

Supplementary material

Hop compounds: extraction techniques, chemical analyses, antioxidative, antimicrobial and anticarcinogenic effects

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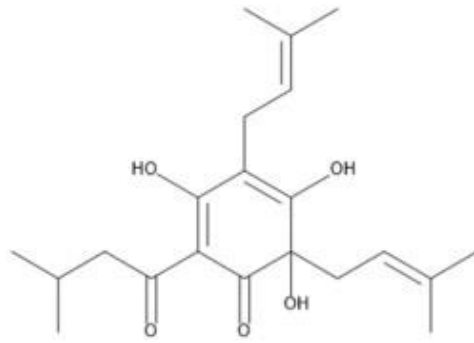
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 - ² Laboratory of Physical Chemistry and Chemical Thermodynamics, Faculty of Chemistry and Chemical Engineering, University of Maribor, Smetanova ulica 17, SI-2000 Maribor, Slovenia.
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Figure S1. Chemical structures of typical representatives of soft and hard resins.

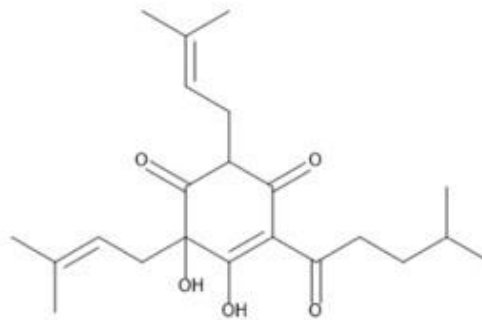
Class	Structure	Representatives
Soft resins/ Bitter acids		Adhumulone
Alpha-acids and derivatives		Adprehumolone
		Cohumulone

Soft resins/ Bitter acids

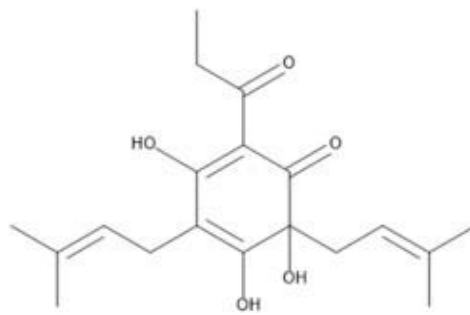
Alpha-acids and derivatives



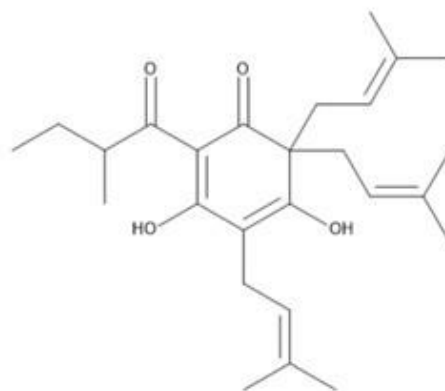
Humulone



Prehumulone



Posthumulone

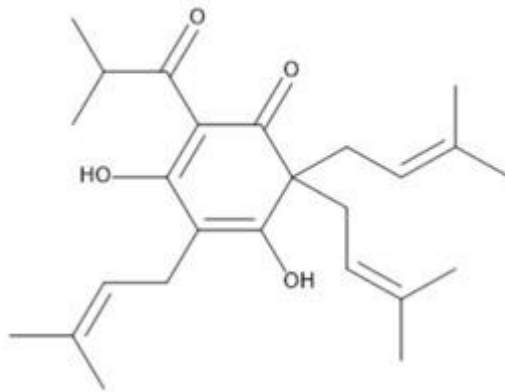


Adlupulone

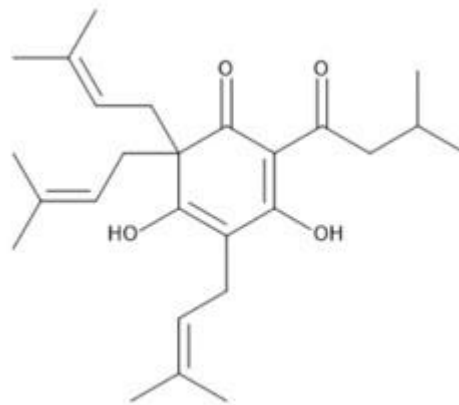
Soft resins/ Bitter acids

Beta-acids and derivatives

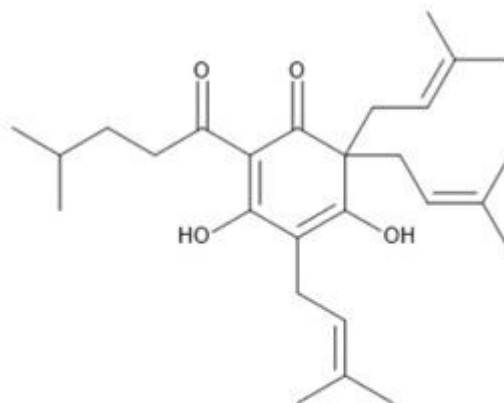
Colupulone



Lupulone



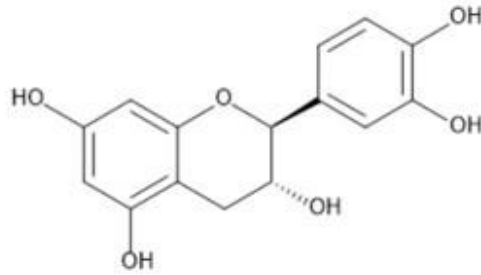
Prelupulone



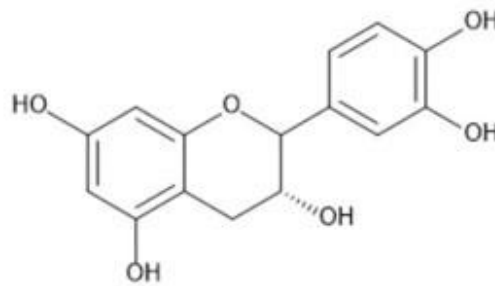
**Hard Resins/
Polyphenols**

Catechins

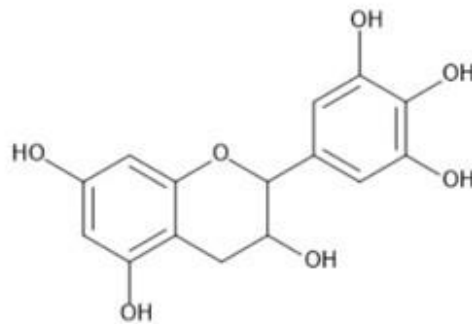
(-)-Catechin



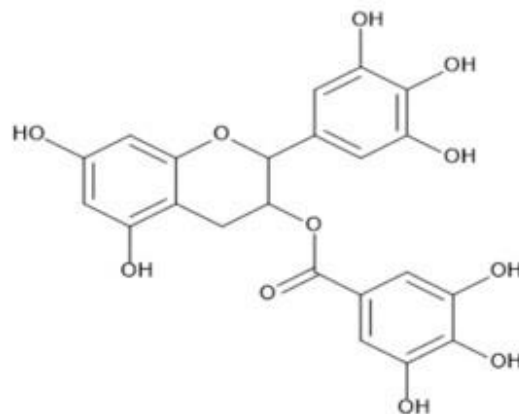
Epicatechin



Epigallocatechin



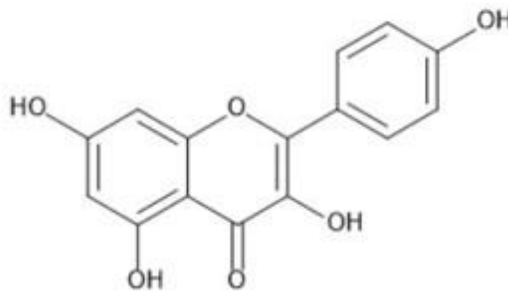
Epigallocatechin-3-
O-gallate



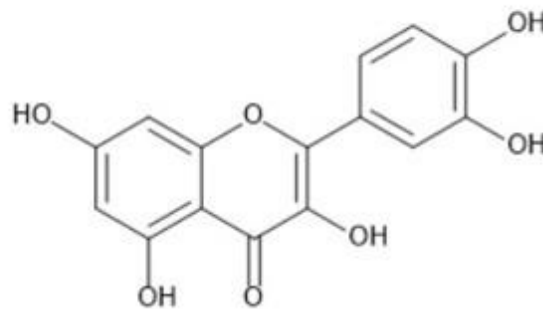
Hard Resins/
Polyphenols

Kaempferol

Flavonols

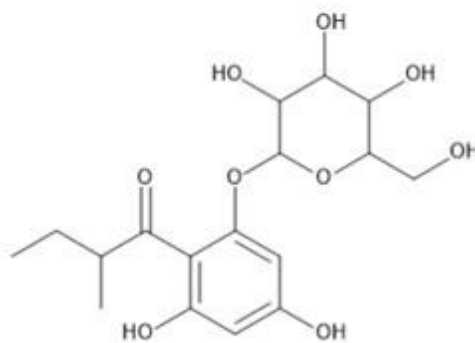


Quercetin



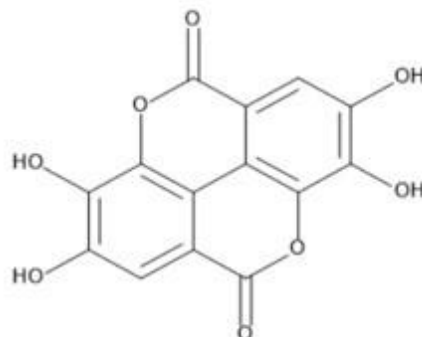
Multifidol
glucosides

Multifidol glucoside



Hydroxybenzoic
acids and
derivatives

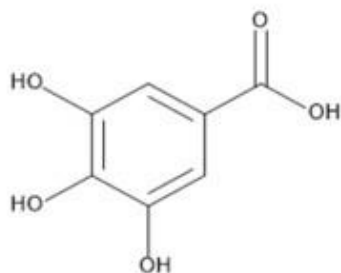
Ellagic acid



**Hard Resins/
Polyphenols**

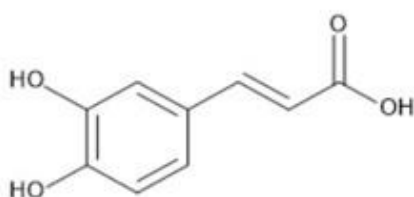
Gallic acid

Hydroxybenzoic
acids and
derivatives

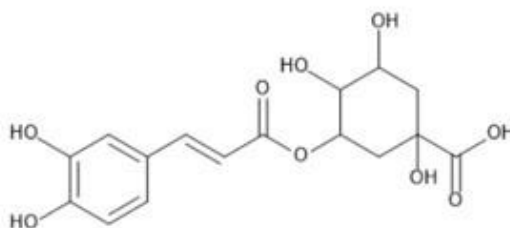


Hydroxycinnamic
acids and
derivatives

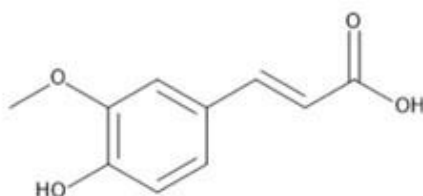
Caffeic acids



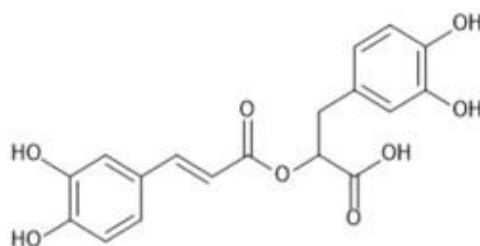
Chlorogenic acids



Ferulic acid

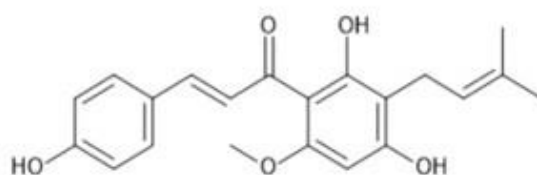


Rosmarinic acid



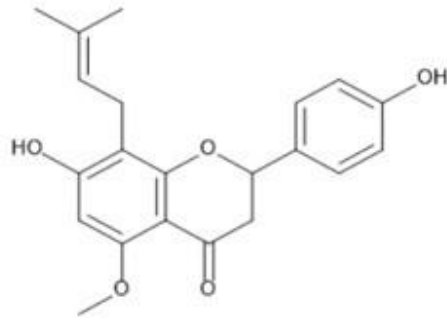
Prenylflavonoids

Xanthohumol

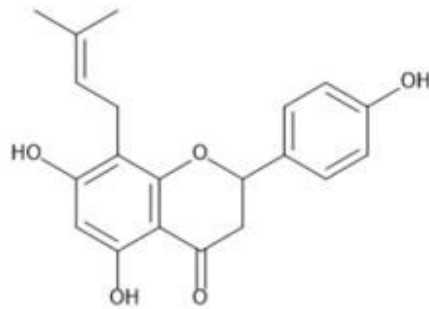


**Hard Resins/
Polyphenols**

Prenylflavonoids

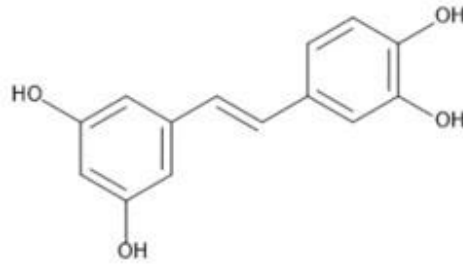


Isoxanthohumol

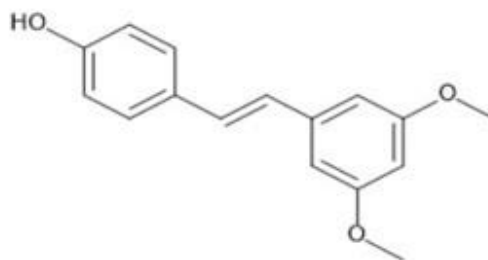


8-prenylnaringenin

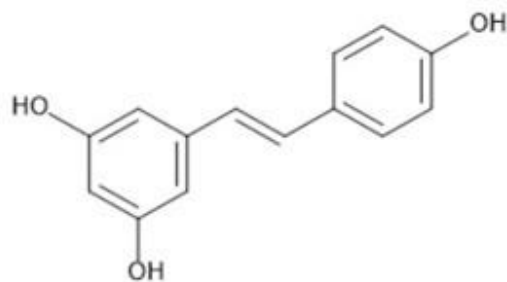
Stilbenes



Piceatannol



Pterostilbene



Resveratrol
