

Separation of catechin compounds from teas using RP-HPLC

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In this work, qualitative and quantitative analysis about catechin compounds was carried out using the extracts of the eleven species of teas (Korean green tea, Chinese green tea, flower tea, red tea, jasmine tea, bamboo tea, tieguanyin tea, longjing tea, olong tea, puerh tea and Indian black tea). The five kinds of catechin compounds of (-)-epigallocatechin gallate (EGCG), (-)-epigallo catechin (EGC), (-)-epicatechin gallate (ECG), (-)-epicatechin (EC) and (+)-catechin (+C) were separated by RP-HPLC (RS-T C18 column, 0.46×25cm, 5 μ m). The composition of mobile phase in reservoir A was water/acetic acid=99.9/0.1, vol.% and reservoir B was acetonitrile/acetic acid =99.9/0.1, vol.%. and run time 30min, The solvent program was linear gradient method (90:10-70:30, A:B vol.%) for 30min. The result showed that Chinese green tea contains the largest quantity of catechin compounds than the other teas.