Supporting Information

Article

Phytochemical Characterization of Five Edible Purple-Reddish Vegetables: Anthocyanins, Flavonoids, and Phenolic Acid Derivatives

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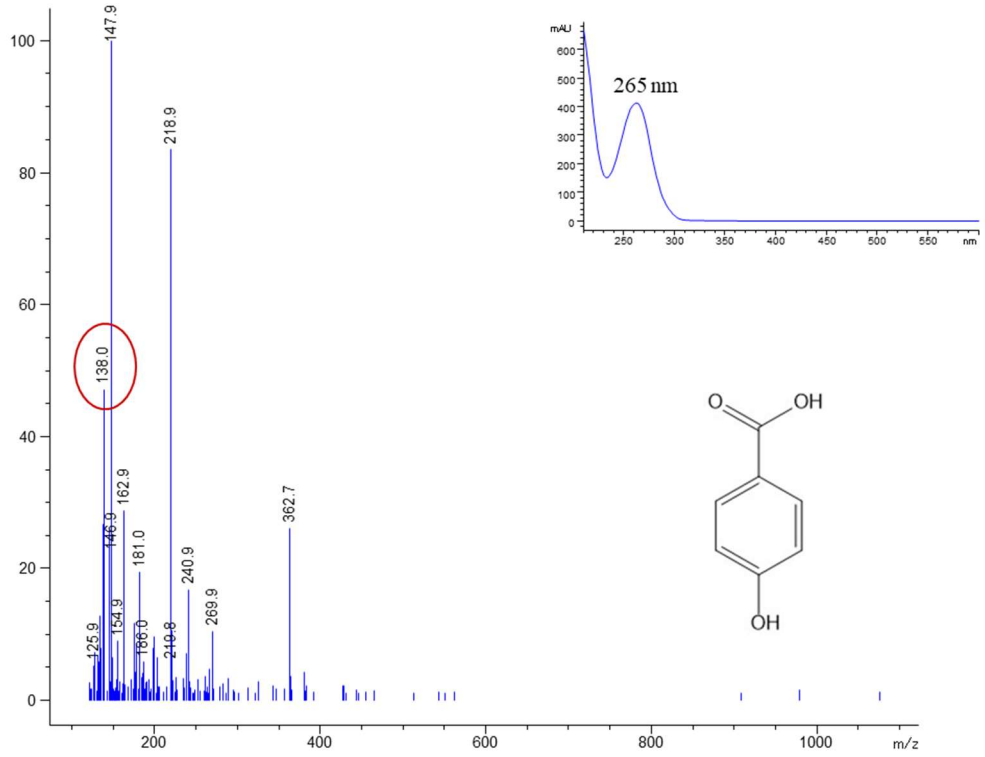
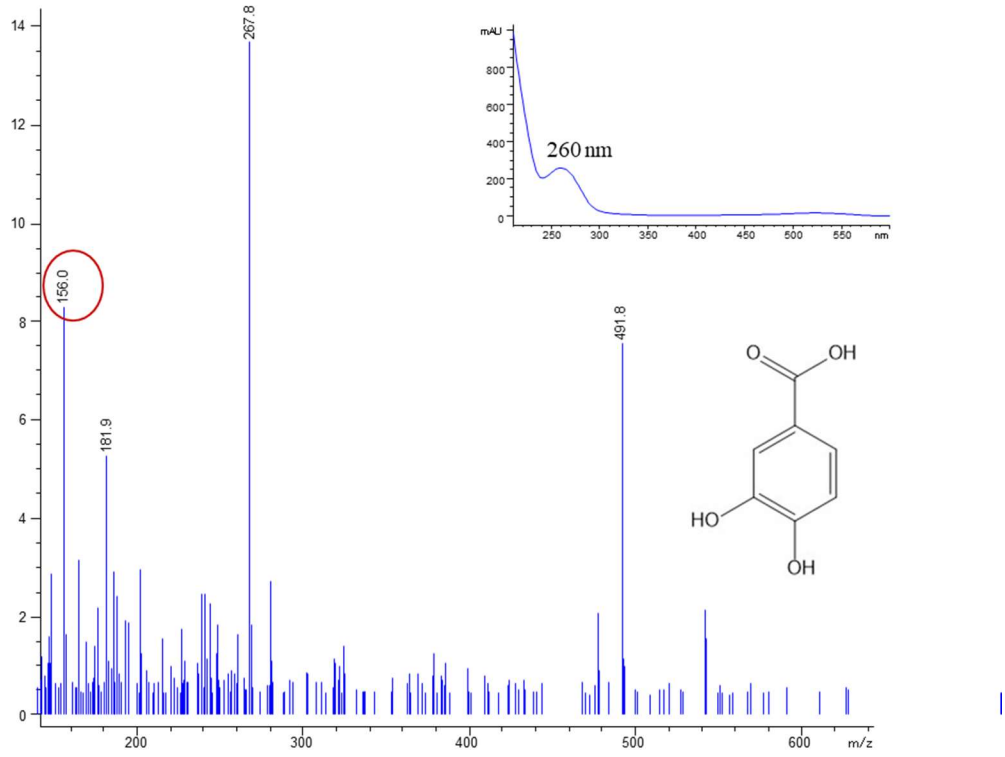
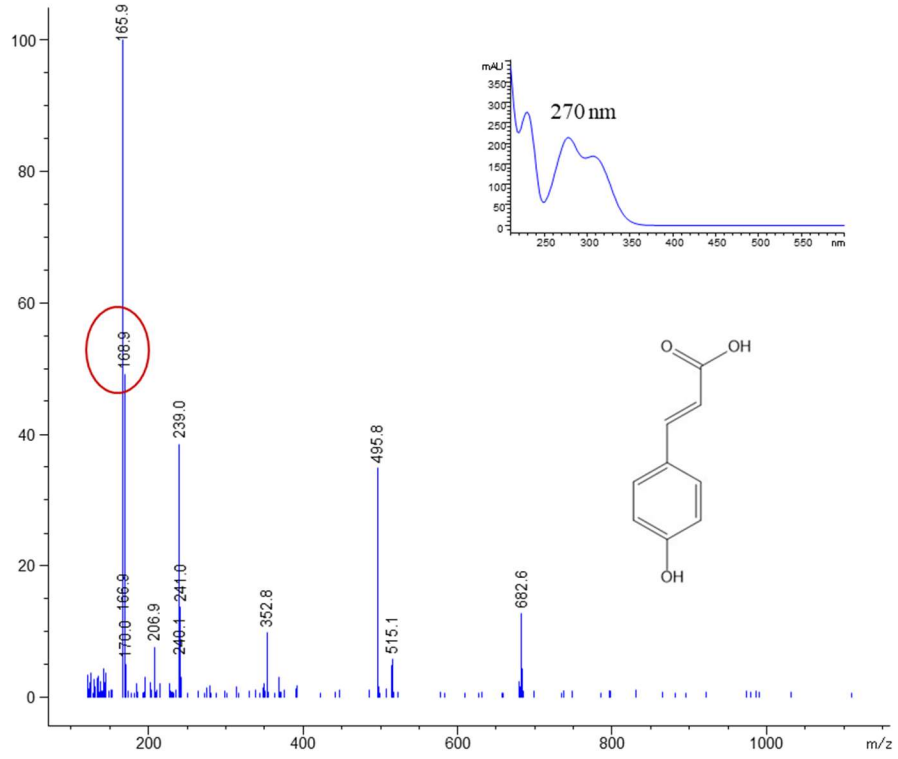


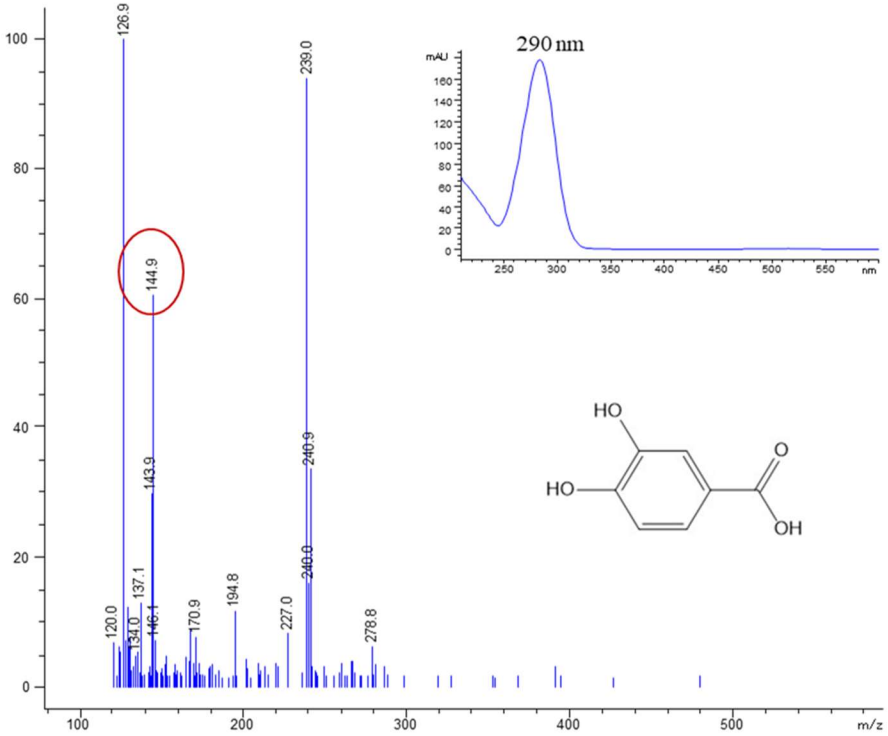
(a) peak 1
Hydroxybenzoic acid



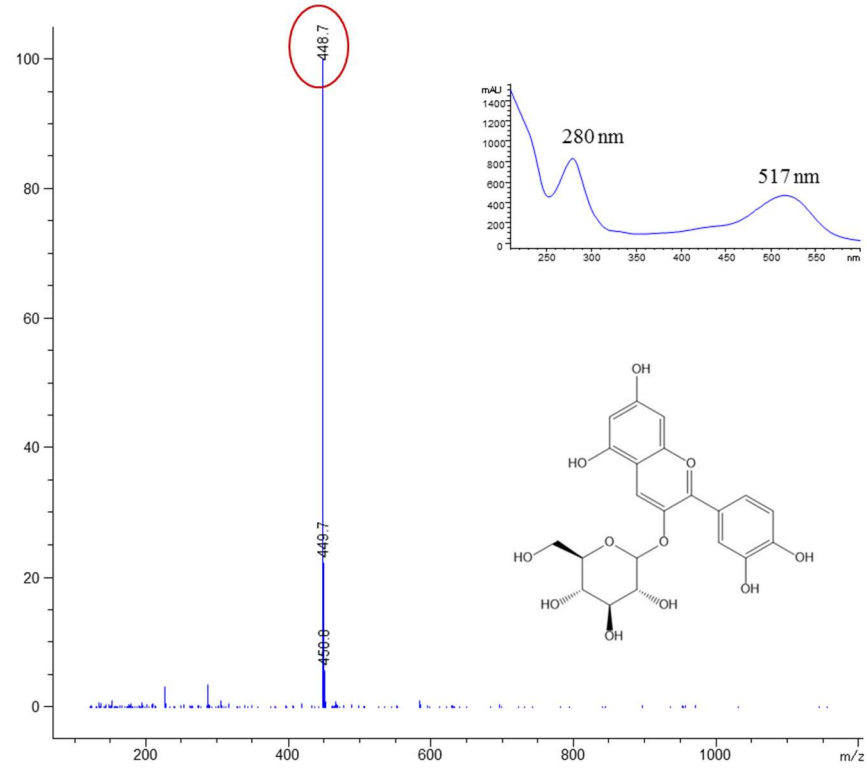
(b) peak 2
Dihydroxybenzoic acid



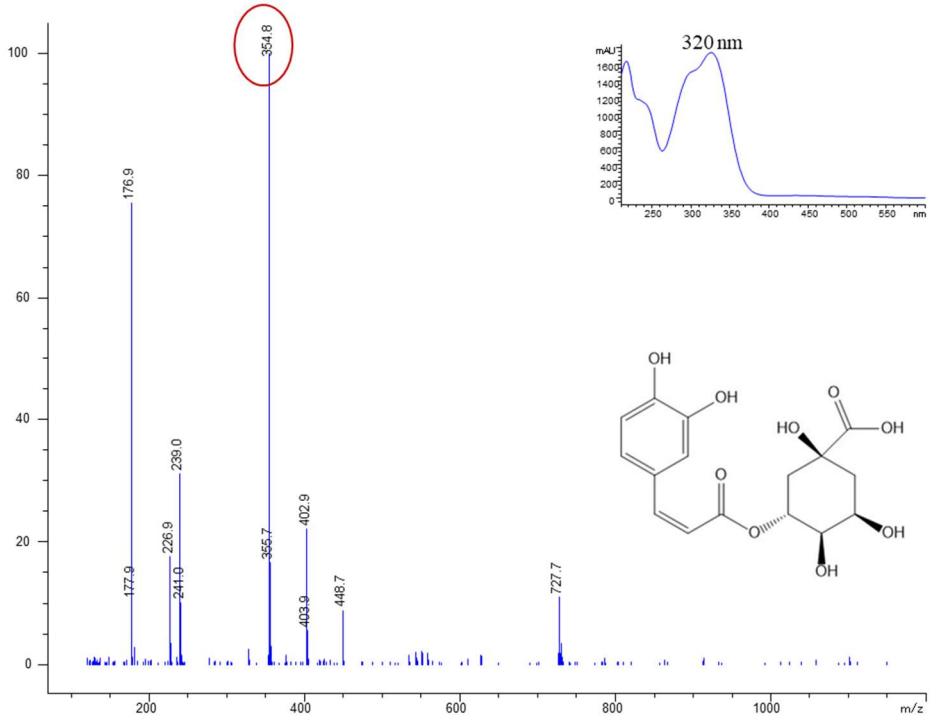
(c) peak 3
Dihydroxy p-coumaric acid



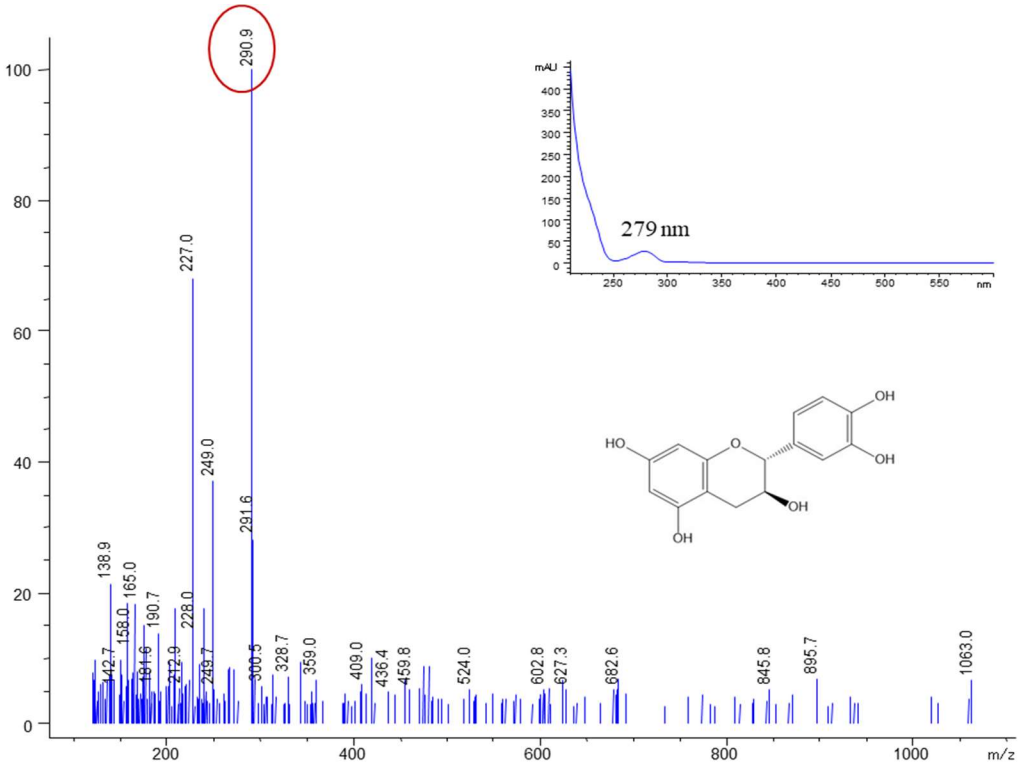
(d) peak 4
Protocatechuic acid



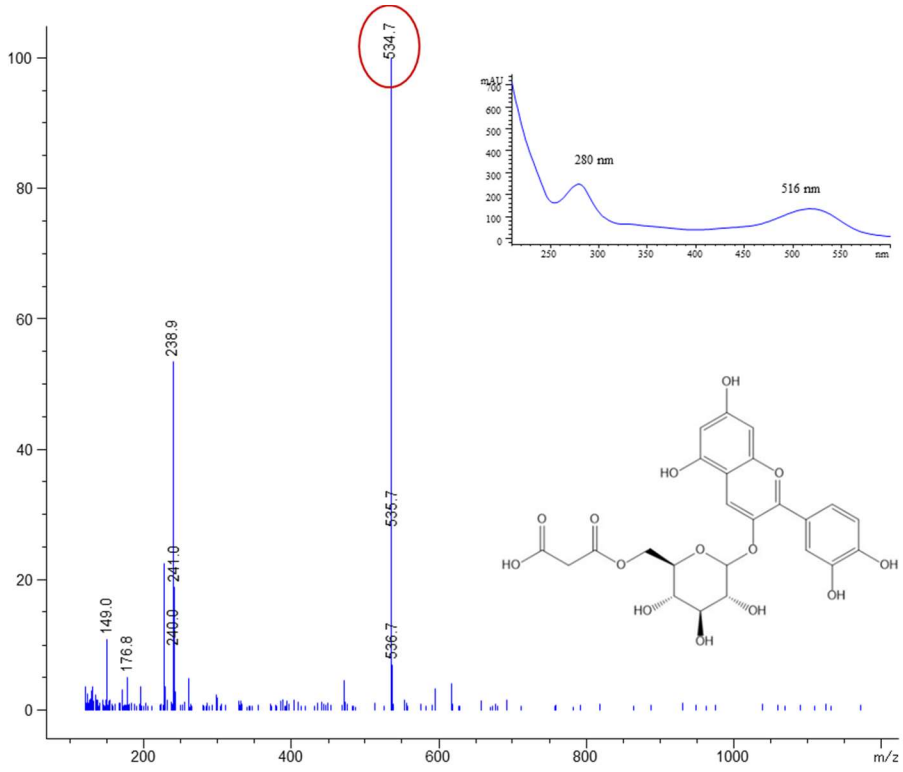
(e) peak 5
Cyanidin-3-O-glucoside



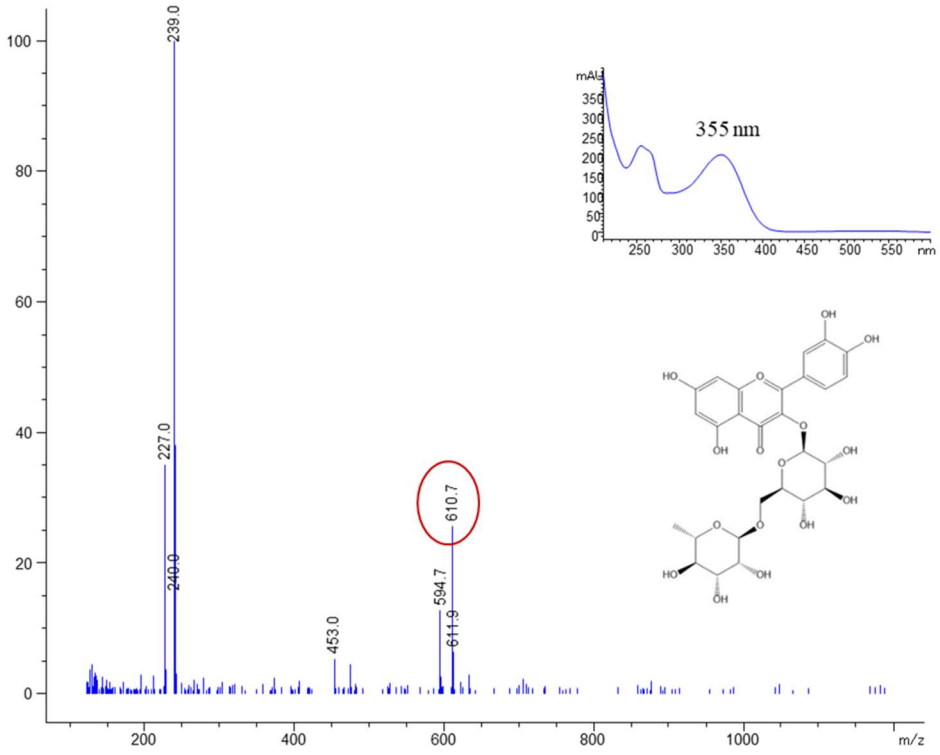
(f) peak 6
Chlorogenic acid



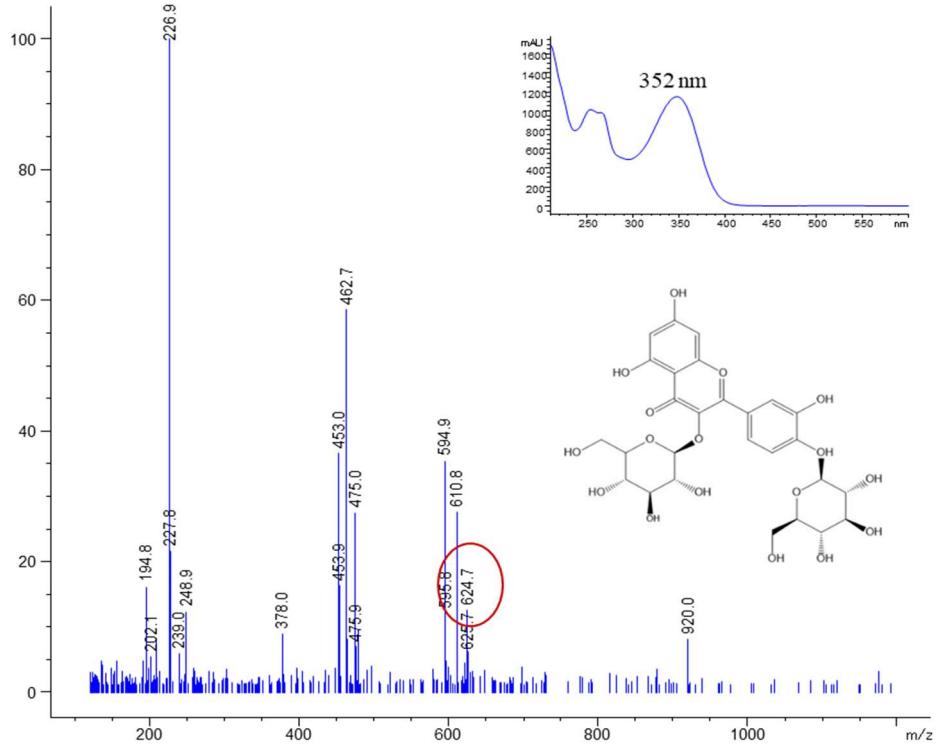
(g) peak 7
Catechin



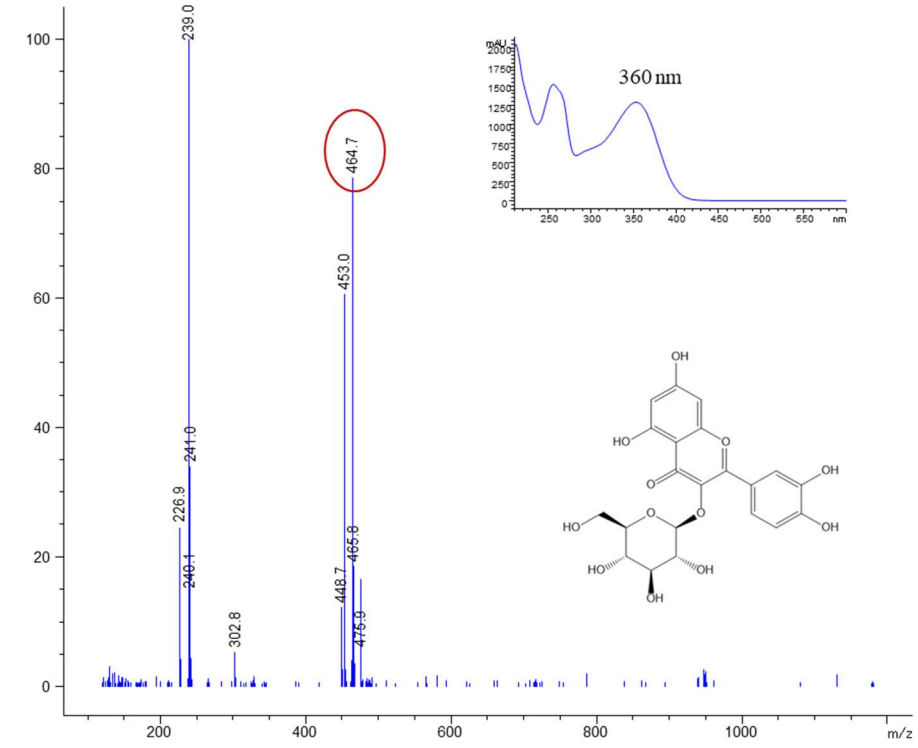
(h) peak 8
Cyanidin-3-*O*-(6″-malonyl-glucoside)



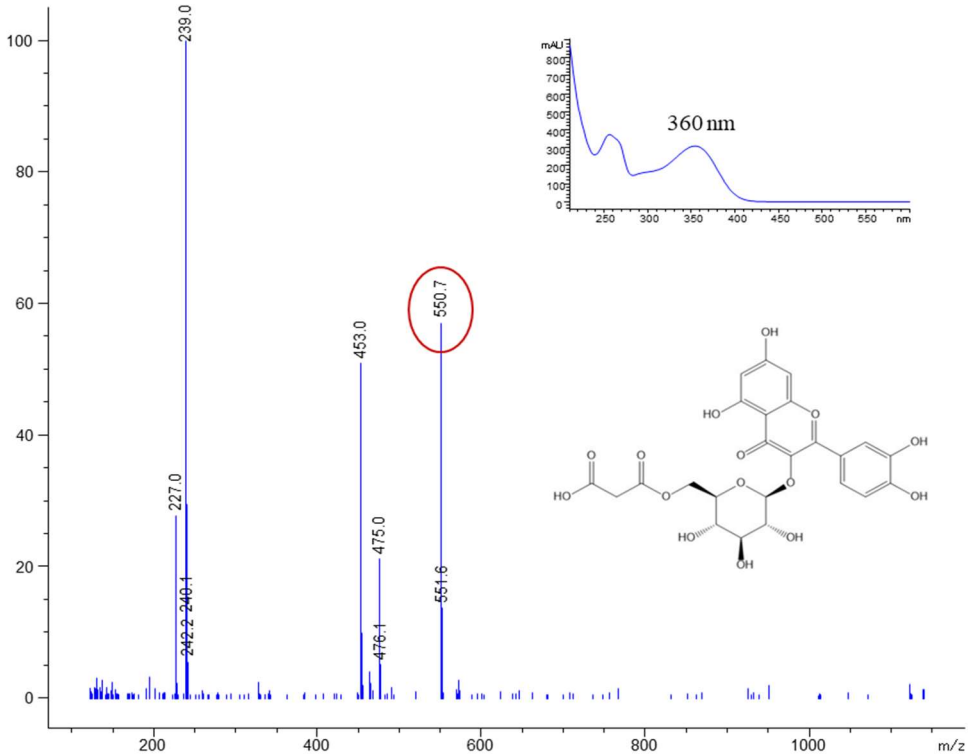
(i) peak 9
Quercetin-3-O-rutinoside (Rutin)



(j) peak 10
Quercetin-*3,4-O*-diglucoside

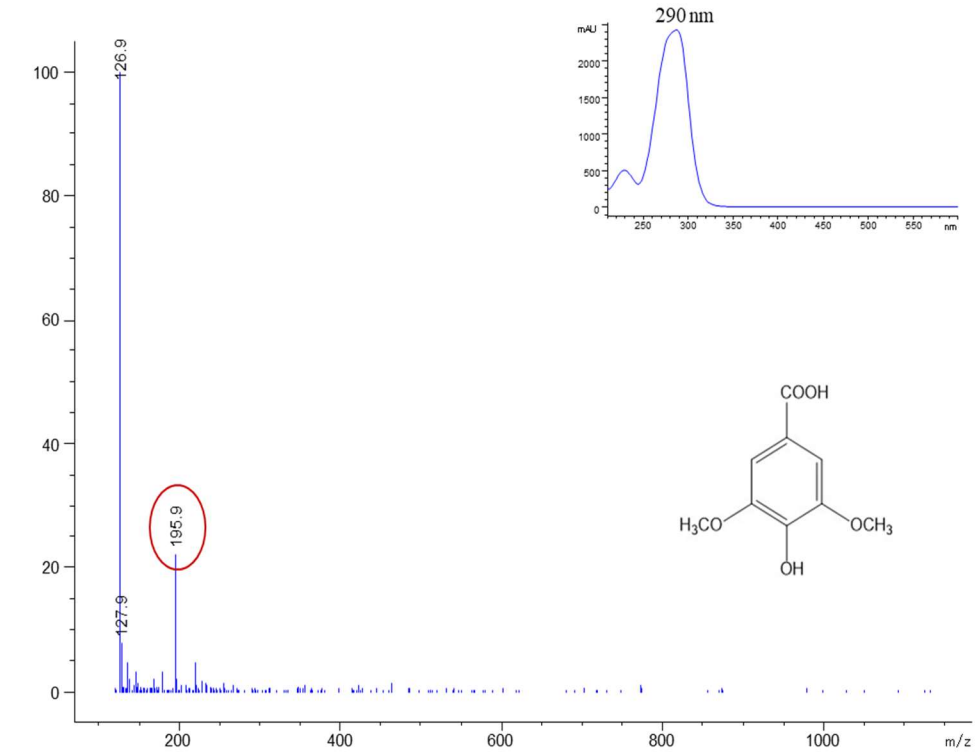


(k) peak 11 Quercetin-*3-O*-glucoside

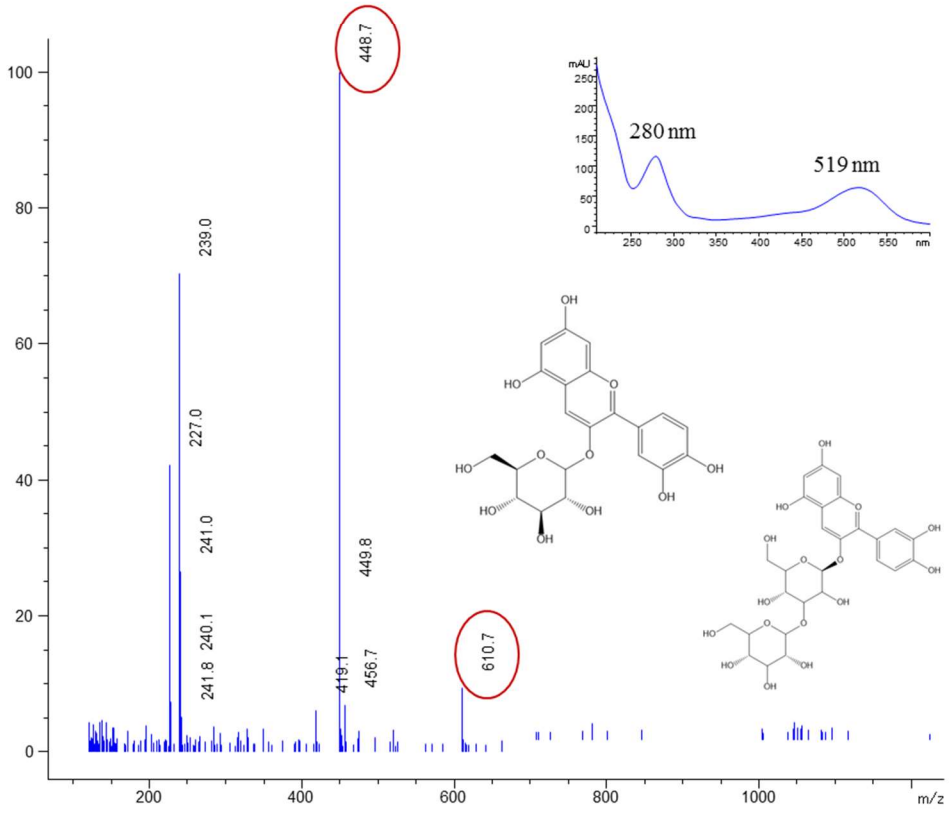


(l) peak 12 Quercetin-3-O-(6″-malonyl-glucoside)

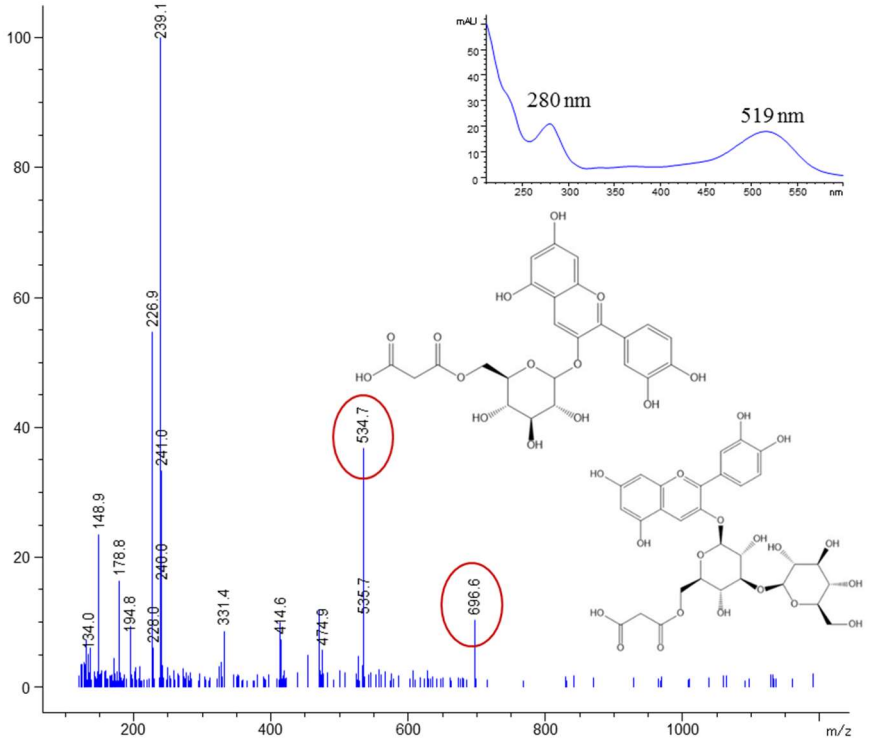
Figure 1. LC-MS; UV/vis scanning spectra; chemical structures of red chicory: (a) peak 1, (b) peak 2, (c) peak 3, (d) peak 4, (e) peak 5, (f) peak 6, (g) peak 7, (h) peak 8, (i) peak 9, (j) peak 10, (k) peak 11, (l) peak 12.



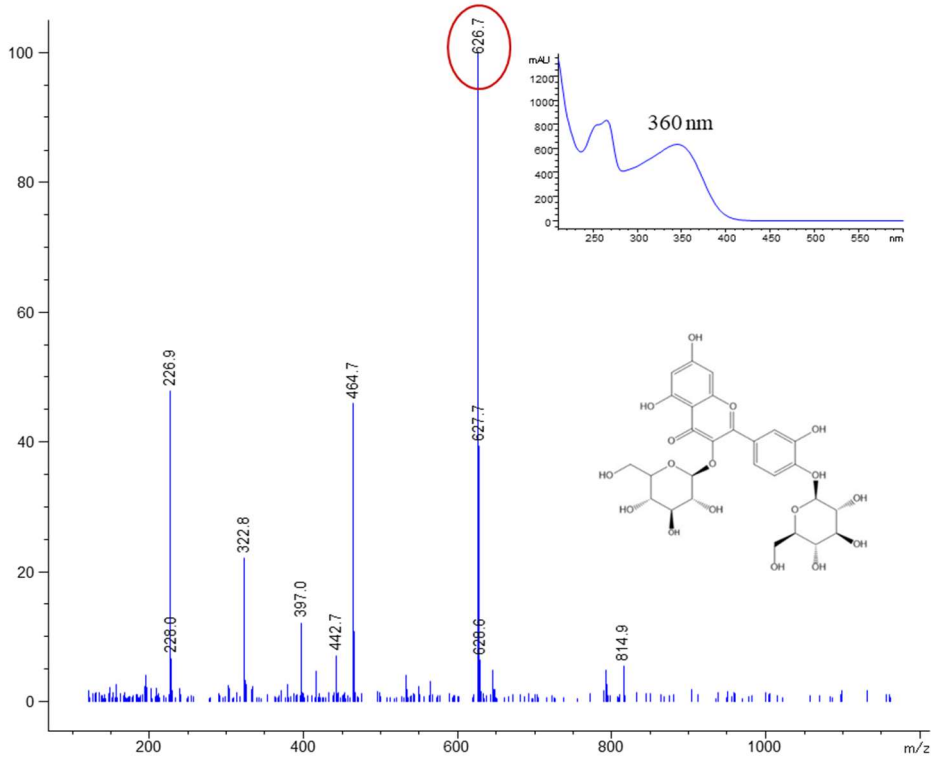
(a) peak 1
Syringic acid



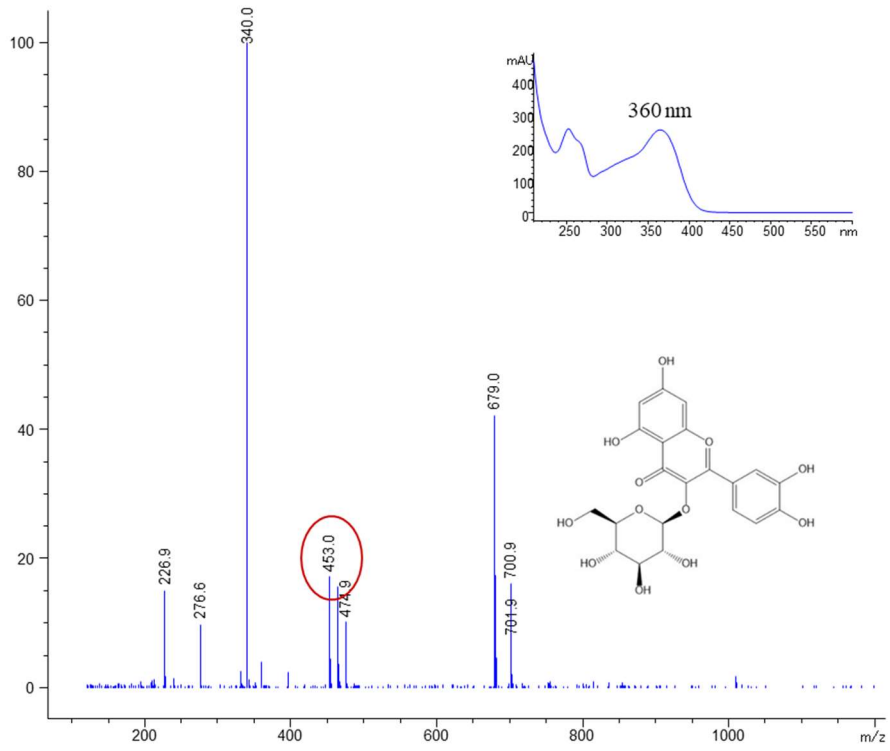
(b) peak 2
Cyanidin-*3*-*O*-glucoside +
Cyanidin-*3*-*O*-laminaribioside



(c) peak 3 Cyanidin-3-(6″-malonyl-glucoside) + Cyanidin-3-(6″-malonyl-laminaribioside)

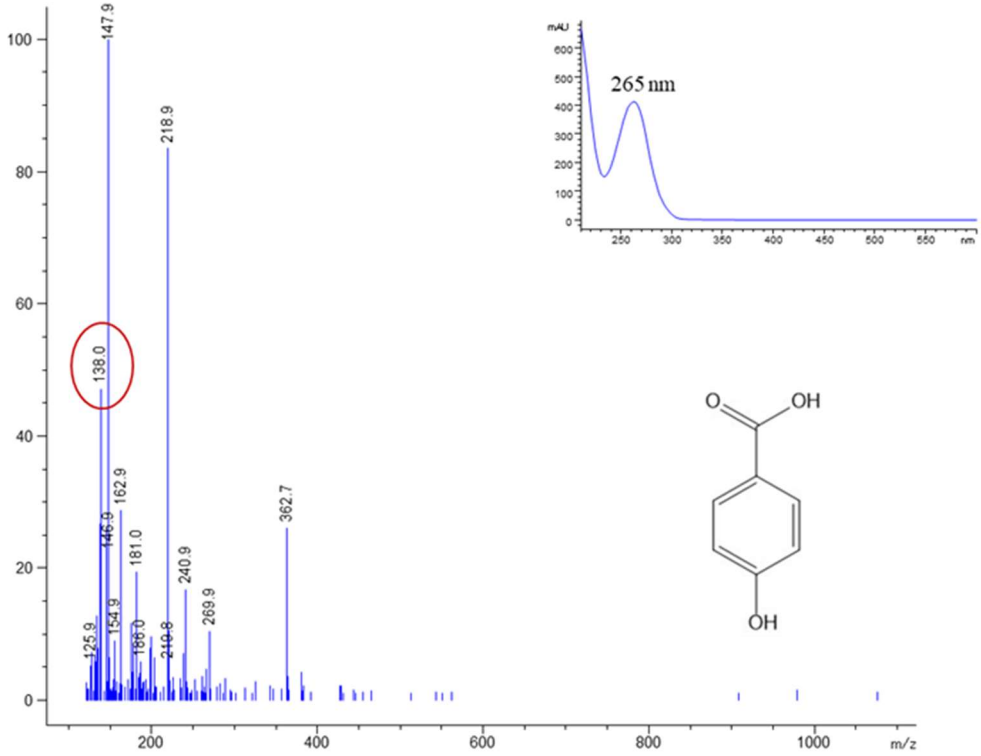


(d) peak 4 Quercetin-*3,4-O*-diglucoside

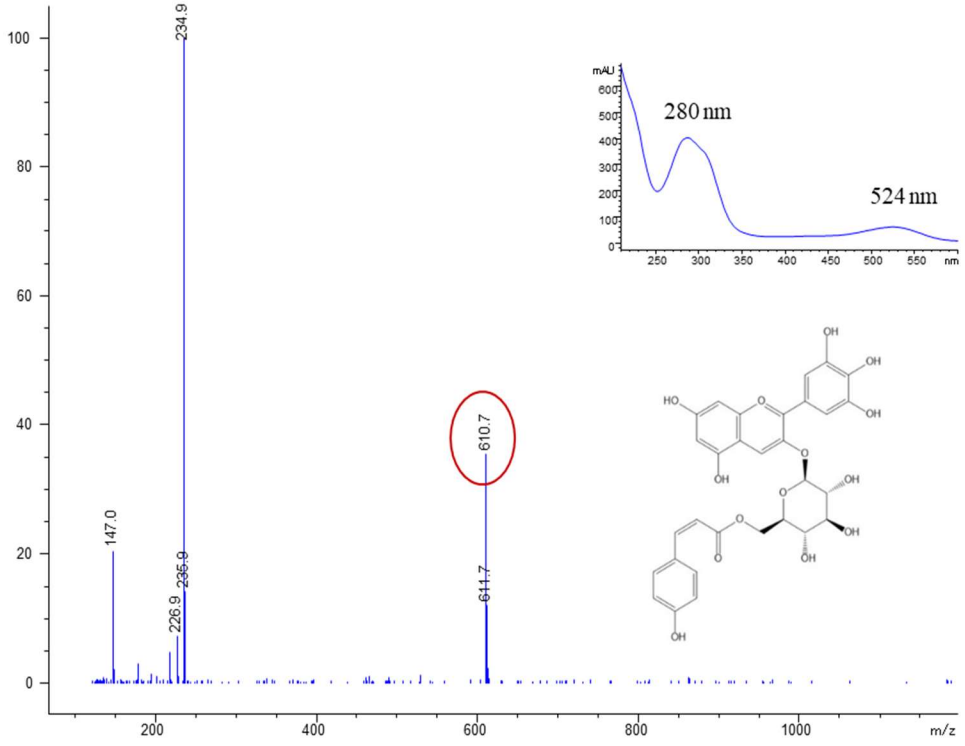


(e) peak 5
Quercetin-*3*-*O*-glucoside

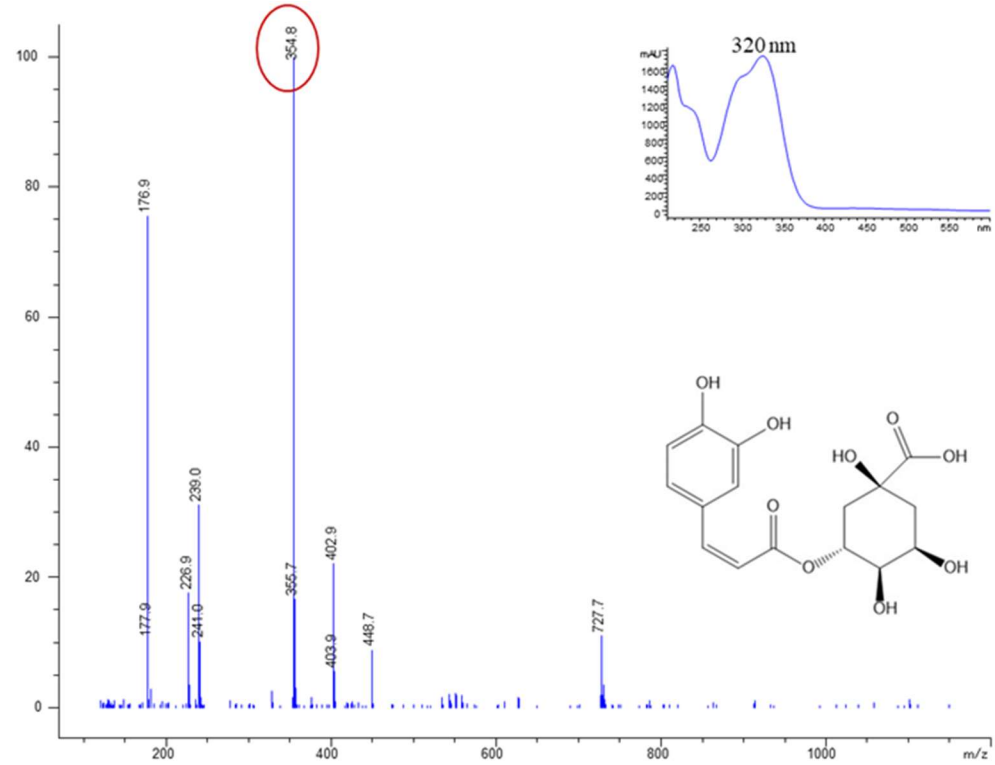
Figure 2. LC-MS; UV/VIS scanning spectra; chemical structures of red onion: (a) peak 1, (b) peak 2, (c) peak 3 (d) peak 4, (e) peak 5



(a) peak 1
Hydroxybenzoic acid

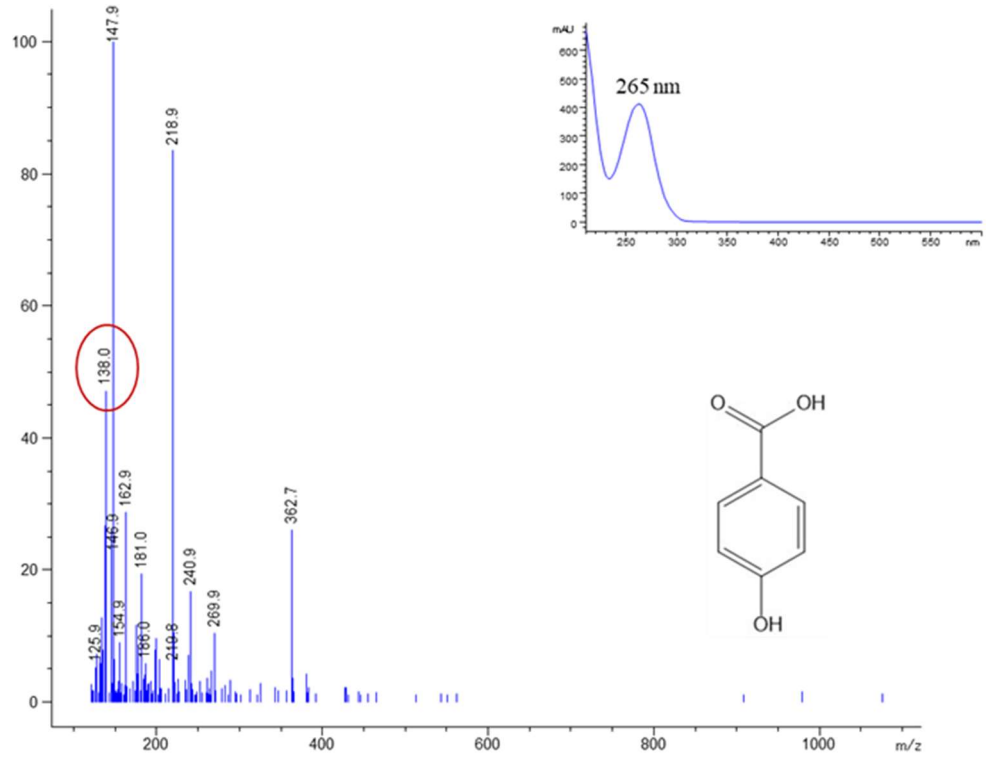


(b) peak 2
Delphinidin-3-*O*-rutinoside)



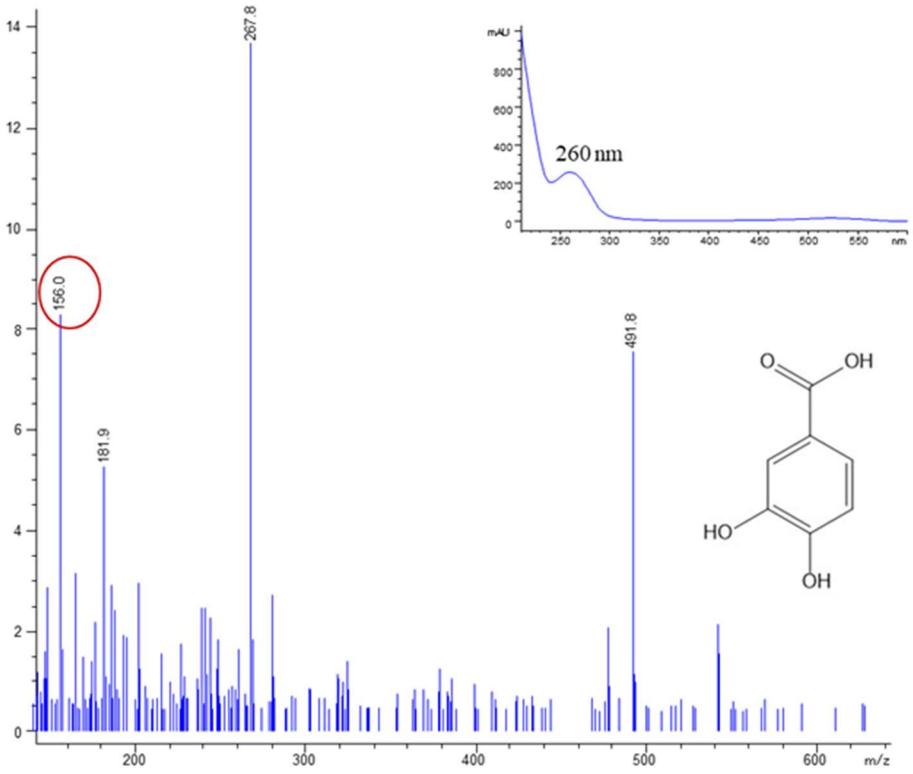
(c) peak 3
5-Caffeoylquinic acid
(Chlorogenic acid)

Figure 3. LC-MS; UV/vis scanning spectra; chemical structures of eggplant: (a) peak 1, (b) peak 2, (c) peak 3.



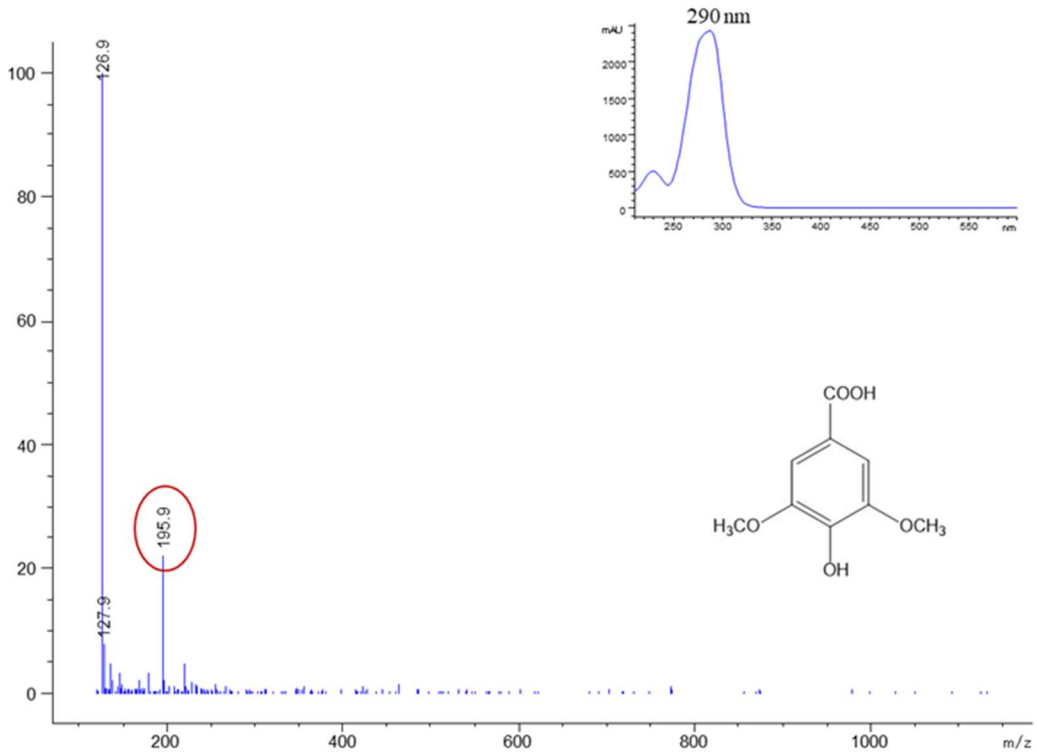
(a) peak 1

Hydroxybenzoic acid

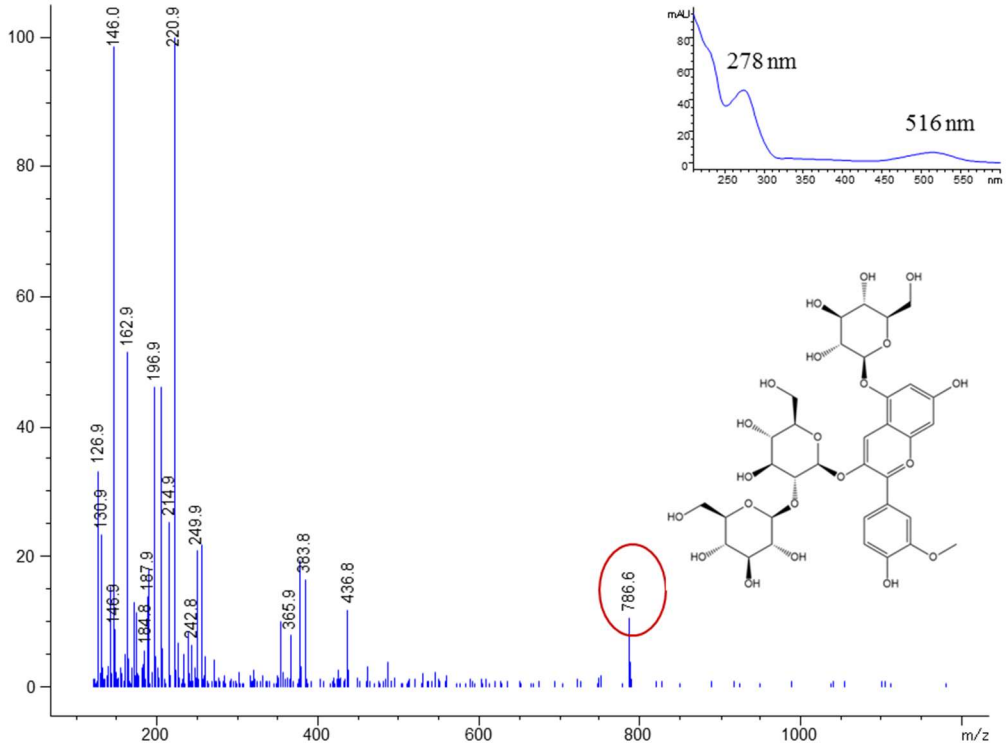


(b) peak 2

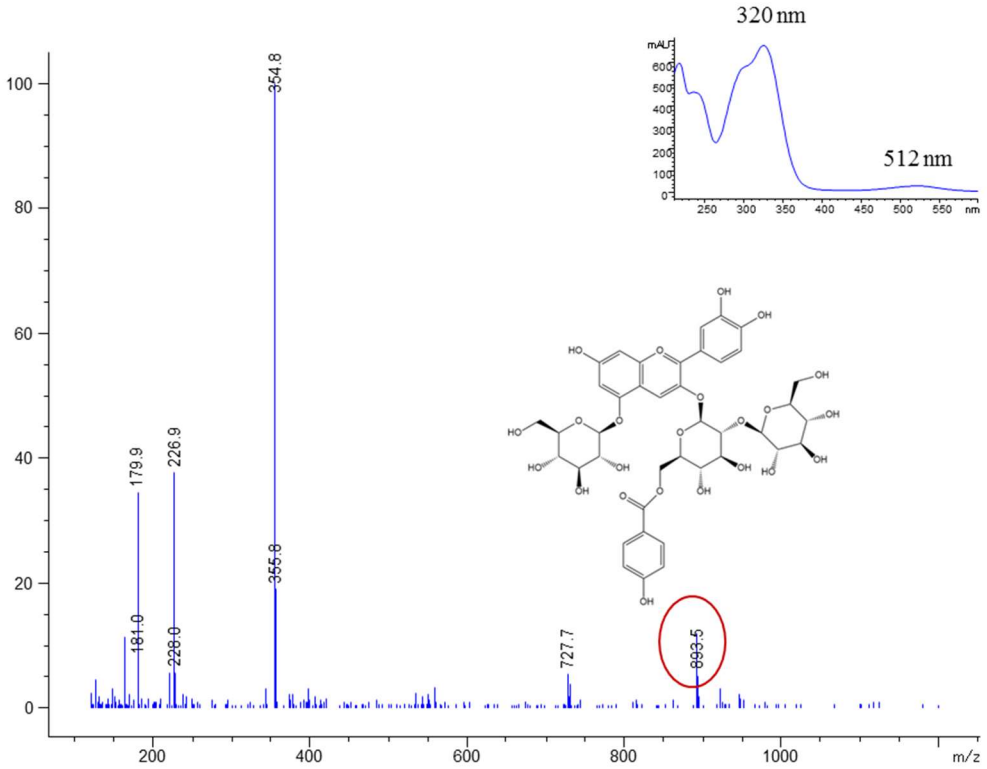
Dihydroxybenzoic acid



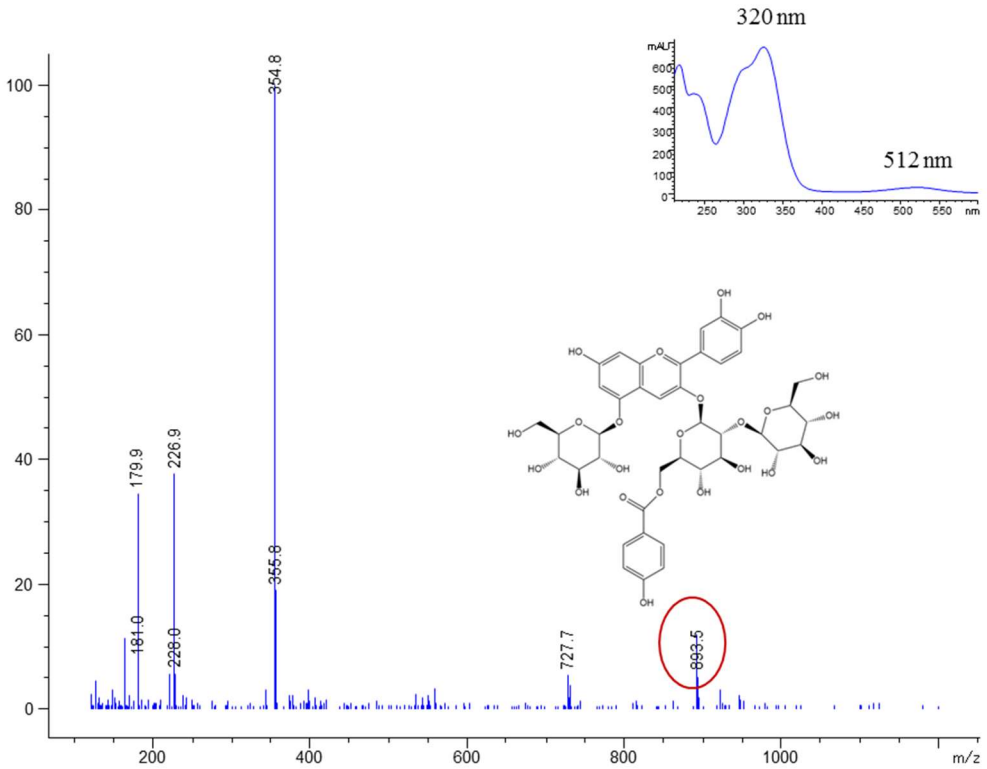
(c) peak 3
Syringic acid



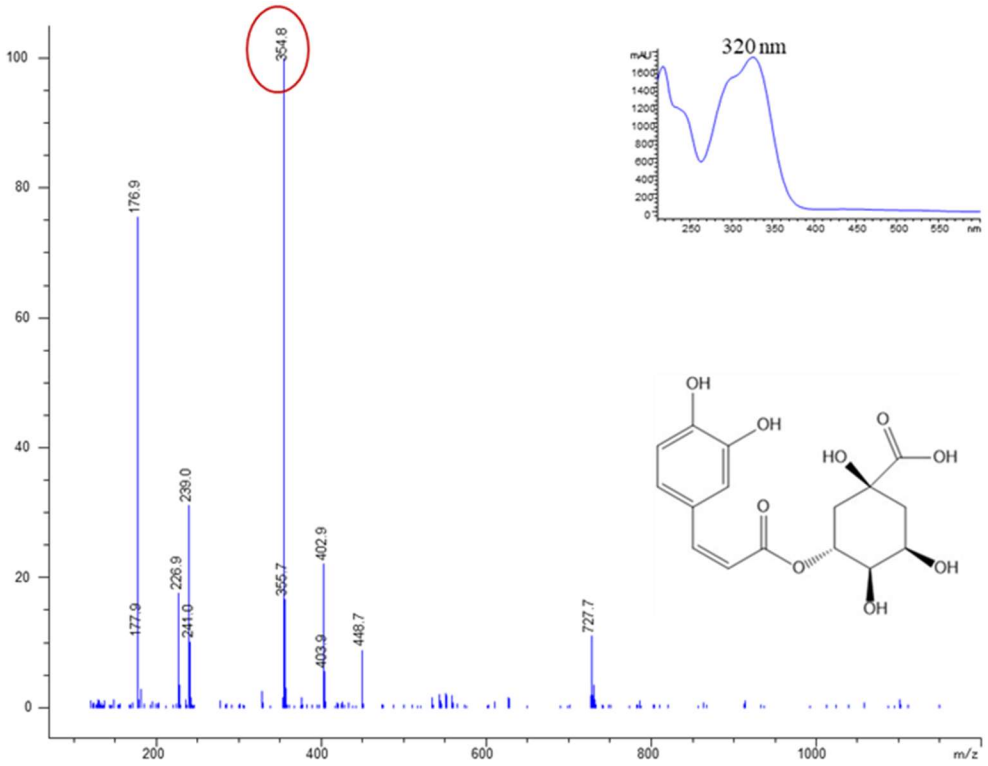
(d) peak 4
Peonidin-*3*-*O*-sophoroside-*5*-*O*-glucoside



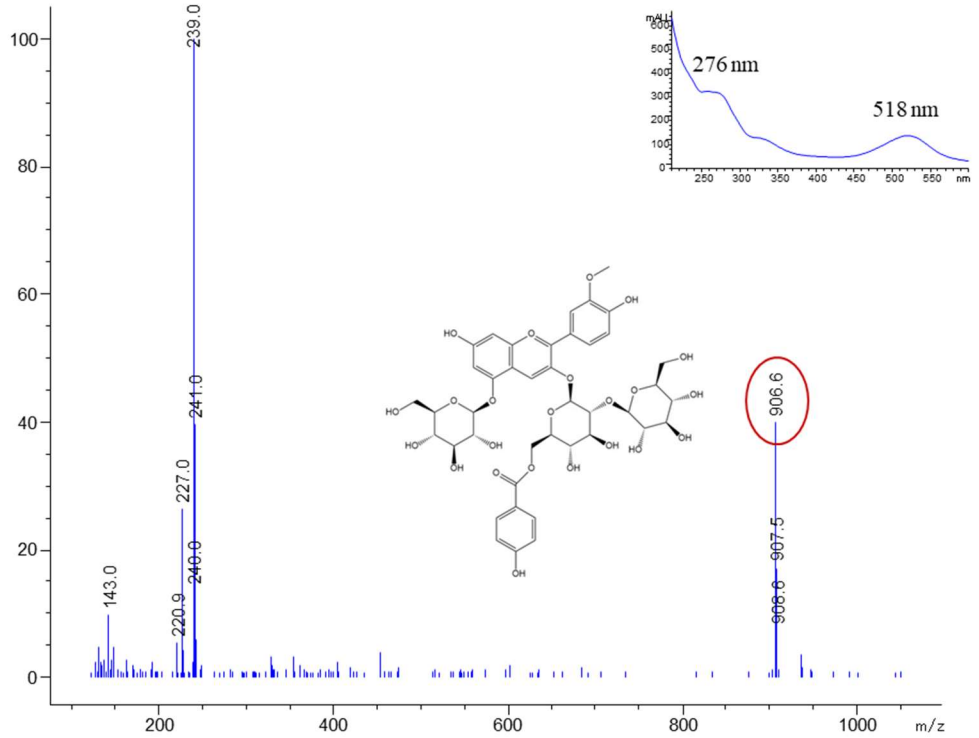
(e) peak 5
Peonidin-3-*O*-glucoside



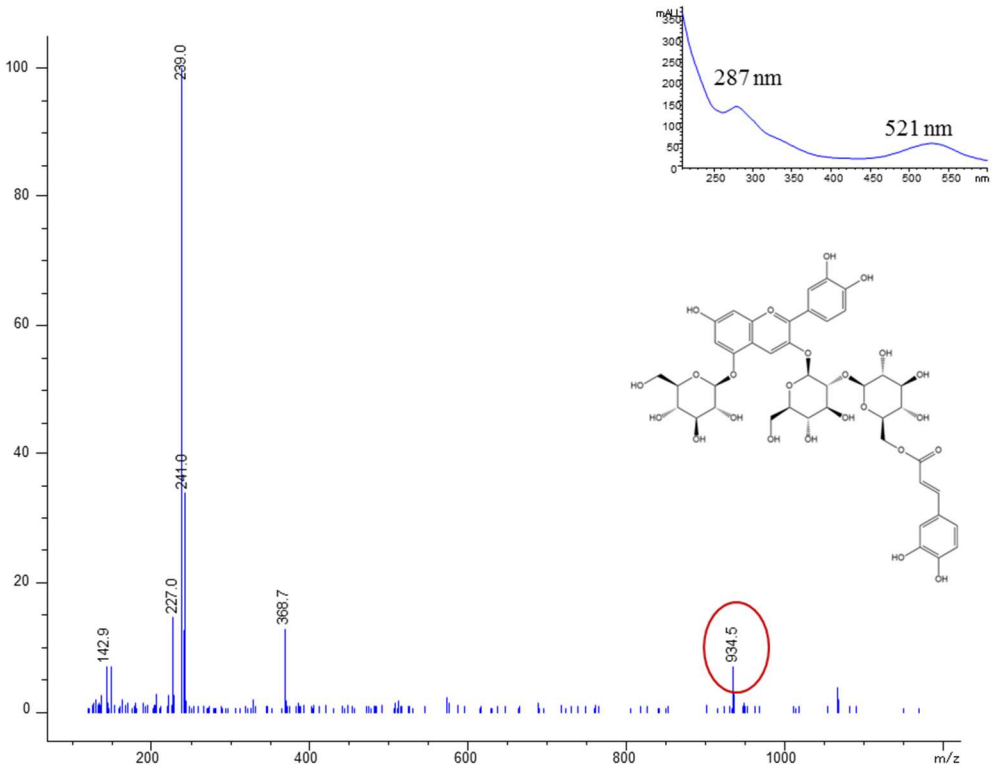
(f) peak 6
Cyanidin-3-p-hydroxybenzoyl sophoroside-5-glucoside



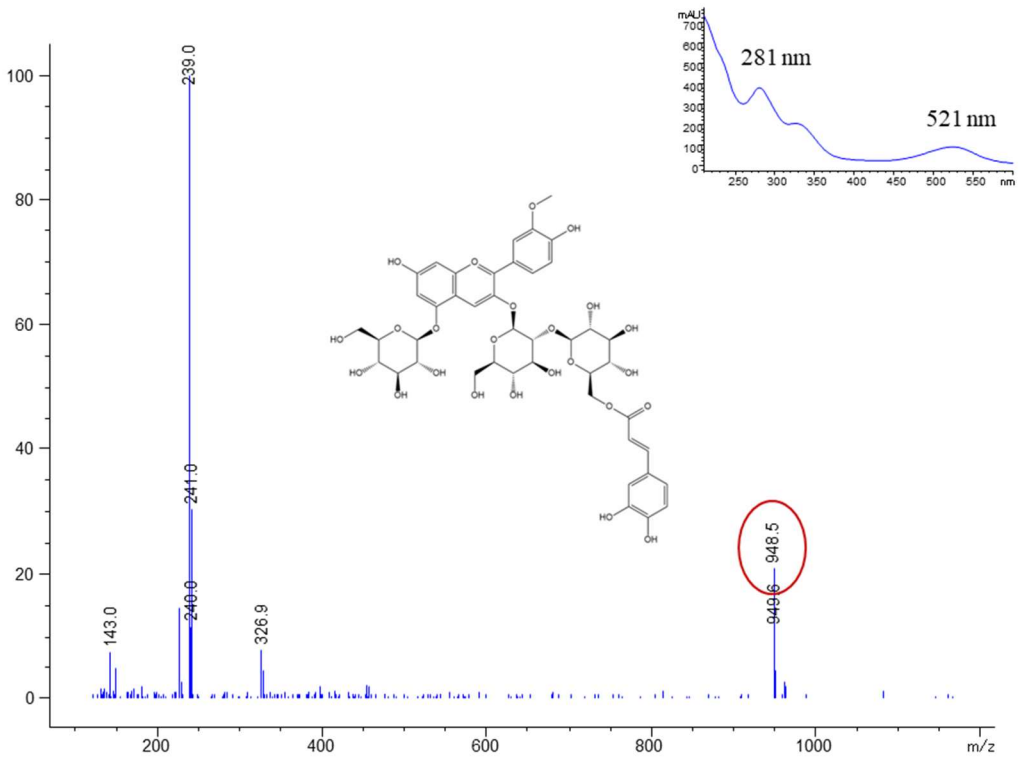
(g) peak 7
Chlorogenic acid



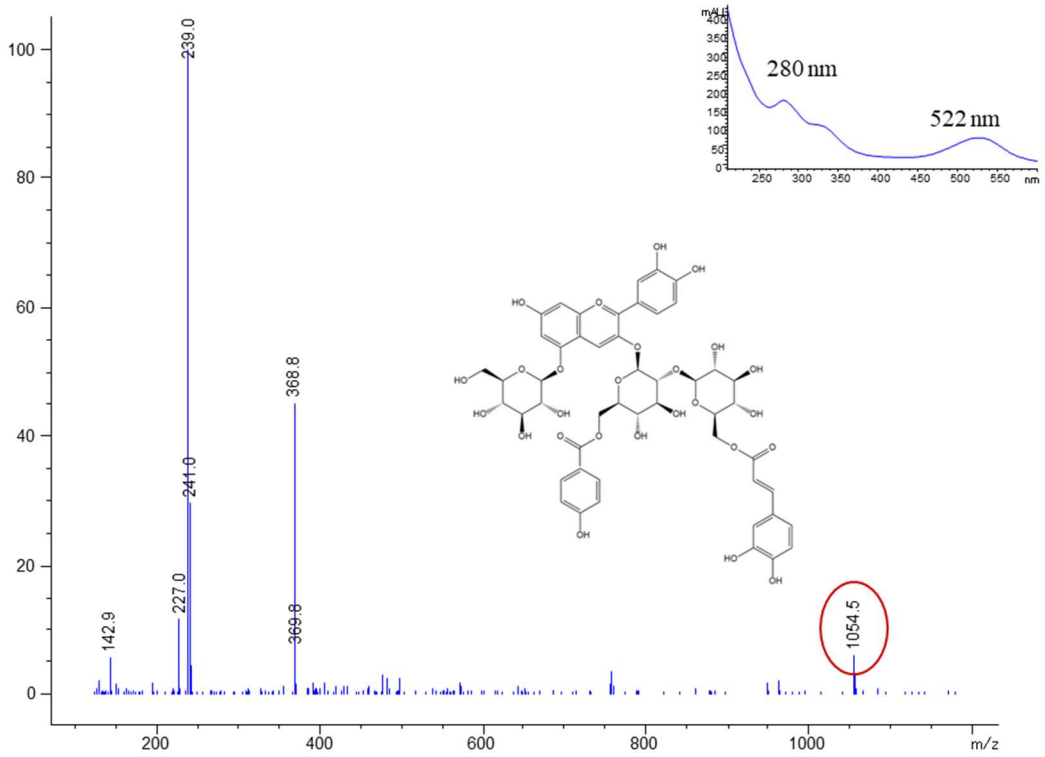
(h) peak 8
Peonidin-3-p-hydroxybenzoyl sophoroside-5-glucoside



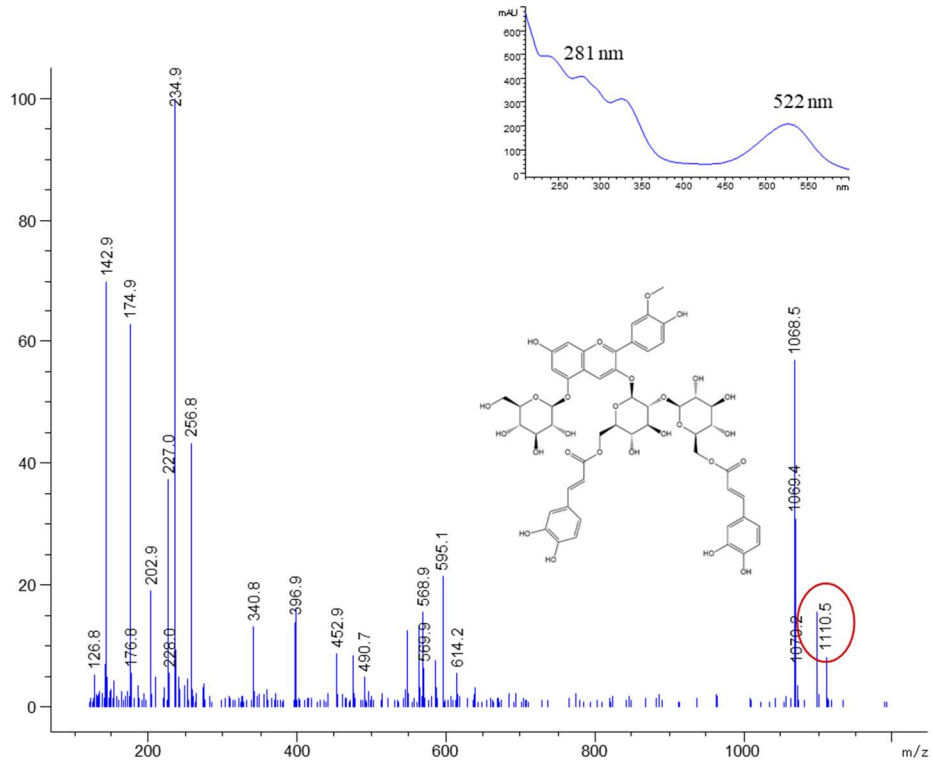
(i) peak 9
Cyanidin-3-caffeoylsophoroside-5-glucoside



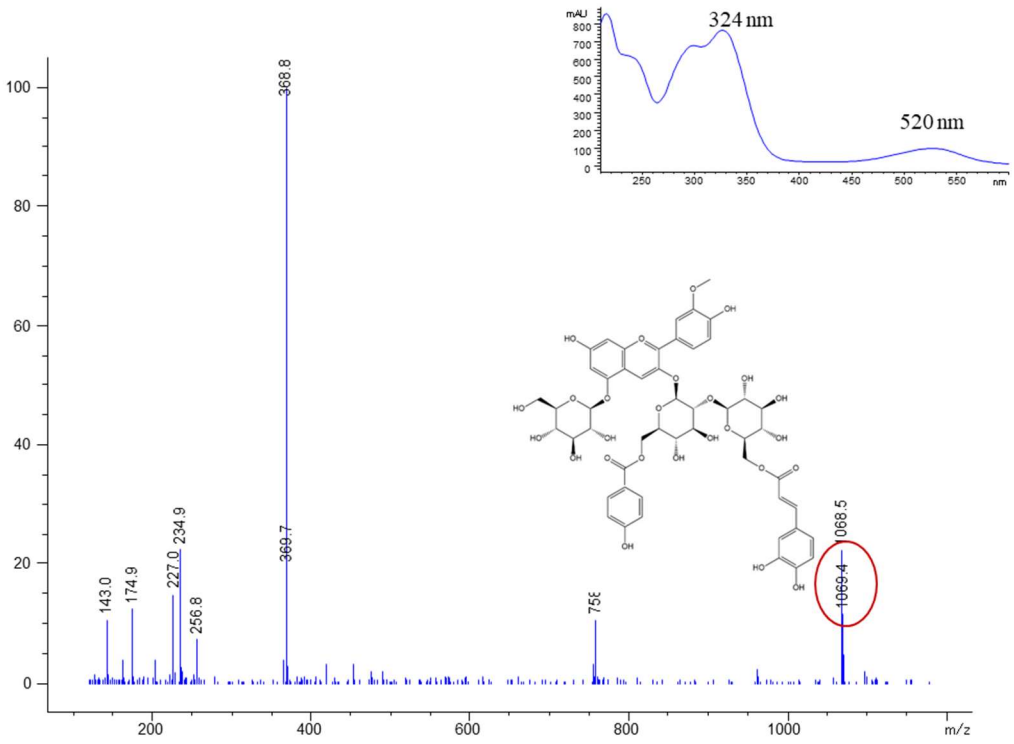
(j) peak 10
Peonidin-3-caffeoylsophoroside-5-glucoside



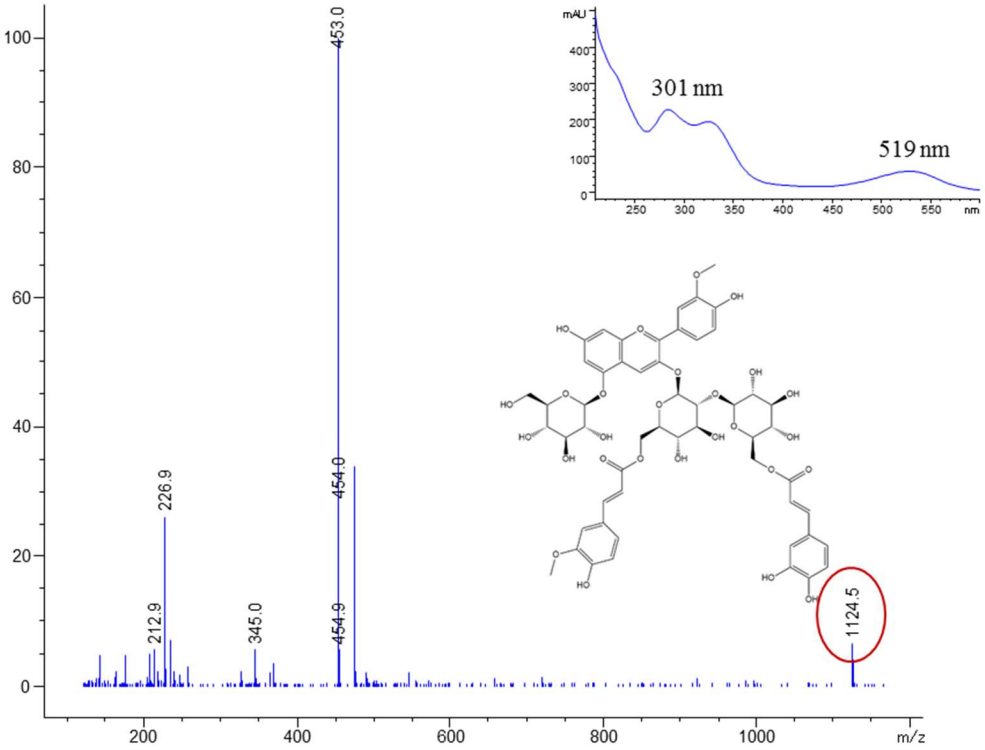
(k) peak 11 Cyanidin-3-caffeoyl-p-hydroxybenzoyl sophoroside-5-glucoside



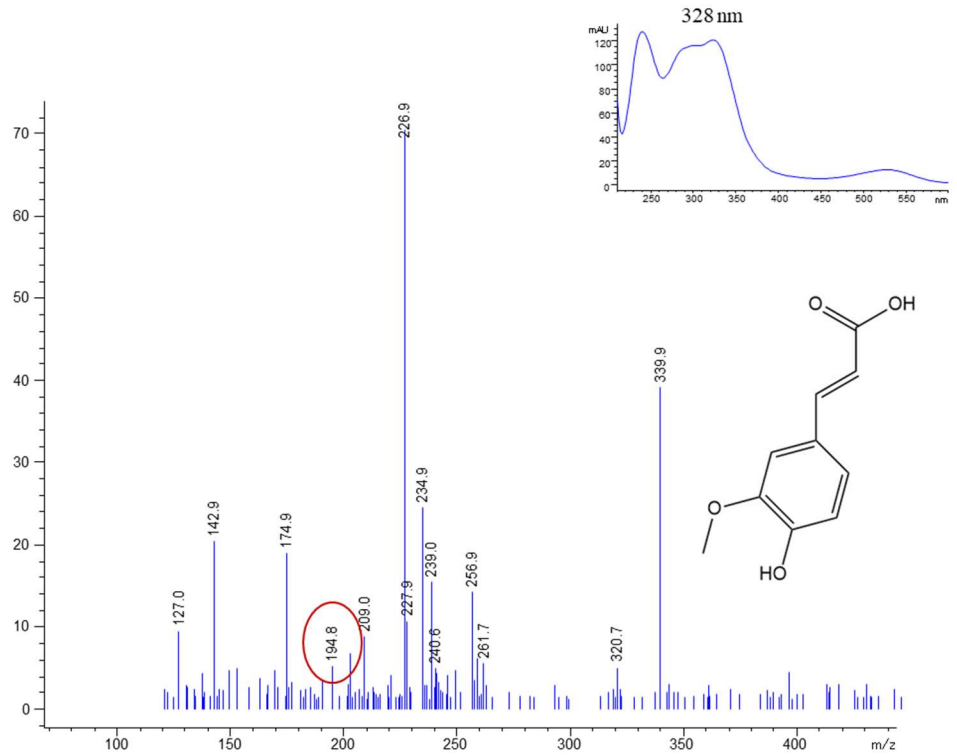
(l) peak 12 Peonidin-3-dicaffeoylsophoroside-5-glucoside



(m) peak 12 Peonidin-3-caffeoyl-p-hydroxybenzoyl sophoroside-5-glucoside

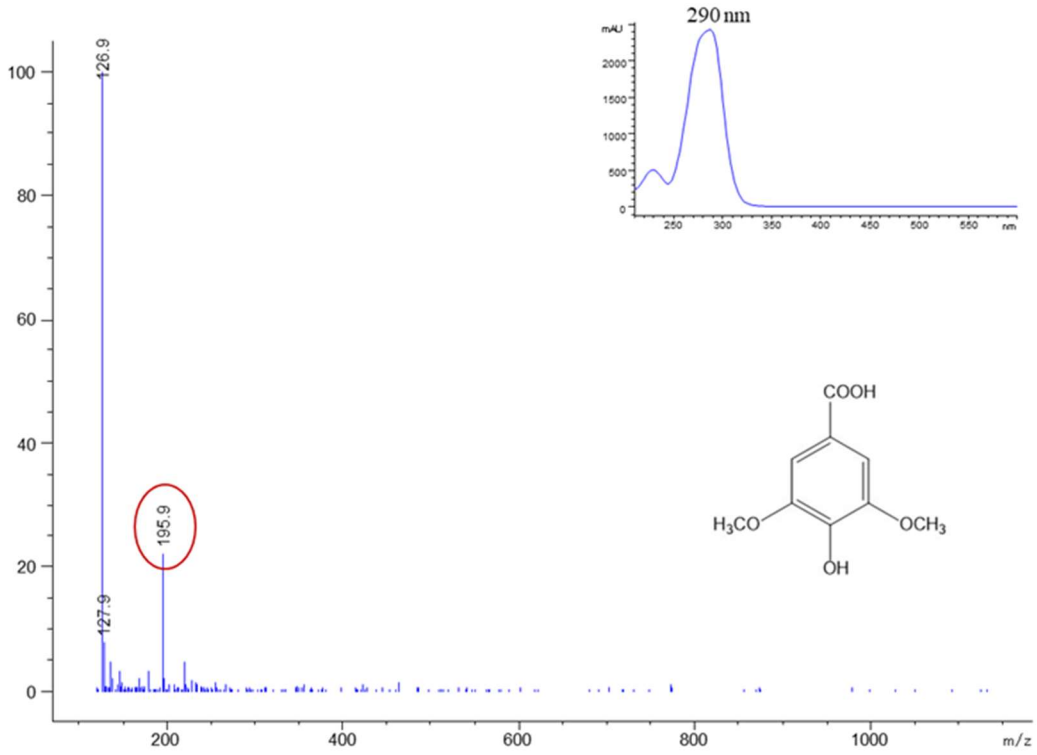


(n) peak 13 Peonidin-3-caffeoy-feruloylsophoroside-5-glucoside

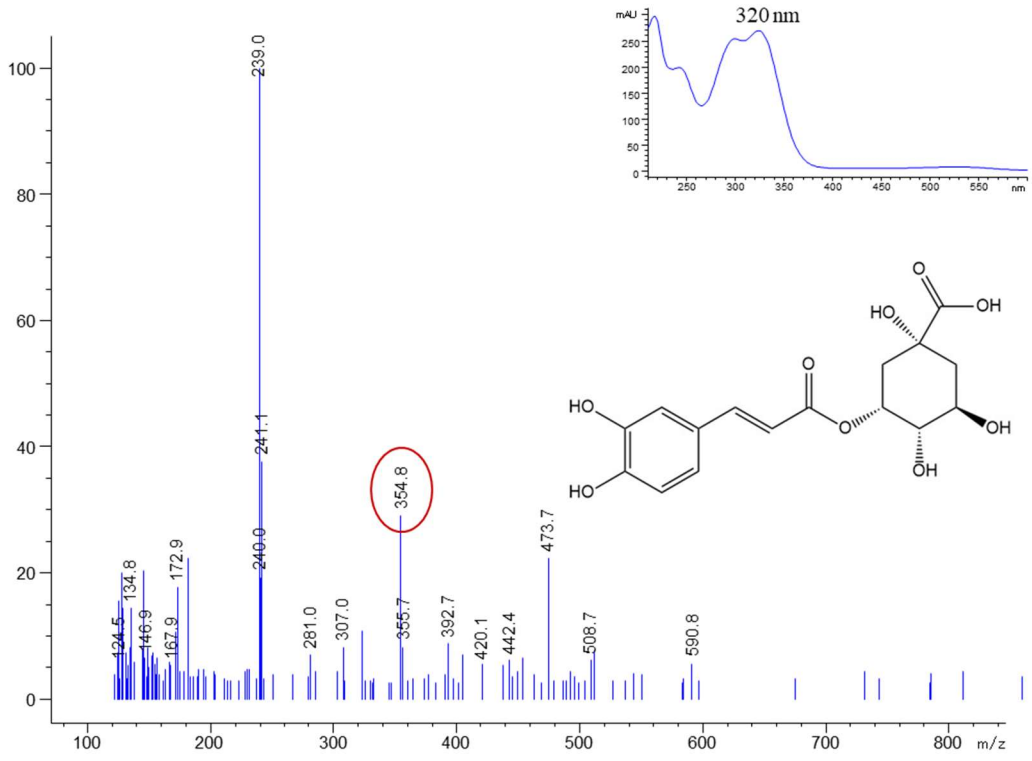


(o) peak 14
Ferulic acid

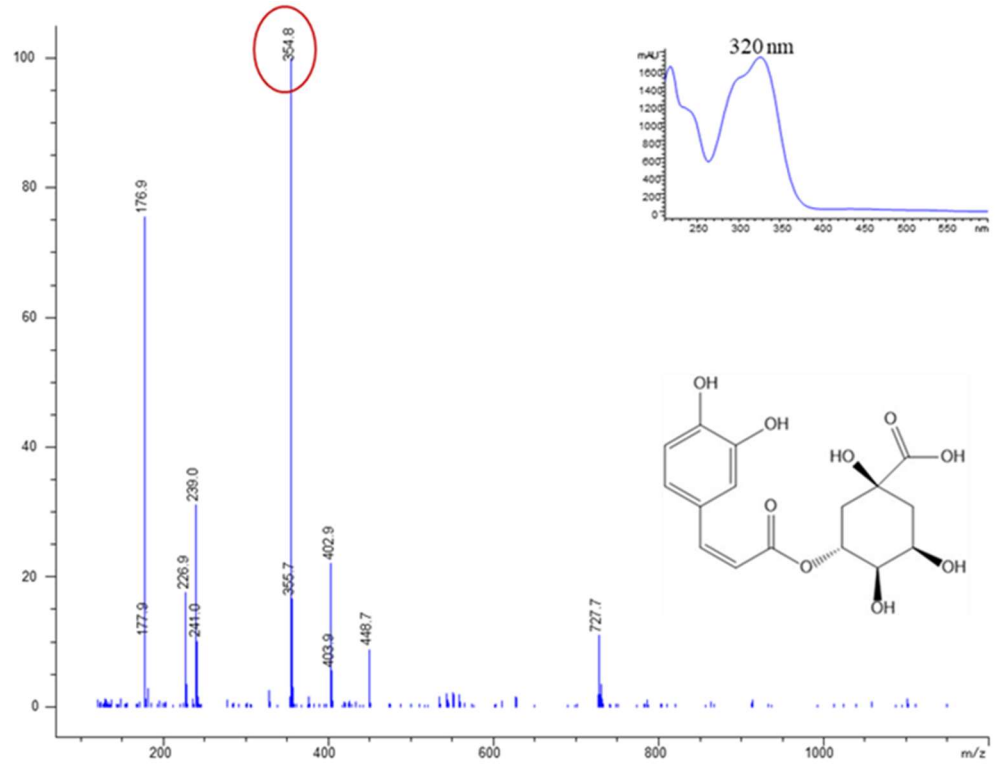
Figure 4. LC-MS; UV/vis scanning spectra; chemical structures of purple sweet potato: (a) peak 1, (b) peak 2, (c) peak 3, (d) peak 4, (e) peak 5, (f) peak 6, (g) peak 7, (h) peak 8, (i) peak 9, (j) peak 10, (k) peak 11, (l) peak 12, (m) peak 12, (n) peak 13,(o) peak 14.



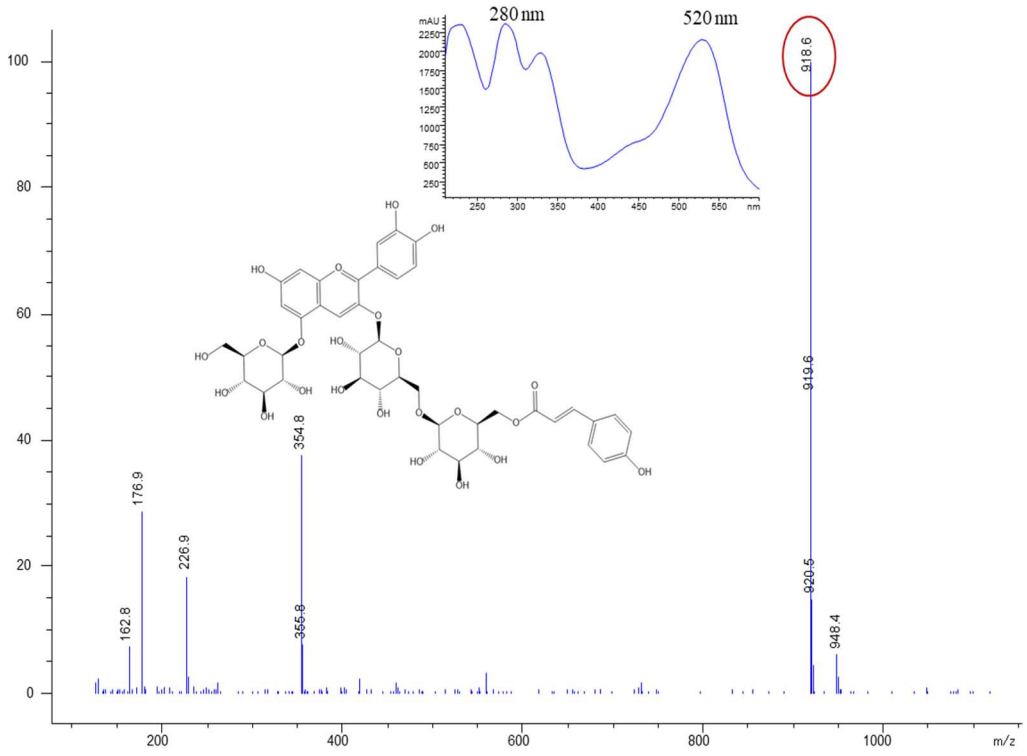
(a) peak 1
Syringic acid



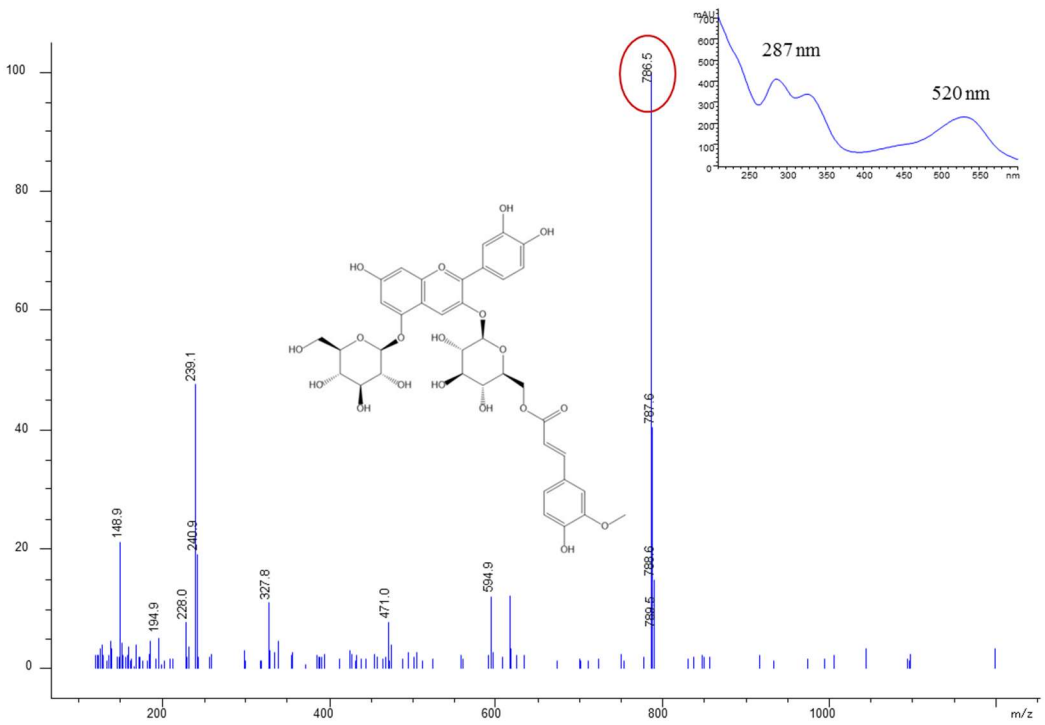
(b) peak 2
3-Caffeoylquinic acid
(Neochlorogenic acid)



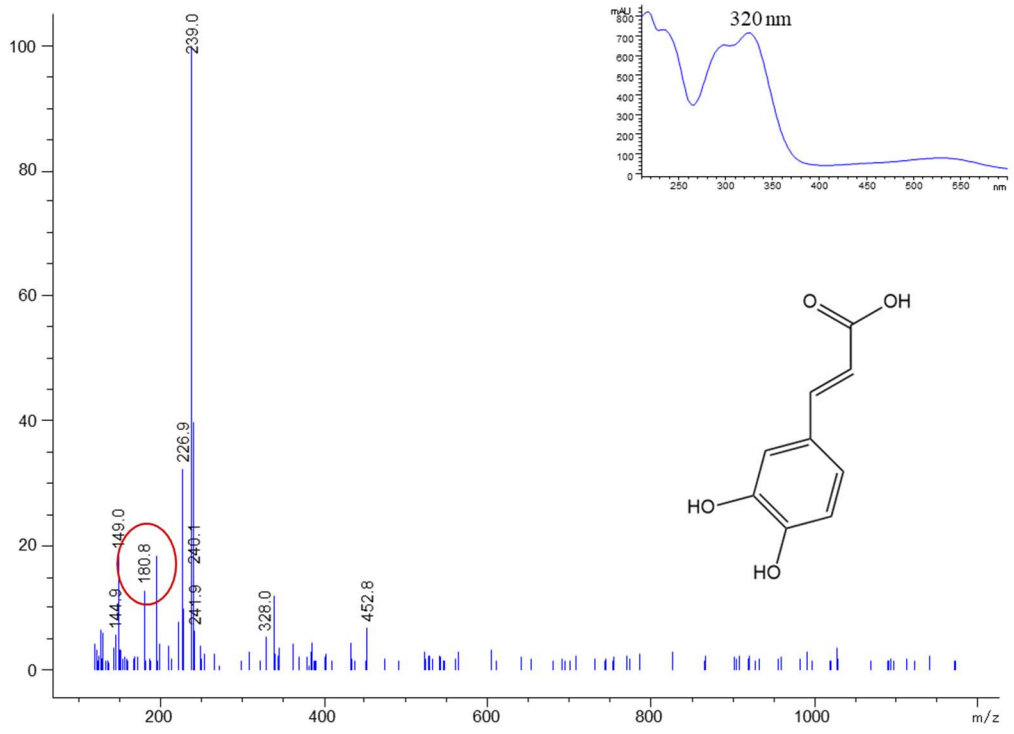
(c) peak 3 5-Caffeoylquinic acid (Chlorogenic acid)



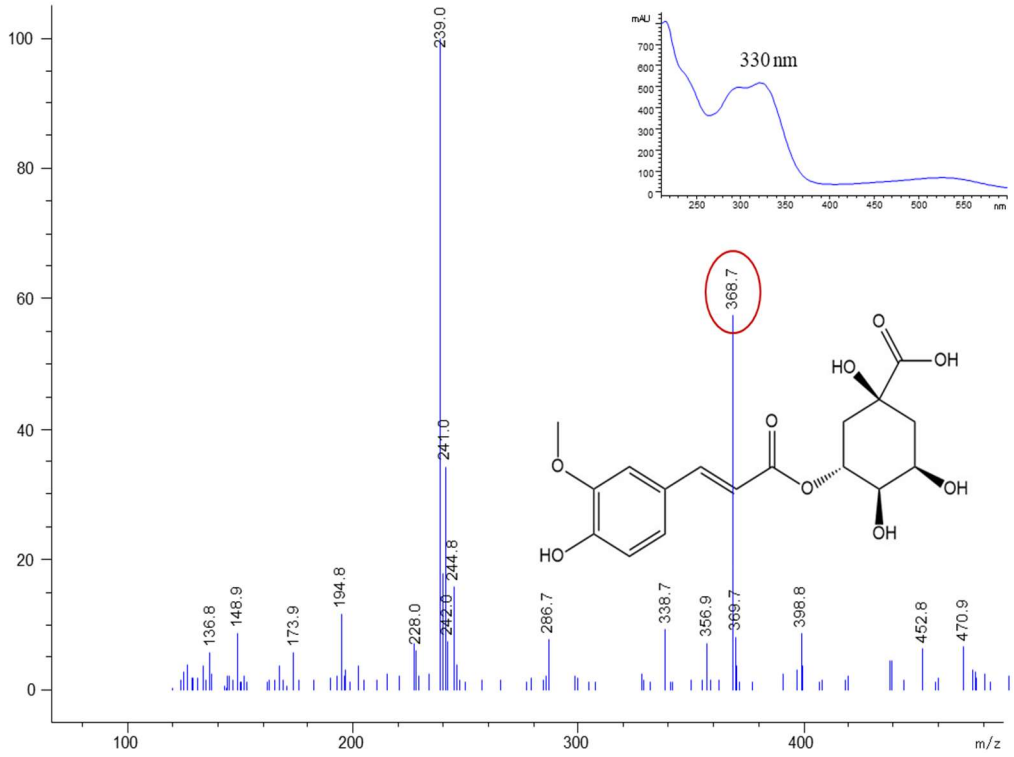
(d) peak 3 Cyanidin-3-(p-coumaroyl)-diglucoside-5-glucoside



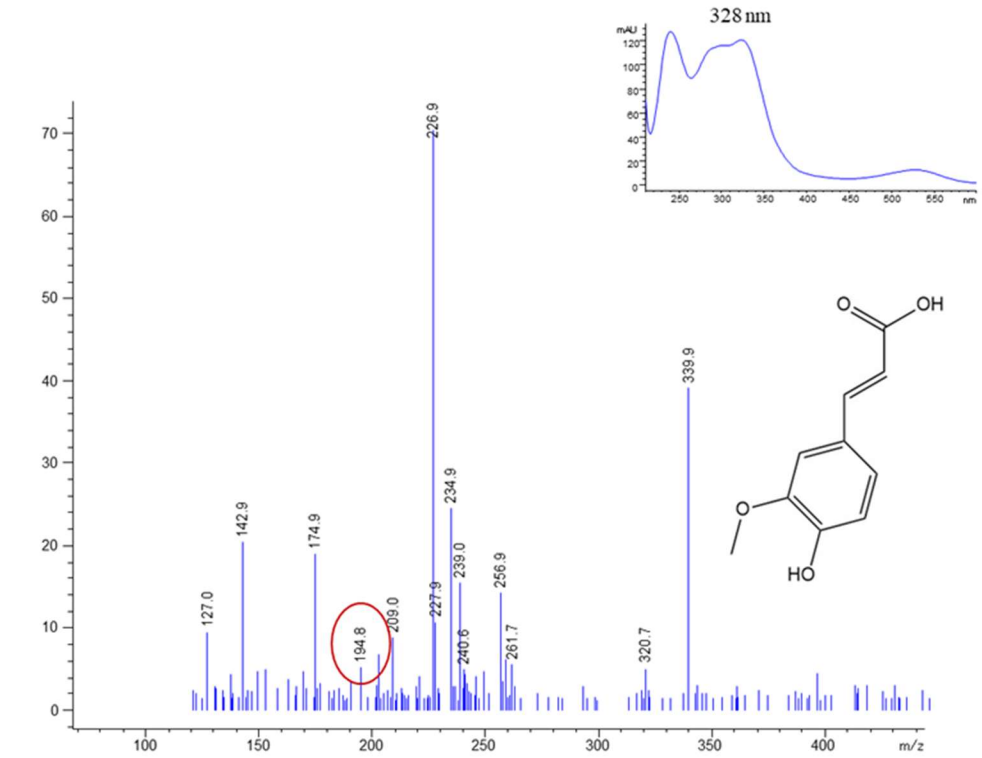
(e) peak 4
Cyanidin-3-(feruloyl)-glucoside-5-glucoside



(f) peak 5
Caffeic acid



(g) peak 6
Feruloylquinic acid



(h) peak 7
Ferulic acid

Figure 5. LC-MS; UV/VIS scanning spectra; chemical structures of black carrot: (a) peak 1, (b) peak 2, (c) peak 3, (d) peak 4, (e) peak 5, (f) peak 6, (g) peak 7, (h) peak 8.