Electronic Supplementary Material (ESI) for Analytical Methods.
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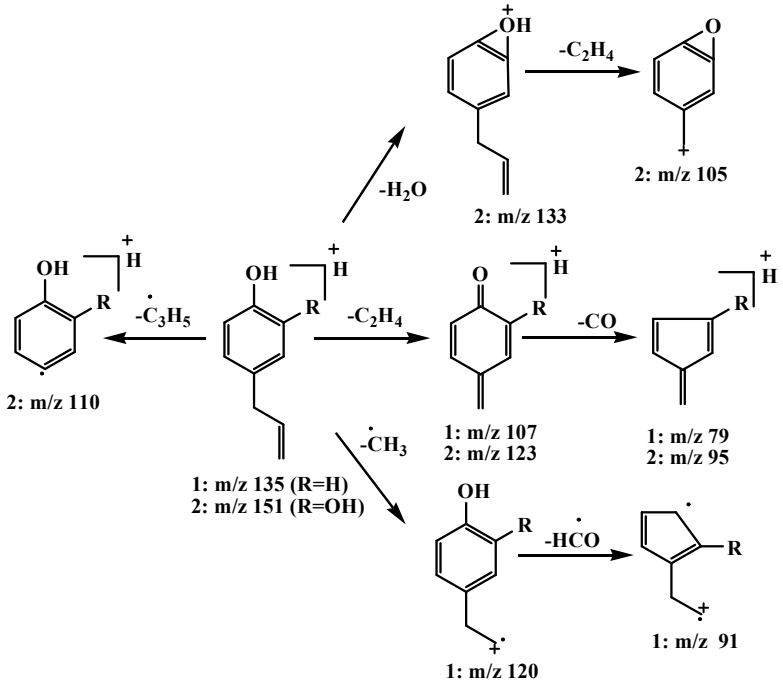
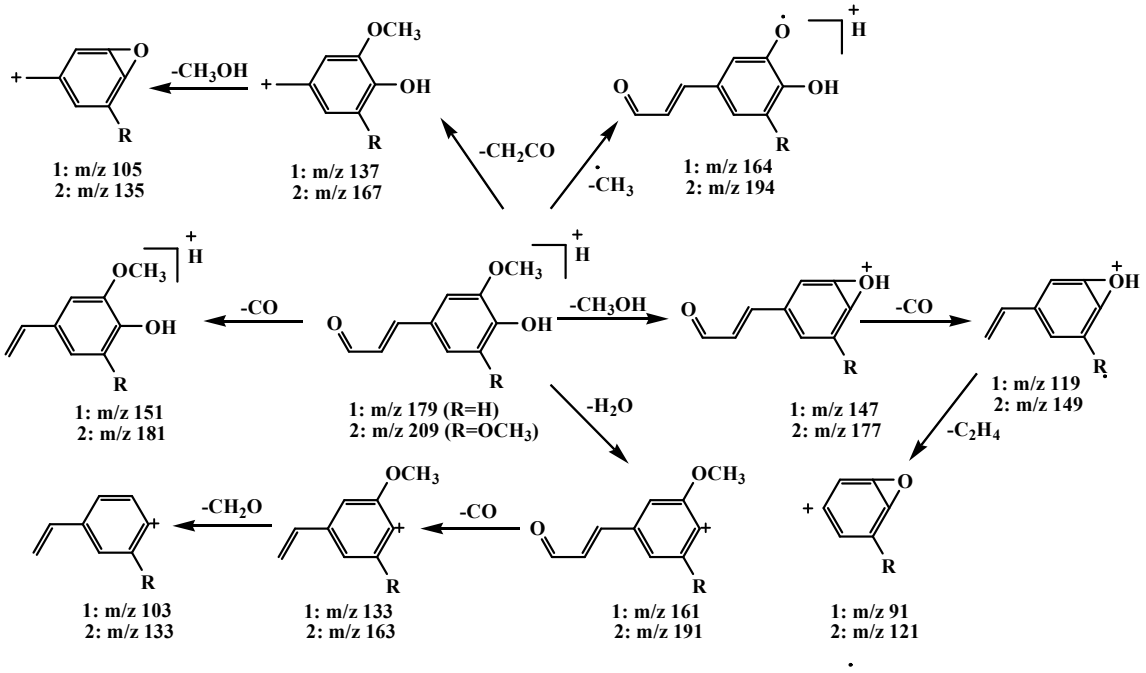
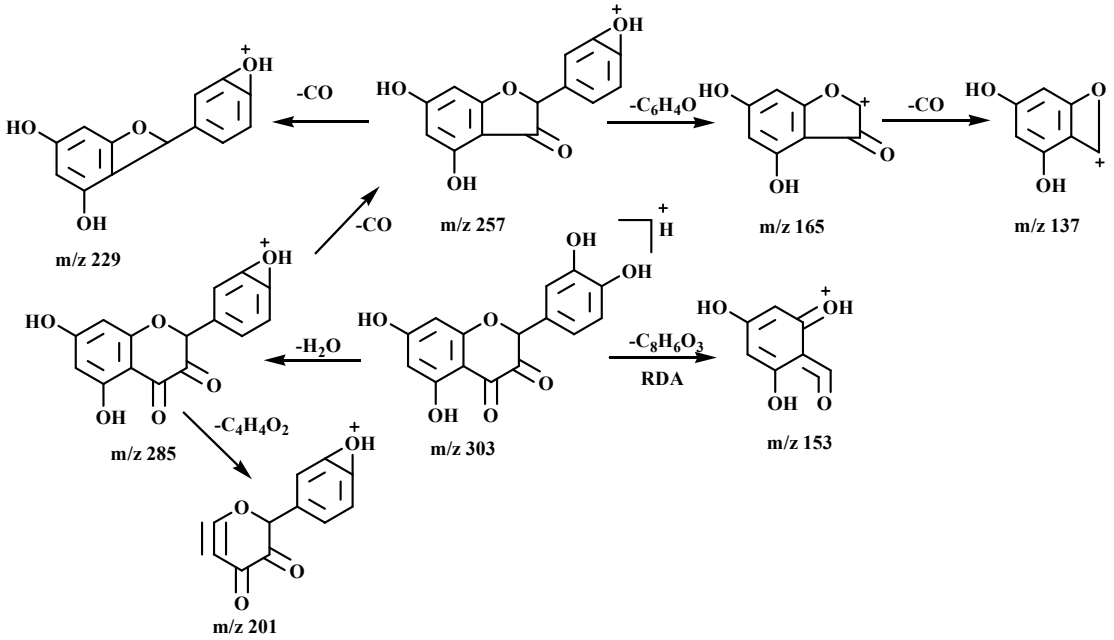
Supplementary data



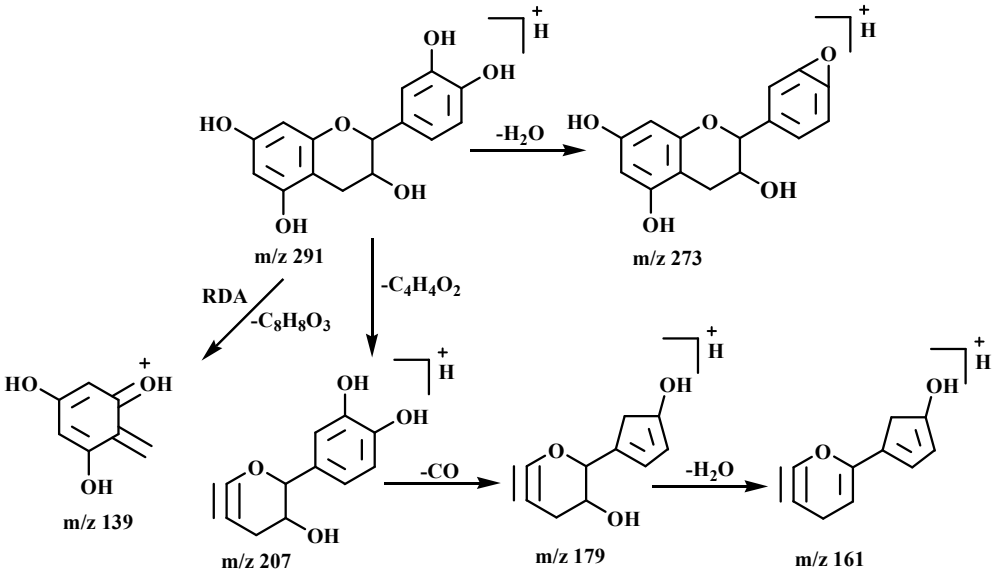
Scheme S1: Proposed ESI-MS/MS fragmentation pathway for Chavicol (1) and Hydroxychavicol (2)



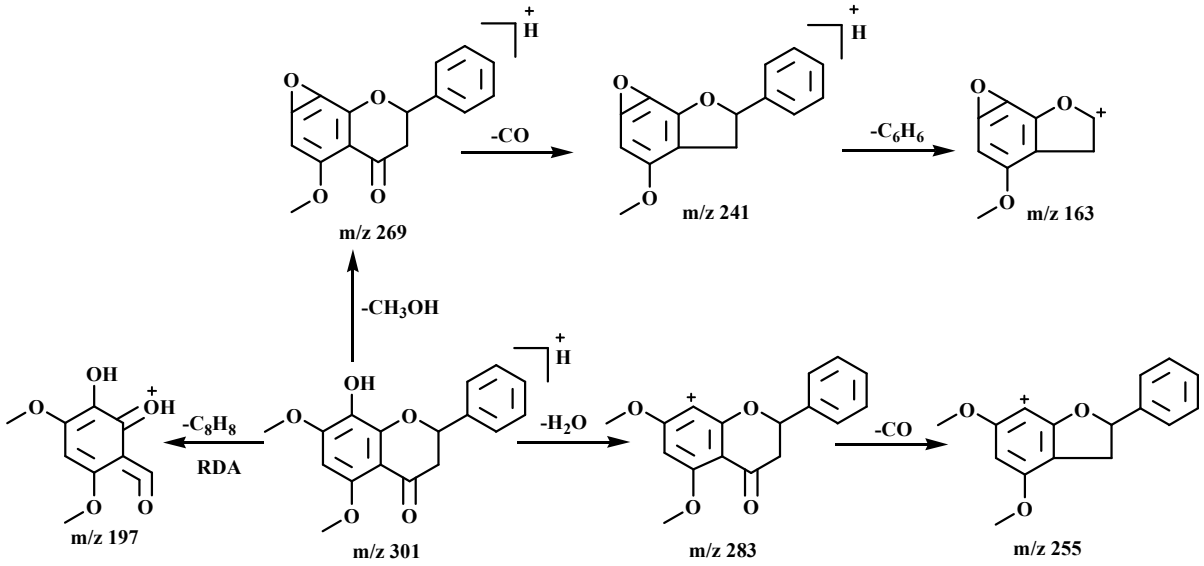
Scheme S2: Proposed ESI-MS/MS fragmentation pathway for Coniferaldehyde (1) and Sinapinaldehyde (2).



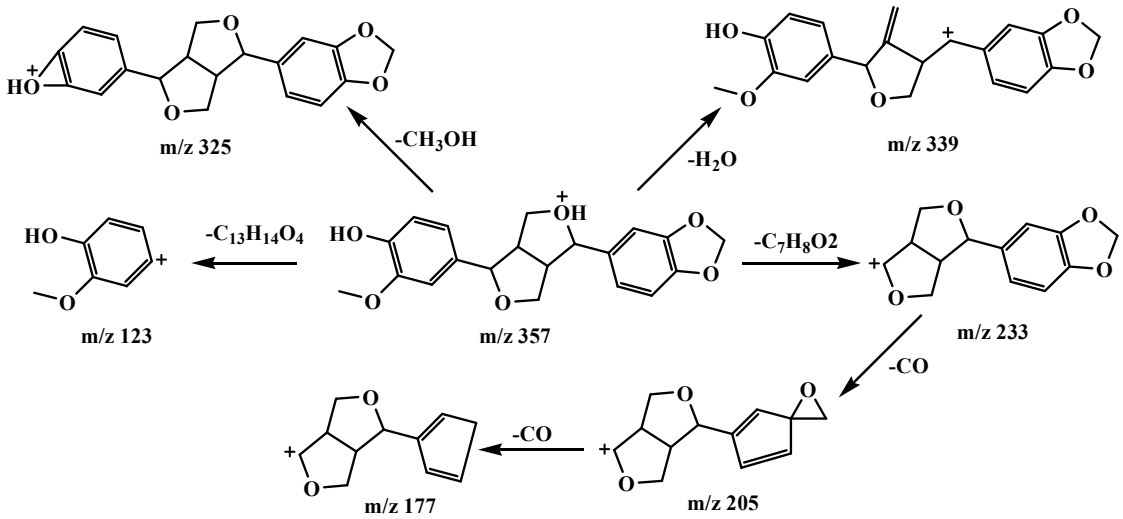
Scheme S3: Proposed ESI-MS/MS fragmentation pathway for Quercetin.



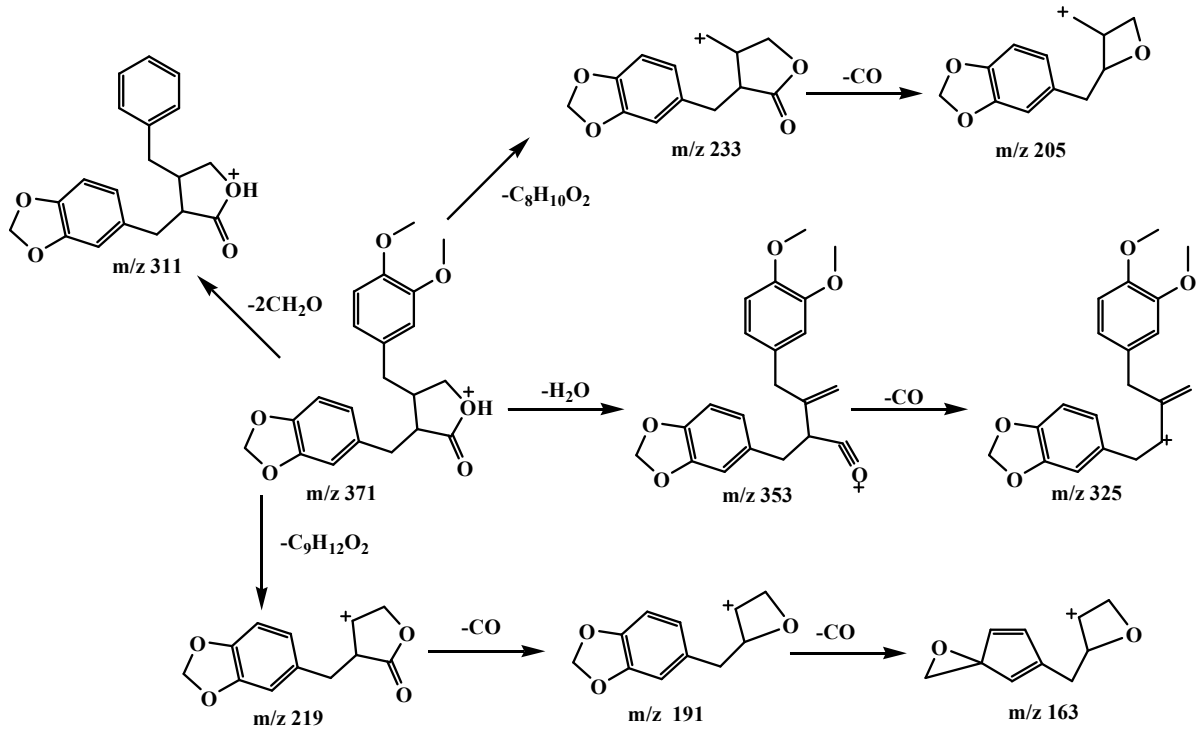
Scheme S4: Proposed ESI-MS/MS fragmentation pathway for Catechin.



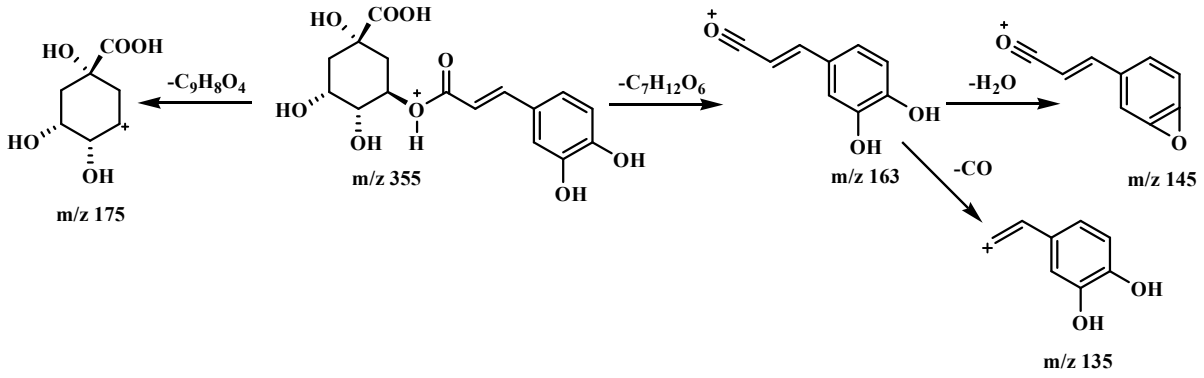
Scheme S5: Proposed ESI-MS/MS fragmentation pathway for 8-Hydroxy-5, 7-dimethoxyflavanone.



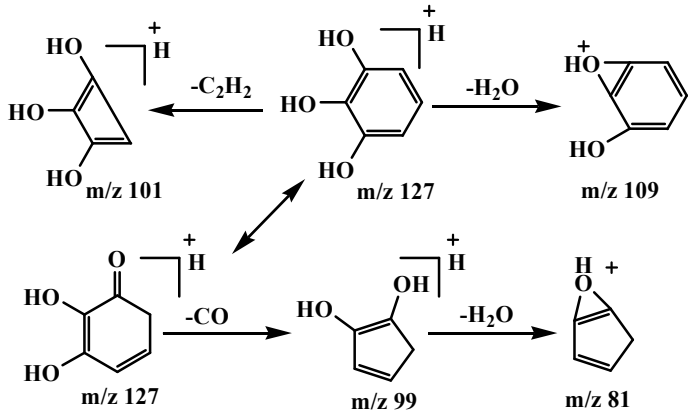
Scheme S6: Proposed ESI-MS/MS fragmentation pathway for Pluviatilol.



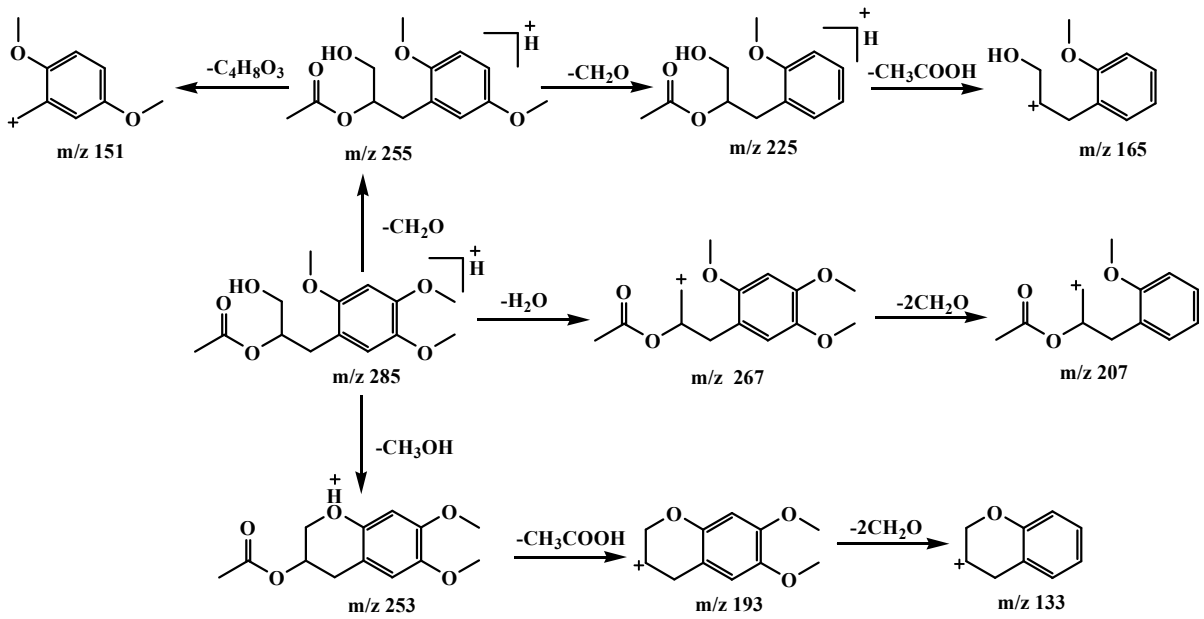
Scheme S7: Proposed ESI-MS/MS fragmentation pathway for Kusunokinin.



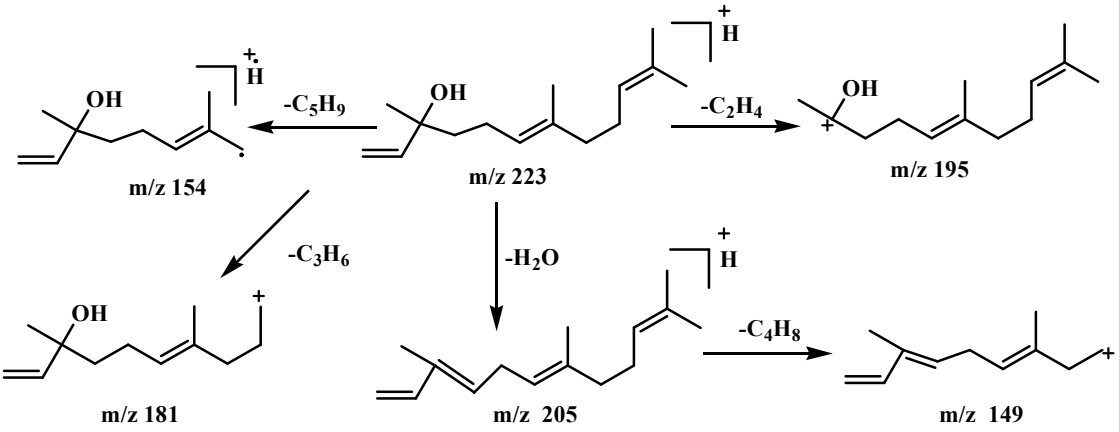
Scheme S8: Proposed ESI-MS/MS fragmentation pathway for Chlorogenic acid.



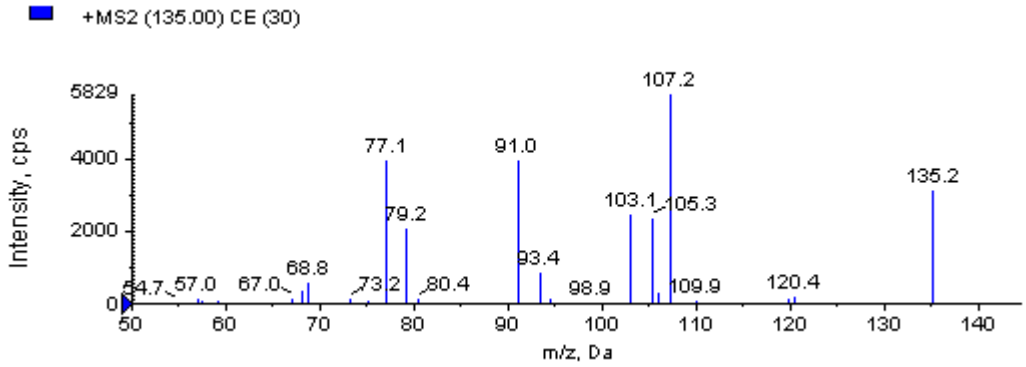
Scheme S9: Proposed ESI-MS/MS fragmentation pathway for Pyrogallol.



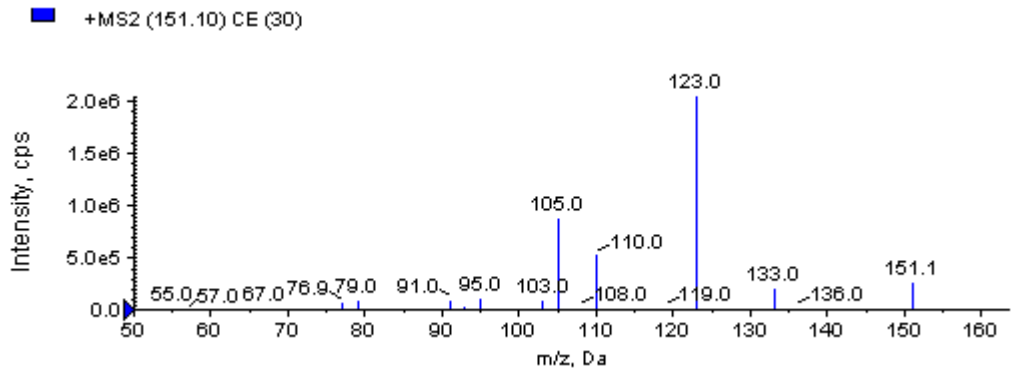
Scheme S10: Proposed ESI-MS/MS fragmentation pathway for 3-(2, 4, 5-Trimethoxyphenyl)-2-acetoxy-1-hydroxypropane



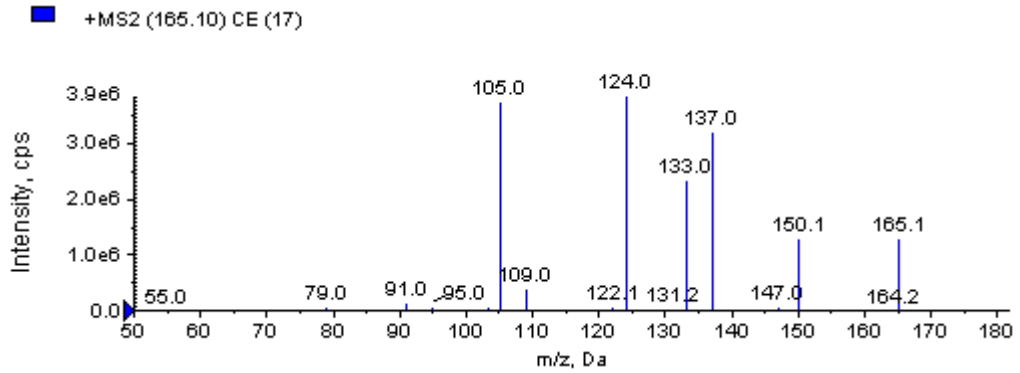
Scheme S11: Proposed ESI-MS/MS fragmentation pathway for Nerolidol.



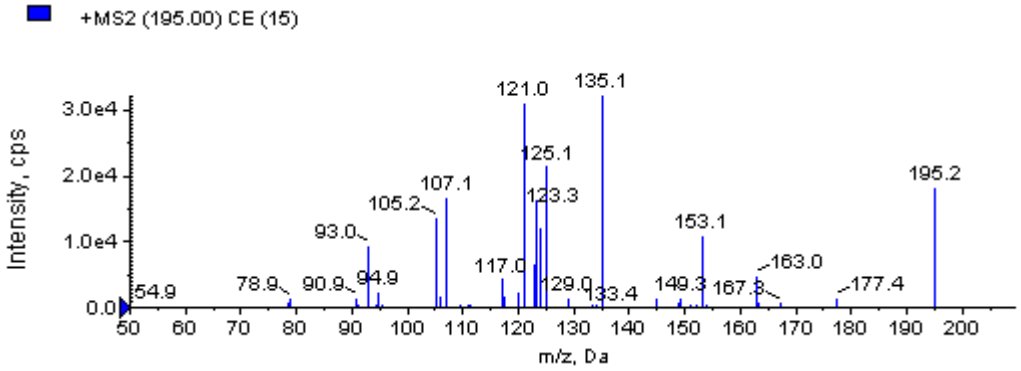
MS2 Spectra of Chavicol (m/z 135).



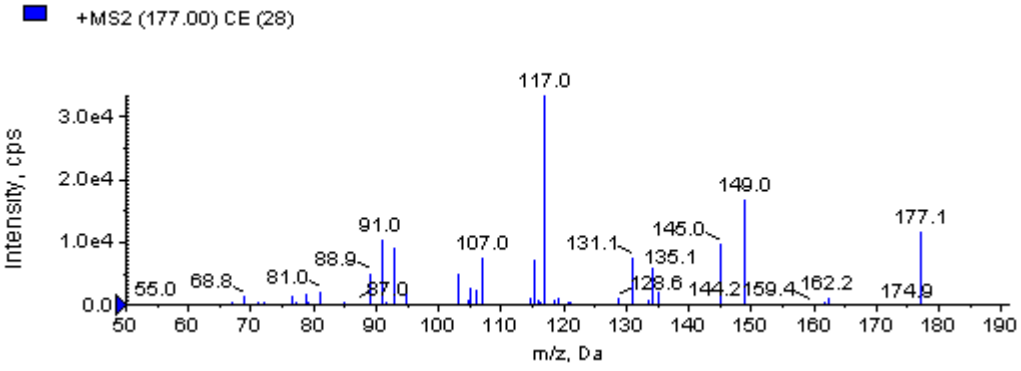
MS2 Spectra of Hydroxychavicol (m/z 151).



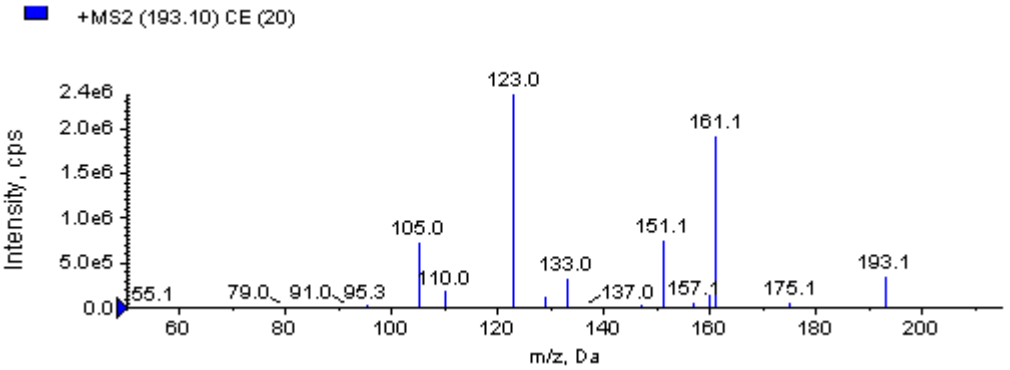
MS2 Spectra of Eugenol (m/z 165).



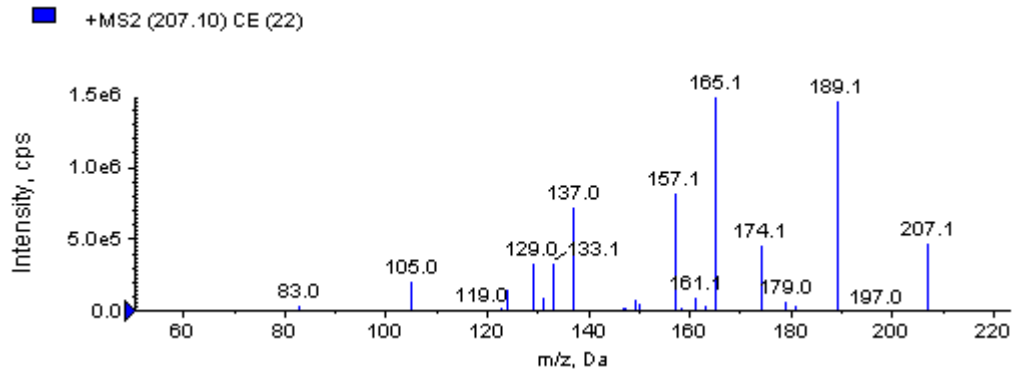
MS2 Spectra of Methoxy eugenol (m/z 195).



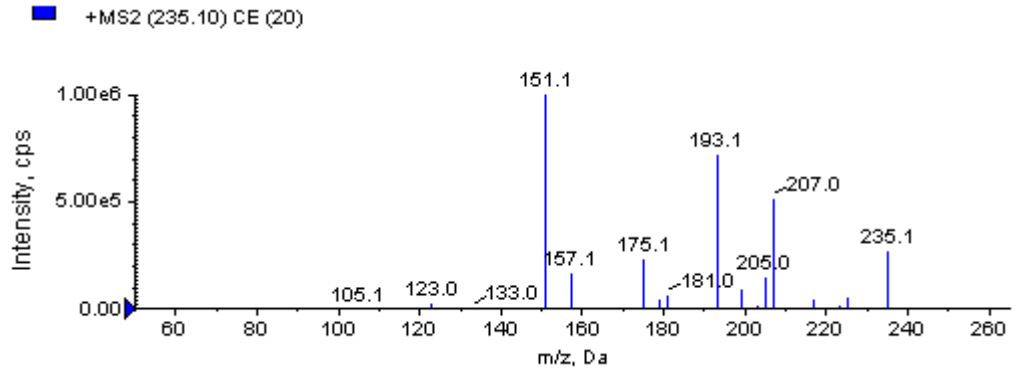
MS2 Spectra of Chavicol acetate (m/z 177).



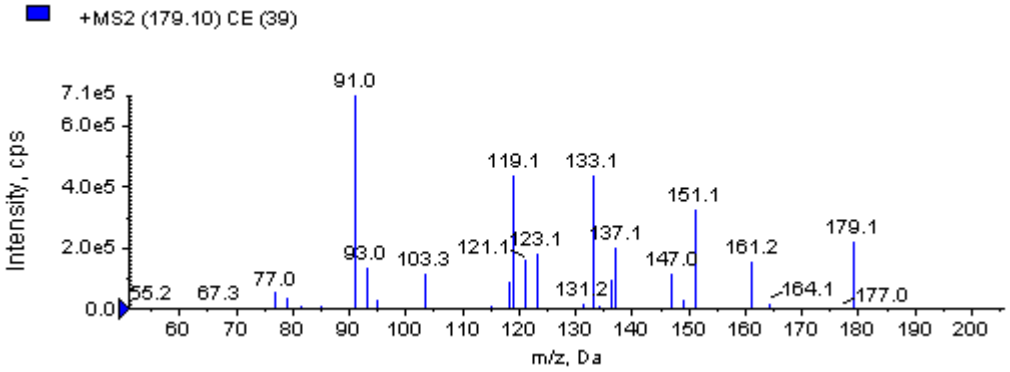
MS2 Spectra of Allylpyrocatechol monoacetate (m/z 193).



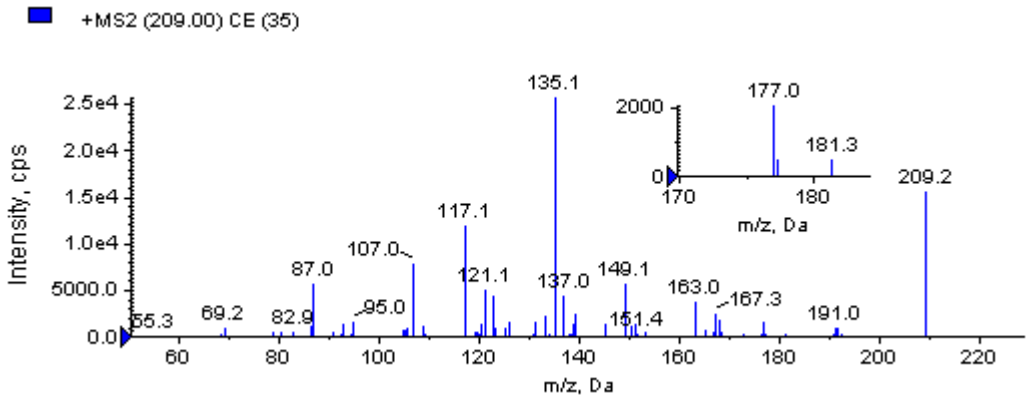
MS2 Spectra of Eugenyl acetate (m/z 207).



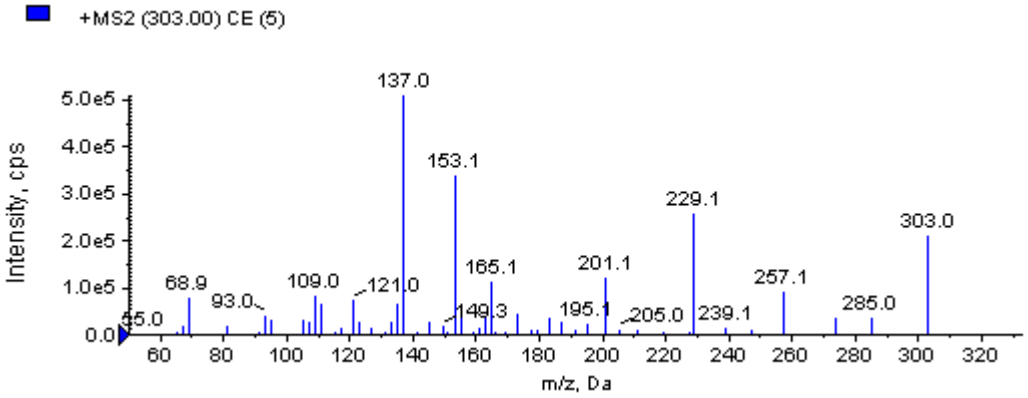
MS2 Spectra of Allylpyrocatechol-3, 4-diacetate (m/z 235).



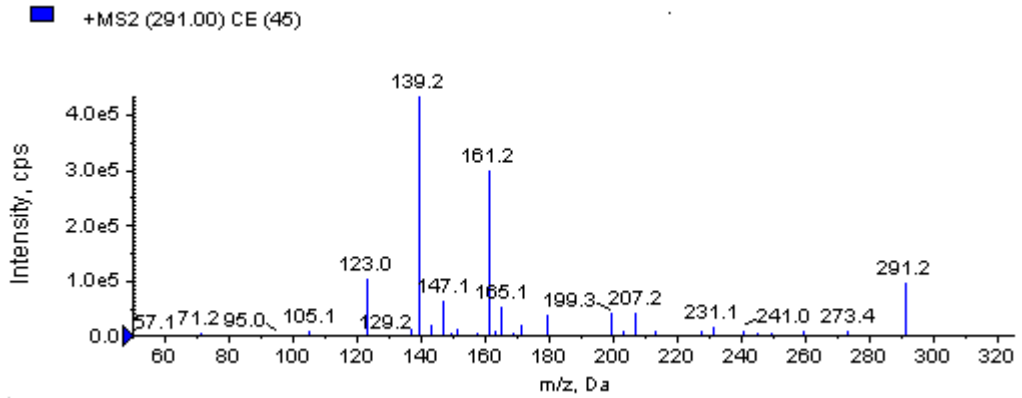
MS2 Spectra of Coniferaldehyde (m/z 179).



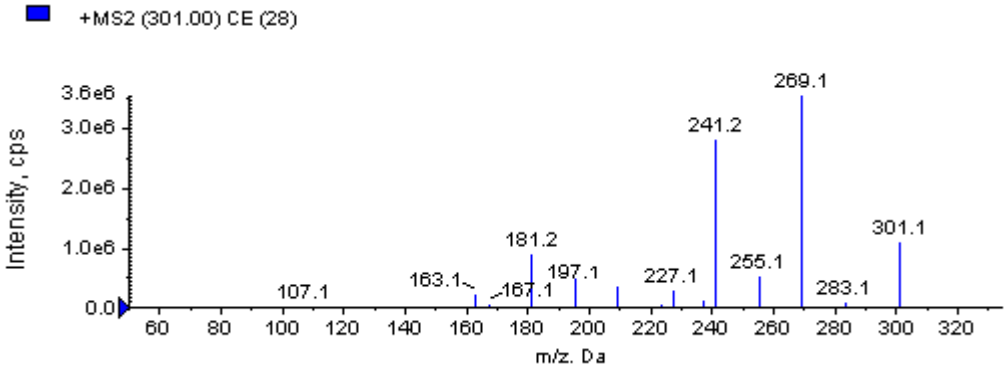
MS2 Spectra of Sinapinaldehyde (m/z 209).



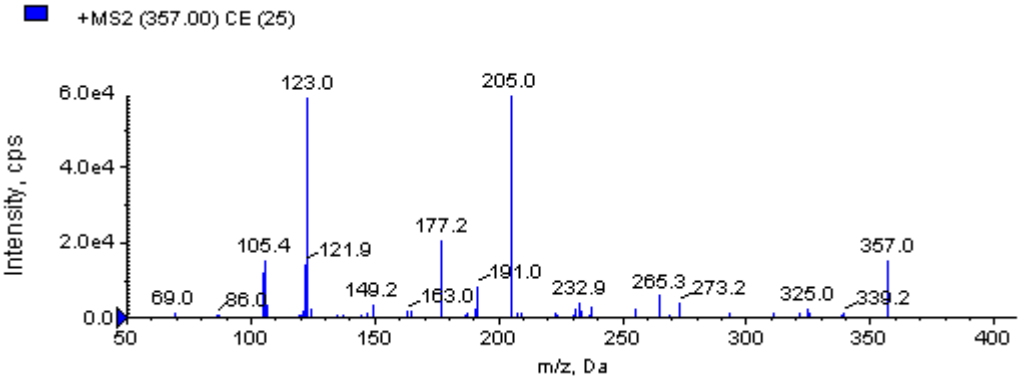
MS2 Spectra of Quercetin (m/z 303).



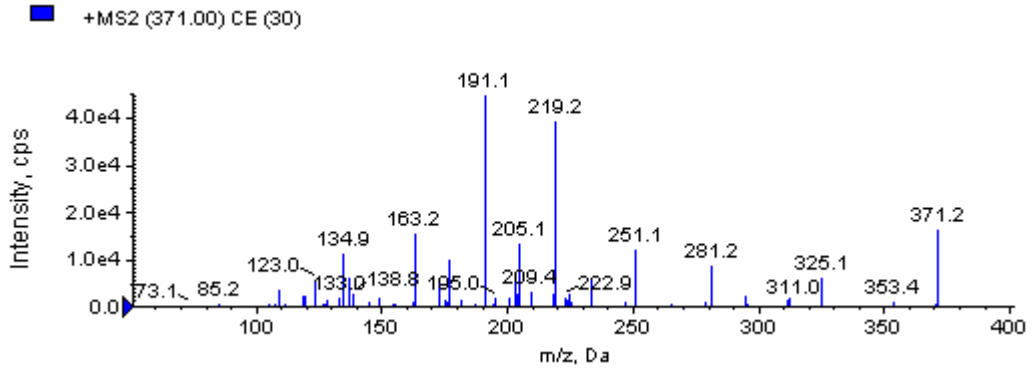
MS2 Spectra of Catechin (m/z 291).



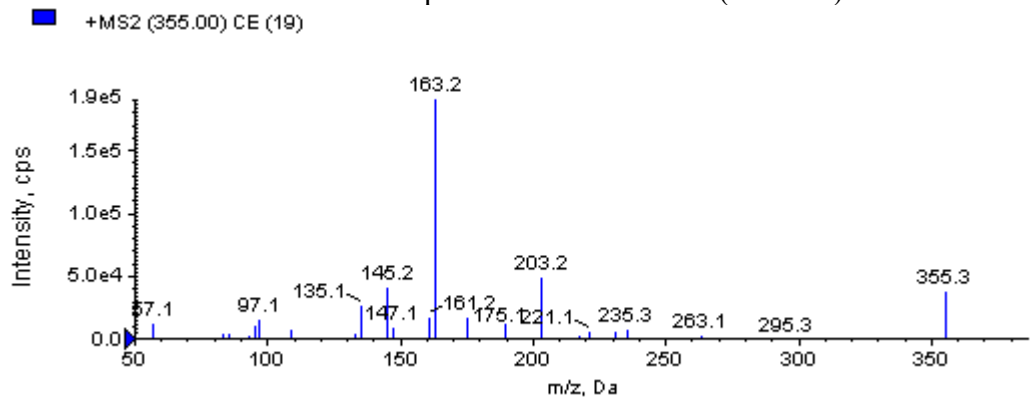
MS2 Spectra of 8-Hydroxy-5, 7-dimethoxyflavanone (m/z 301).



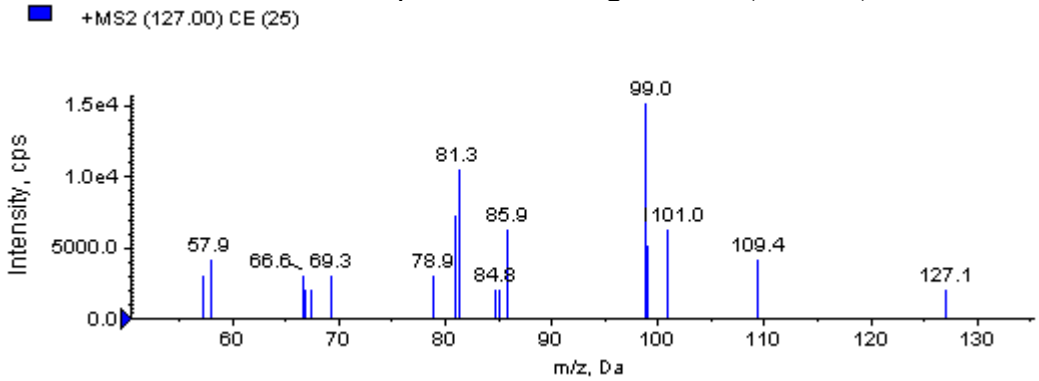
MS2 Spectra of Pluviatilol (m/z 357).



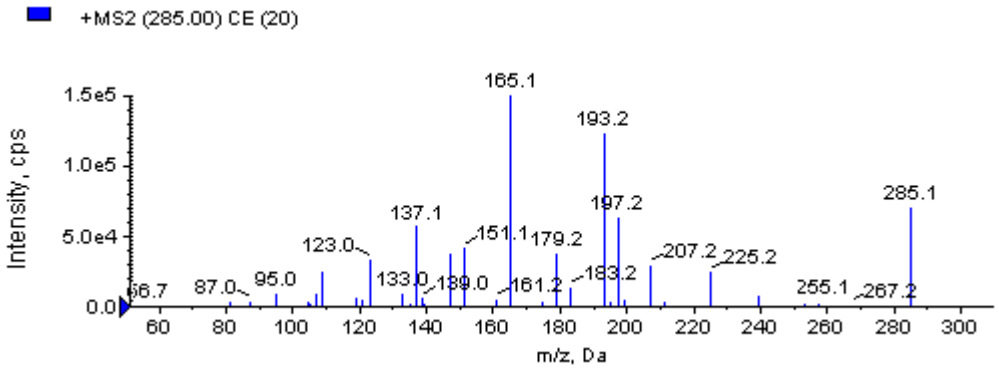
MS2 Spectra of Kusunokinin (m/z 371).



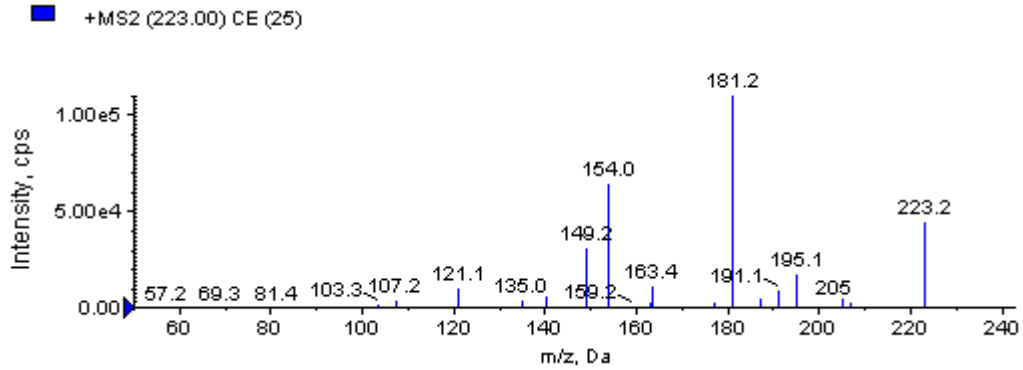
MS2 Spectra of Chlorogenic acid (m/z 355).



MS2 Spectra of Pyrogallol (m/z 127).



MS2 Spectra of 3-(2, 4, 5-Trimethoxyphenyl)-2-acetoxy-1-hydroxypropane (m/z 285).



MS2 Spectra of Nerolidol (m/z 223).

Response factor for different concentrations

Response Factor

Allylpyrocatechol-3, 4-diacetate	Eugenyl acetate	Eugenol
26.2	1.3	0.1
26.3	1.3	0.2
26.4	1.3	0.2
25.8	1.3	0.2
25.7	1.3	0.2
25.5	1.2	0.2
24.6	1.1	0.2

Residual analysis was performed to ascertain linearity

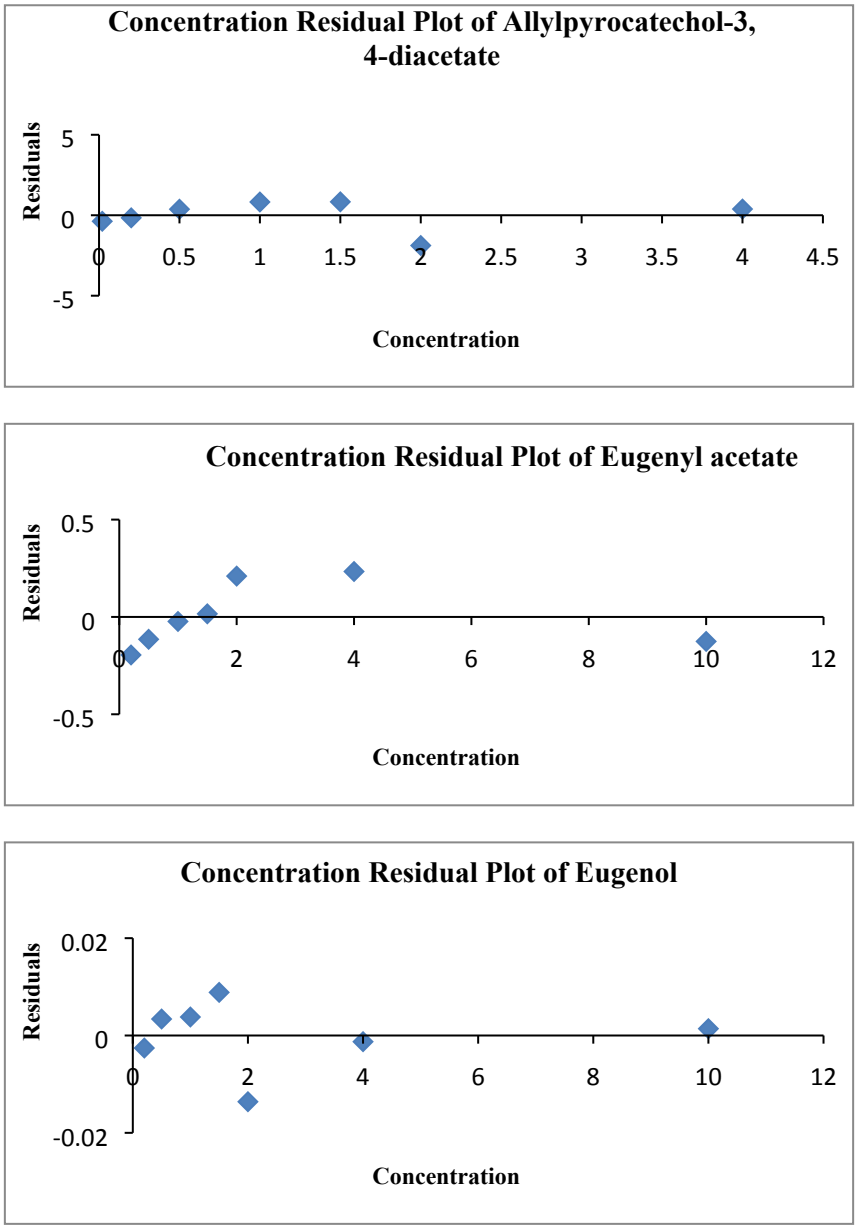
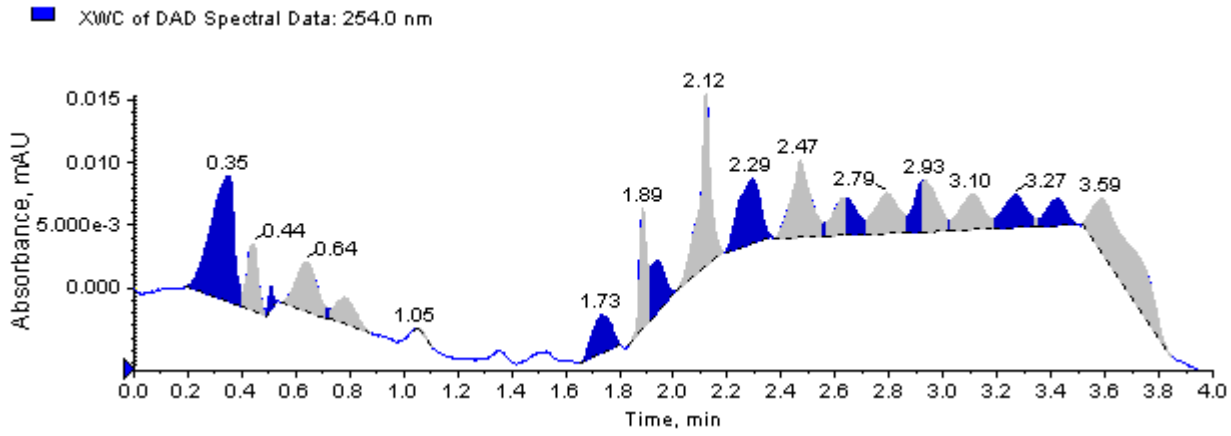


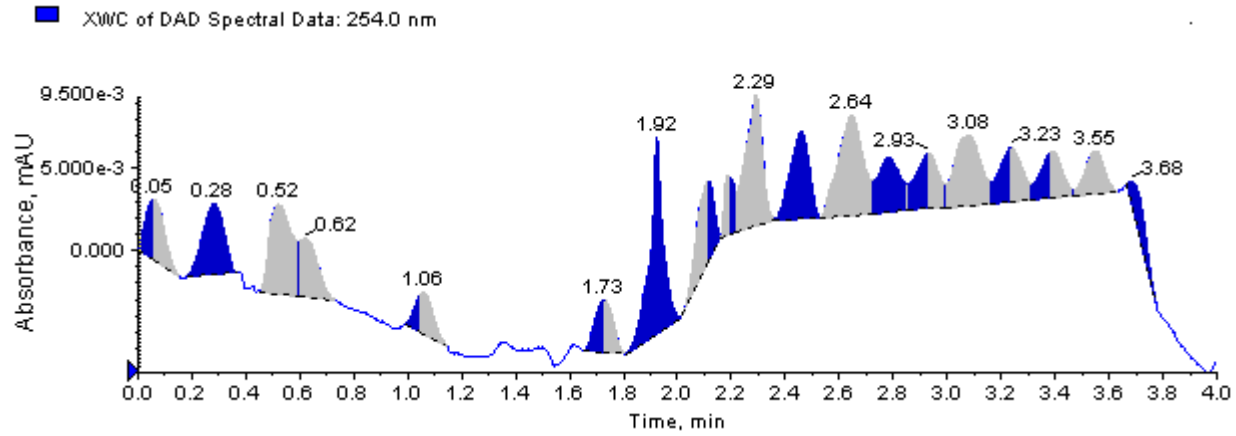
Figure S1. Concentration Vs Residual plot of allylpyrocatechol-3, 4-diacetate, eugenyl acetate and eugenol.

<u>Results of column and MP screening :</u> UPLC chromatograms of *Piper betle* (Bangladeshi) leaf extract

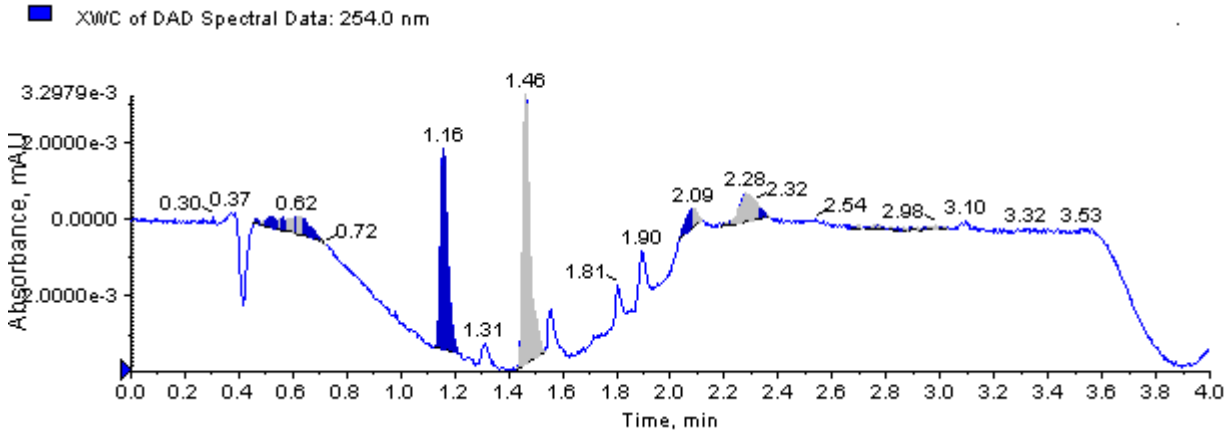
Column: ACQUITY BEH C18 column (50 mm × 2.1 mm, 1.7 µm), **Mobile phase:** Water–methanol



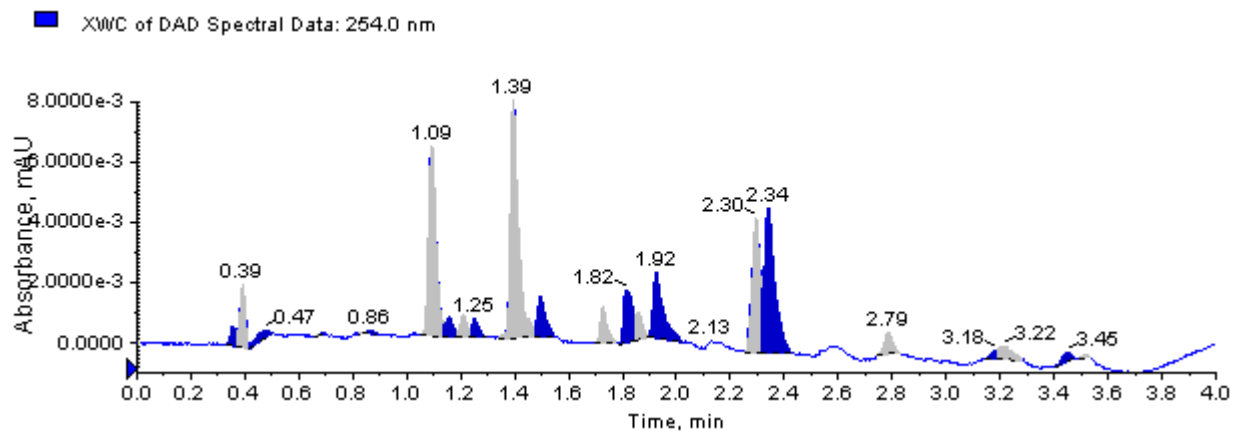
Column: ACQUITY BEH C18 column (50 mm × 2.1 mm, 1.7 µm), **Mobile phase:** 0.1% formic acid in water (A) – methanol (B)



Column: ACQUITY BEH C18 column (50 mm × 2.1 mm, 1.7 µm), **Mobile phase:** Water (A)-acetonitrile (B)



Column: ACQUITY BEH C18 column (50 mm × 2.1 mm, 1.7 µm), **Mobile phase:** 0.1% formic acid in water (A) – acetonitrile (B)



Column: ACQUITY CSH C18 (100 mm × 2.1 mm, 1.7 µm), **Mobile phase:** 0.1% formic acid in water (A) – acetonitrile (B)