

Table S1. UPLC/ESI-MS² characterization of polyphenolic compounds in sea buckthorn leaves and berries extracts obtained by convectional extraction (CE)

| Phenolic compounds | Precursor Ion (m/z) | Fragment Ions (m/z) | Ionization Mode | Mass Concentration (mg/100 g dm) | |
|---|------------------------|---------------------------|--------------------|-------------------------------------|------------|
| | | | | Leaves | Berries |
| FLAVONOLS | | | | | |
| 1 Isorhamnetin | 317 | 201 | positive | 3.2±0.0 | 0.7±0.0 |
| 2 Isorhamnetin-3-sinapoylglucose-glucoside-7-rhamnoside | 993 | 463, 317 | positive | 1.8±0.0 | 2.2±0.0 |
| 3 Ishorhamnetin-3-sophoroside-7-rhamnoside | 787 | 463, 317 | positive | 7.8±1.0 | 1.3±0.0 |
| 4 Isorhamnetin-3-rutinoside-7-glucoside | 787 | 479, 317 | positive | 3.7±0.0 | 2.4±0.0 |
| 5 Isorhamnetin-3-hexoside | 479 | 317 | positive | 49.0±3.6 | 17.7±2.6 |
| 6 Isorhamnetin-3-rhamnoside | 463 | 317 | positive | 10.8±1.4 | 40.6±4.1 |
| 7 Isorhamnetin-3,7-dihexoside | 641 | 479,317 | positive | 15.9±2.1 | 41.1±5.13 |
| 8 Isorhamnetin-3-rutinoside | 625 | 479, 317 | positive | 17.8±1.9 | 19.7±0.6 |
| 9 Kaempferol | 287 | 145 | positive | 18.0±2.6 | 30.9±1.5 |
| 10 Kaempferol-3-O-sophorose-7-O-rhamnoside | 757 | 287 | positive | 5.8±0.5 | 15.3±0.9 |
| 11 Kaempferol-3-O-glucoside-7-O-rhamnoside | 595 | 433, 287 | positive | nd | 11.4±1.4 |
| 12 Kaempferol-3-rutinoside* | 595 | 287 | positive | 1.0±0.1 | 303.1±14.5 |
| 13 Kaempferol-rhamnoside | 433 | 287 | positive | 0.5±0.0 | 61.3±8.6 |
| 14 Quercetin-3-sophoroside-7-rhamnoside | 773 | 611,303 | positive | 2.4±0.1 | 7.3±0.3 |
| 15 Quercetin-3-rhamnosylglucoside-7-rhamnoside | 757 | 303 | positive | 2.4±0.2 | 5.7±1.4 |
| 16 Quercetin-3-rutinoside (rutin) | 611 | 303 | positive | 14.3±1.0 | 19.9±1.9 |
| 17 Quercetin-3-glucoside* | 465 | 303 | positive | 6.5±1.5 | 4.0±0.0 |
| 18 Quercetin-3-rhamnoside (quercitrin) | 449 | 303 | positive | 4.5±0.8 | 21.6±4.3 |
| 19 Quercetin-3-pentoside | 435 | 303 | positive | 1.2±0.0 | 7.2±0.2 |
| FLAVAN-3-OLS | | | | | |
| 20 Catechin* | 291 | 139 | positive | 1.9±0.0 | 5.1±0.4 |
| 21 Epicatechin* | 291 | 165 | positive | 1.0±0.0 | 10.7±2.4 |
| PHENOLIC ACIDS | | | | | |

| | | | | | | |
|----|-----------------------|-----|-----|----------|-----------------|-----------|
| 22 | Caffeic acid* | 179 | 135 | negative | 26.2±2.4 | 8.6±0.6 |
| 23 | Chlorogenic acid* | 353 | 191 | negative | 1.1±0.0 | 0.6±0.0 |
| 24 | Ellagic acid | 301 | 257 | negative | 1.7±0.0 | 22.5±4.2 |
| 25 | Gallic acid* | 169 | 125 | negative | 0.2±0.0 | 91.8±10.4 |
| 26 | p-hydroxybenzoic acid | 137 | 93 | negative | 39.4±5.4 | 29.2±4.7 |
| 27 | p-coumaric acid* | 163 | 119 | negative | 4.2±0.0 | 18.5±2.5 |
| 28 | Protocatechuic acid | 153 | 109 | negative | 31.0±4.1 | 3.94±0.0 |
| 29 | Vanillic acid* | 169 | 125 | positive | 24.9±2.6 | 22.4±4.5 |

* identification confirmed using authentic standards; nd-not detected. dm-dry mass. Bold fragment ions - major fragment ions