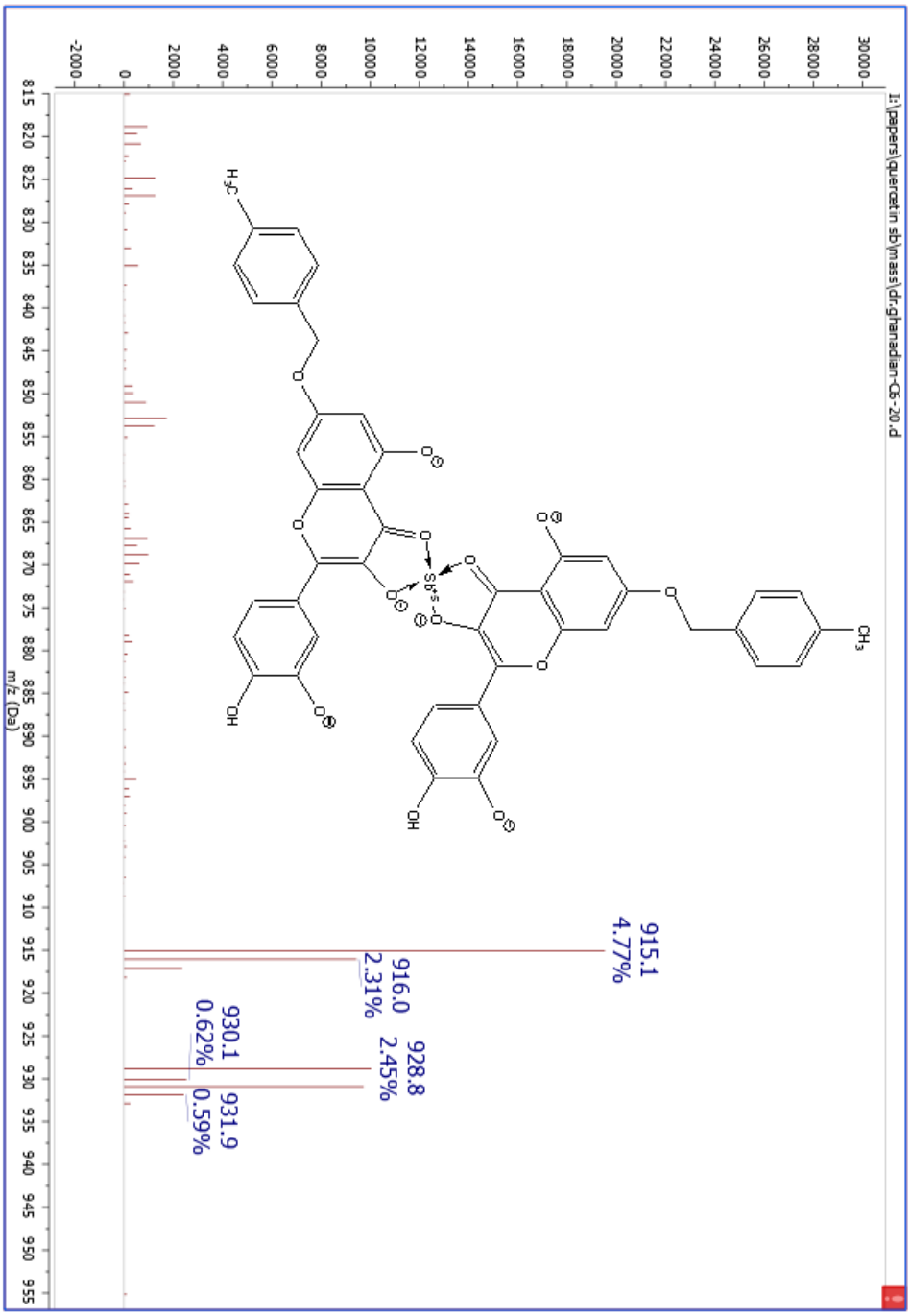

Figure 26s: Sb (V) 7-O-Paramethylbenzyl quercetin complex (QPMB-Sb, 11): Negative ESI-MS (m/z): 928 [C46H30O14Sb, 2QPMB +Sb]$^{-}$

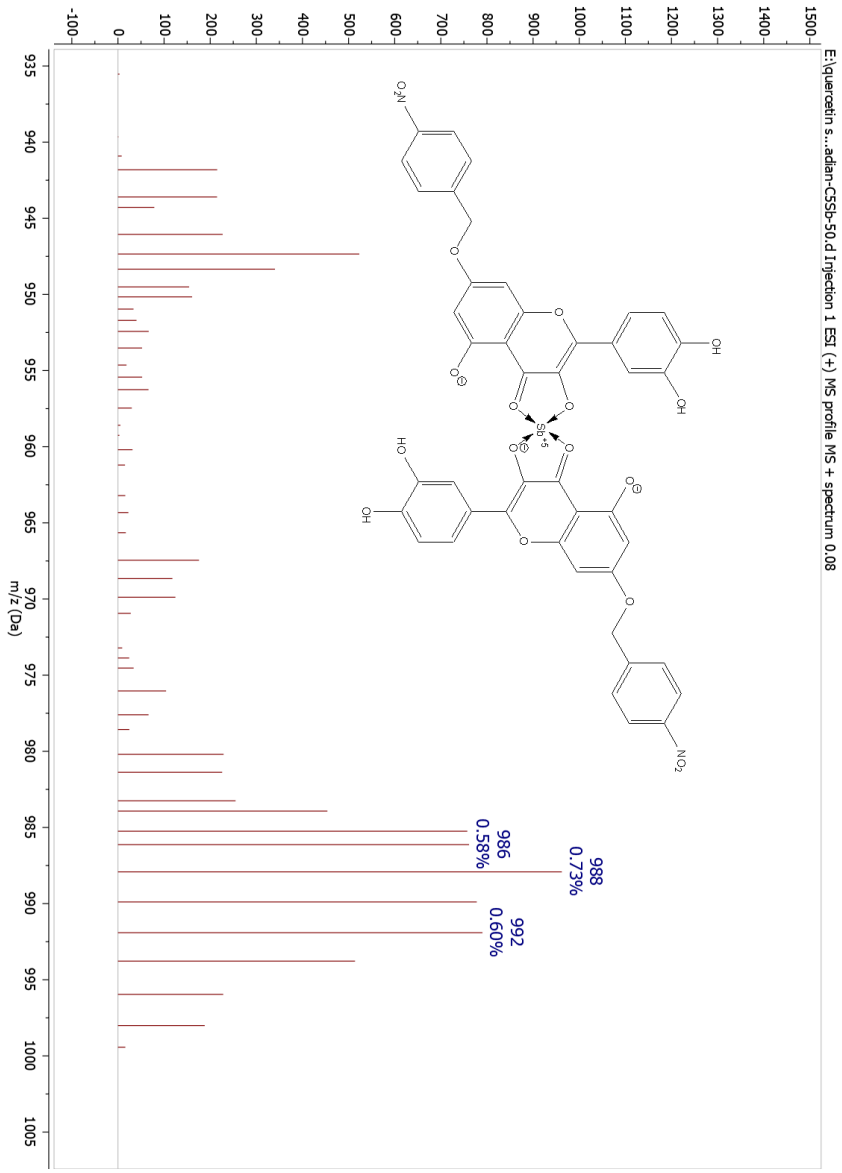

Figure 27s: Sb (V) 7-O-Paranitrobenzyl quercetin complex (QPNB-Sb, 12): Positive ESI-MS (m/z): 992 [$C_{44}H_{28}N_2O_{20}Sb$, 2QPNB +Sb]$^+$.

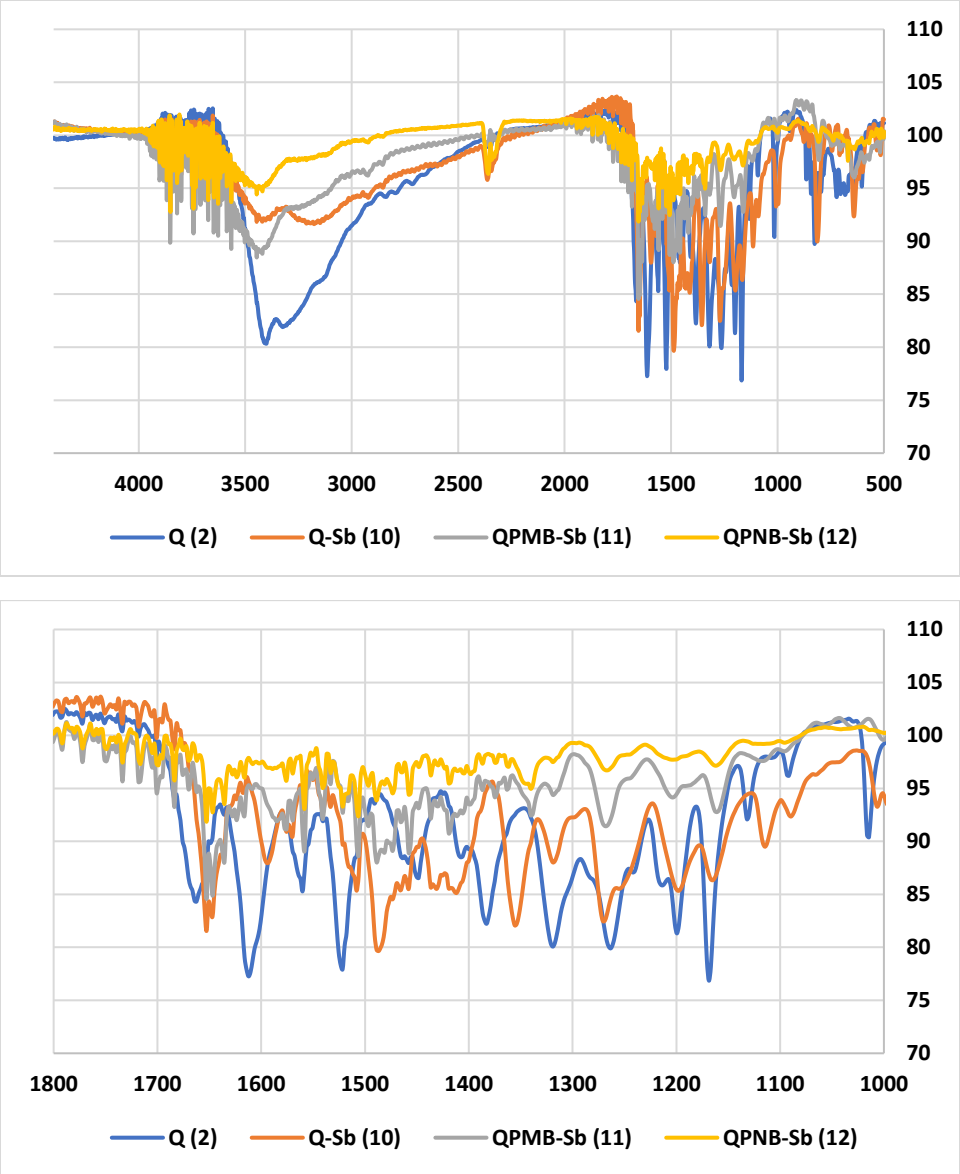

Figure 28s: Comparative IR spectra of quercetin with Sb (V) Quercetin derivative complexes