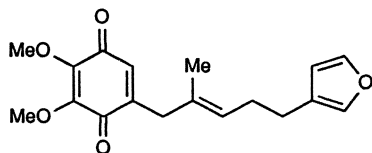


80.2.2 Chemical Constituents of *Arnebia euchroma*

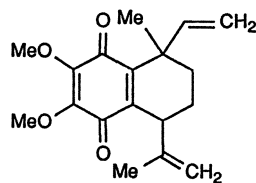
The root of *A. euchroma*, like the root of *L. erythrorhizon*, contains a number of naphthaquinone pigments. Shikonin, deoxyshikonin, acetylshikonin [25], β,β -dimethylacrylalkannin [25, 26], β -acetoxyisovalerylalkannin, β -hydroxyisovalerylalkannin [25], teracrylshikonin [27], and alkannin [8] were found. Alkannin contents varied from 5% in the top-quality material from *A. euchroma* to 0.8% in the low-quality material from *A. guttata* [8]. A mixture of shikonofurans B and C was also found in *A. euchroma* as a slightly yellow oil [28].

Arnebifuranone (80-15), a new monoterpenylbenzoquinone, was isolated from *A. euchroma*. It was found to be a 2,3-dimethoxy-1,4-benzoquinone with a monoterpenyl side chain containing a furan ring [29].



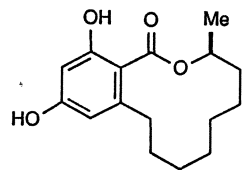
Arnebifuranone (80-15)

Arnebinone (80-16), isolated from the root of *A. euchroma*, is another novel monoterpenylbenzoquinone, in which the monoterpenyl moiety forms a six-membered ring condensed to benzoquinone. The structure of arnebinone was elucidated by spectroscopic studies [28].

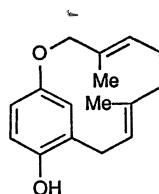


Arnebinone (80-16)

Furthermore, *O*-demethylsiodiplodin (80-17) and a new monoterpenylbenzoid of the ansa type named arnebinol (80-18) were isolated from the roots of *A. euchroma* [30]. Their structures were determined by spectral and X-ray analysis.



O-Demethylsiodiplodin (80-17)



Arnebinol (80-18)