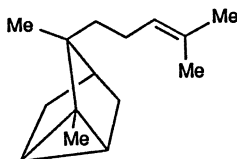
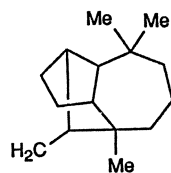
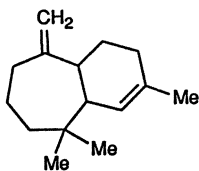
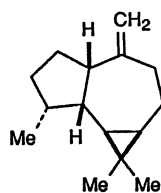


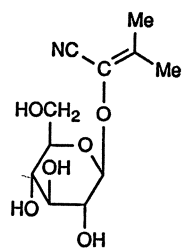
Safrole (25-5)

 α -Santalene (25-6)

Longifolene (25-7)

 α -Himachalene (25-8)

Alloaromadendrene (25-9)



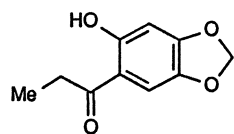
Acacipetalin (25-10)

The chemical compositions of the essential oils from other *Asarum* species have also been investigated including *A. caulescens*, *A. chinense*, *A. debile*, *A. ichangense*, *A. insigne*, *A. longerhizomatosum*, *A. magnificum*, *A. maximum*, *A. pulchellum*, and *A. wulingense*. A total of 53 components were determined by GC/MS. Safrole, methyleugenol, and elemicin were present in all ten species [6]. The essential oil content of *A. ichangense*, *A. wulingense*, and *A. longerhizomatosum* were analyzed and compared with that of the official species *A. heterotropoides* var. *manshuricum*. *A. longerhizomatosum* had the largest amount (3%) with methyleugenol as the major component; *A. ichangense* had the smallest amount (0.6%–0.9%) [7].

25.3 Pharmacology

The hemodynamic activity of *A. heterotropoides* in anesthetized dogs was compared with that of higenamine (3-98) and isoprenaline. *Asarum* extract had less heart rate increasing but more cardiac output stimulating effects than higenamine and isoprenaline [8, 9].

In mice, essential oil isolated from *A. forbesii* produced a dose dependent anti-hyperlipemic effect when given orally. The active principle was identified as kakuol (25-11).



Kakuol (25-11)