

**Table S1.** Mean contents of elucidated metabolites in coffee samples, expressed as normalized mean mass intensities.

| Metabolite | Coffees 101-125* | Coffees 201-211* | Coffees 301-306* | Coffees 401-406* | Coffees 501-509* |
|--|---------------------------------|---------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Benzoic acid | 0.68(± 0.28) ^a | 0.60(± 0.16) ^a | 0.505(± 0.062) ^a | 0.581(± 0.18) ^a | 0.573(± 0.076) ^a |
| Coumaric acid | 0.46(± 0.25) ^a | 0.39(± 0.31) ^a | 0.50(± 0.16) ^a | 0.280(± 0.043) ^a | 0.26(± 0.15) ^a |
| Caffeic acid | 1.89(± 0.48) ^a | 1.73(± 0.49) ^a | 1.38(± 0.63) ^a | 1.485(± 0.32) ^a | 1.89(± 0.73) ^a |
| Chlorogenic acid | 10.2(± 6.0) ^a | 4.1(± 1.3) ^b | 2.56(± 0.84) ^b | 8.0(± 3.2) ^{ab} | 7.0(± 3.0) ^{ab} |
| Quinic acid | 40(± 20) ^a | 48(± 14) ^a | 42.4(± 2.7) ^a | 44.0(± 8.0) ^a | 41(± 12) ^a |
| Caffeoyl-quinolactone | 2.3(± 2.0) ^a | 3.1(± 2.5) ^a | 3.2(± 2.8) ^a | 0.97(± 0.40) ^a | 2.2(± 2.0) ^a |
| p-Coumaroyl quinic acid | 0.40(± 0.56) ^a | 1.0(± 2.2) ^a | 0.52(± 0.35) ^a | 0.39(± 0.45) ^a | 0.49(± 0.43) ^a |
| Feruloyl-quinolactone | 14.5(± 9.0) ^a | 11.6(± 6.3) ^a | 3.9(± 2.5) ^a | 17(± 12) ^a | 17(± 10) ^a |
| Dicaffeoyl quinic acid | 5.2(± 7.8) ^a | 2.9(± 1.7) ^a | 4.6(± 5.4) ^a | 5.3(± 4.2) ^a | 4.8(± 6.1) ^a |
| Caffeoyl-feruloylquinic acid | 3.9(± 2.6) ^a | 2.0(± 1.5) ^a | 1.43(± 0.96) ^a | 3.4(± 2.5) ^a | 3.2(± 1.3) ^a |
| Dihydroxy-kaurenoic acid | 3.4(± 3.8) ^a | 0 | 0 | 4.4(± 6.6) ^a | 0.27(± 0.59) ^a |
| Atractyligenin-O-hexoside | 47(± 27) ^a | 27(± 19) ^{ab} | 17(± 15) ^b | 21(± 13) ^{ab} | 26(± 15) ^{ab} |
| Isovaleryl- attractyligenin-O- hexoside derivative | 10.0(± 6.3) ^a | 9.1(± 5.3) ^a | 3.55(± 0.97) ^a | 5.0(± 2.9) ^a | 5.2(± 2.9) ^a |
| Cafestol | 1.1(± 1.0) ^a | 0.70(± 0.82) ^a | 0.161(± 0.027) ^a | 0.143(± 0.025) ^a | 0.92(± 0.97) ^a |
| Kahweol | 1.9(± 1.2) ^a | 1.81(± 0.94) ^a | 1.28(± 0.76) ^a | 1.00(± 0.74) ^a | 1.03(± 0.68) ^a |
| Trihydroxy-octadecaenoic acid | 10.2(± 9.3) ^a | 6.1(± 6.7) ^a | 3.6(± 3.1) ^a | 2.8(± 1.7) ^a | 8.6(± 6.6) ^a |
| Linoleic acid methyl ester | 0.40(± 0.28) ^a | 0.62(± 0.53) ^a | 0.63(± 0.59) ^a | 0.18(± 0.16) ^a | 0.41(± 0.19) ^a |
| Caffeoyl-N-tryptophan | 0.78(± 0.89) ^a | 1.17(± 0.74) ^a | 0.8(± 1.8) ^a | 0.91(± 1.8) ^a | 0.43(± 0.62) ^a |

* The results were expressed as Average(\pm standard deviation); ^{a-b} Different letters in the same row indicate statistically different values ($P < 0.05$). 3
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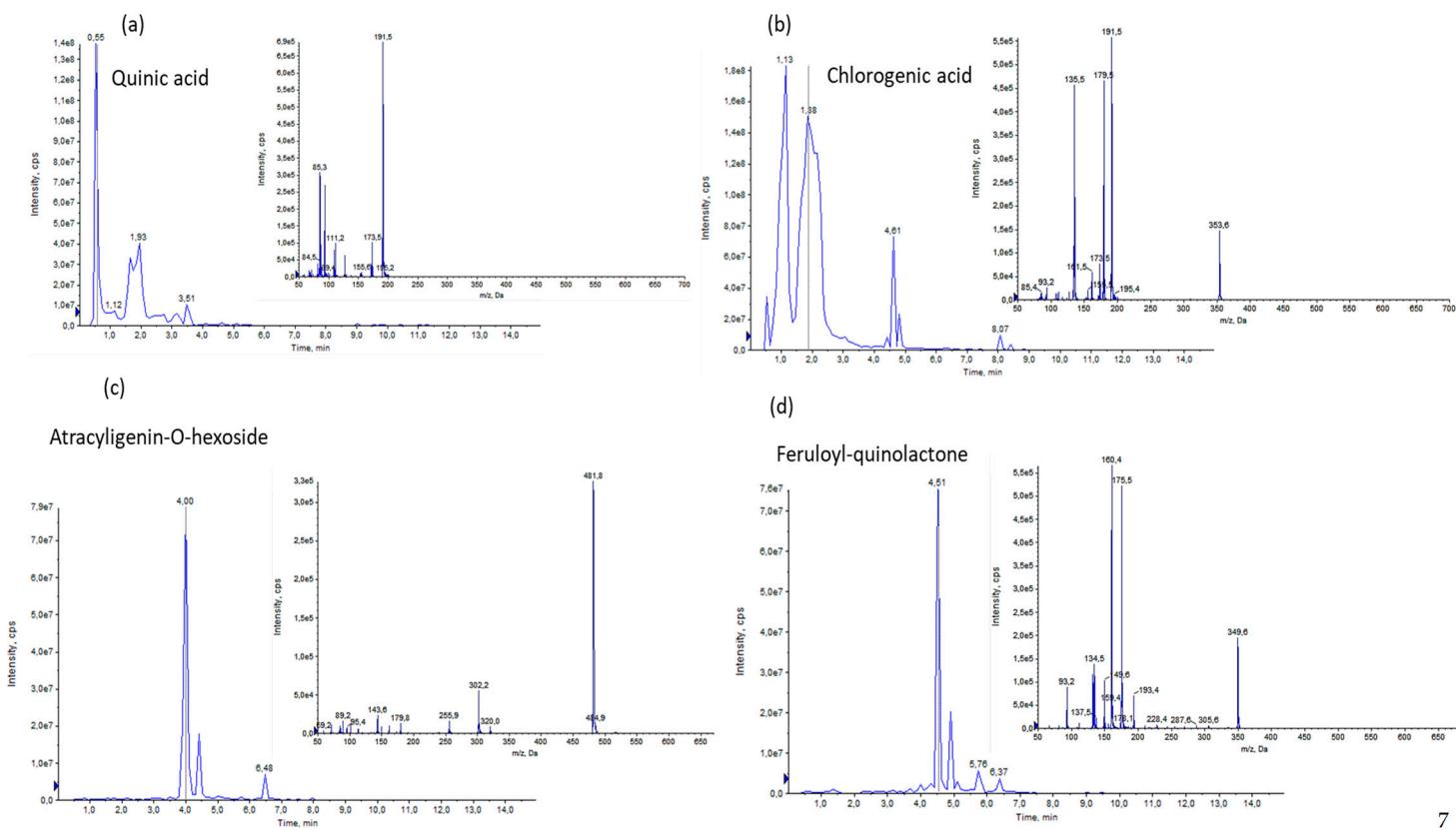


Figure S1. Chromatographs and mass spectra of selected metabolites **(a)** quinic acid; **(b)** chlorogenic acid, **(c)** atracyligenin-O-hexoside, **(d)** feruloyl-quinolactone.