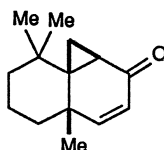
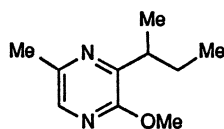
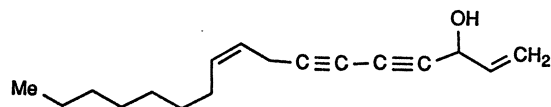
 β -Guaiene (91-23)

Mayurone (91-24)

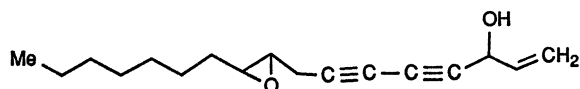
From the basic fraction of the volatile extract of ginseng root, some pyrazine derivatives such as 3-*sec*-butyl-2-methoxy-5-methylpyrazine and 3-isopropyl-2-methoxy-5-methylpyrazine were identified by gas chromatography-mass spectrometry. 3-*sec*-Butyl-2-methoxy-5-methylpyrazine (91-25) exhibits a characteristic floral, moldy aroma with an odor threshold concentration of 2 ppb (2×10^{-9}) in water [61].

3-*sec*-Butyl-2-methoxy-5-methylpyrazine (91-25)

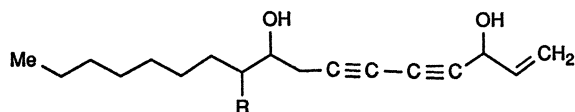
Some acetylenic compounds were also isolated from ginseng root. Panaxynol (91-26) was obtained from the higher boiling fraction of volatile oil isolated from ginseng root [62, 63]. Panaxydol (91-27), a polyacetylenic epoxide [64], panaxytriol (91-28) [65], and heptadeca-1-ene-4,6-diyn-3,9-diol (91-29) were also isolated and identified [66].



Panaxynol (91-26)



Panaxydol (91-27)



Panaxytriol (91-28): R = OH

Heptadeca-1-ene-4,6-diyn-3,9-diol (91-29): R = H