Antioxidative phenolic compounds isolated from almond skins (*Prunus amygdalus* Batsch).

Sang, S 2002
Journal Of Agricultural And Food Chemistry
50(8):2459-2463.

Abstract:
Nine phenolic compounds were isolated from the ethyl acetate and n-butanol fractions of almond (Prunus amygdalus) skins. On the basis of NMR data, MS data, and comparison with the literature, these compounds were identified as 3'-O-methylquercetin 3-O-b-D glucopyranoside (1); 3'-Omethylquercetin 3-O-b-D-galactopyranoside (2); 3'-O-methylquercetin 3-O-a-L-rhamnopyranosyl-(1-->6)- b-D glucopyranoside (3); kaempferol 3-O-a-L-rhamnopyranosyl-(1-->6)-b-D-glucopyranoside (4); naringenin 7-O-b-D-glucopyranoside (5); catechin (6); protocatechuic acid (7); vanillic acid (8); and p-hydroxybenzoic acid (9). All of these compounds have been isolated from almond skins for the first time. 2,2-Diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging activities for compounds 1-9 were determined. Compounds 6 and 7 show very strong DPPH radical scavenging activity. Compounds 1-3, 5, 8, and 9 show strong activity, whereas compound 4 has very weak activity.