Neutral Diterpenoids from Needle-Free Shoots of Siberian Fir

Tatyana P. Kukina, and Victor A. Raldugin

Novosibirsk Institute of Organic Chemistry, Siberian Branch of the Russian Academy of Sciences, 9 prosp. Acad. Lavrent'eva, 630090 Novosibirsk, Russian Federation. Fax:+7 (383 2) 344 752. E-mail: raldugin@nioch.nsc.ru

Green shoots of Siberian fir (*Abies sibirica* Ledb.) have significant importance for some technological processes of modern forest chemistry industry. The physical components of these shoots are needles and needle-free shoots.

We investigated the neutral part of the ether extract obtained from air-dried needle-free shoots of Siberian fir. There are found the series of lanostanolides, some diterpenoid alcohols which are known for raw materials investigated as well new components (geranylgeraniol, anticopalol, sandaracopimarol) and two epoxyditerpenols ((12R, 13R)-8, 12-epoxylabd-14-en-13-ol (1) and its 12, 13-diepimer (2)).



Acetylation (Ac₂O/Py, r.t.) of polar fraction containing mentioned diterpenoids do not affect the epoxyalkohol (1) and this compound may be easily isolated in pure state by adsorption chromatography on the silica gel.