

TRITERPENOIDS AND STEROIDS OF SOME DOMESTIC SPECIES OF *Rhododendron*

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The present paper gives the results of an investigation of the triterpene composition of four Far-Eastern species of rhododendron — *Rhododendron fauerei* Franch., *Rh. schlippenbachii* Maxim., *Rh. sichotense* Pojark., and *Rh. tschonoskii* Maxim., and one Sayan species — *Rh. parvifolium* Adam.

From chloroform extracts of leafy shoots of the plants, by chromatography on alumina, we have obtained a number of crystalline substances and have identified some of them with known triterpene compounds: simiarol, betulin, friedelin, and taraxerol (Table 1), which have been isolated previously from other species of rhododendron [1-3].

In the *Rh. schlippenbachii* investigated [1] in addition to taraxerol we found friedelin. In acidic fractions of extracts of the plants studied we found ursolic acid; it was isolated preparatively from *Rh. fauerei*, and in the other species its presence was established by TLC.

In all the rhododendrons considered, with the exception of *Rh. tschonoskii*, in addition to triterpenoids we found β -sitosterol. It has also been isolated from *Rh. adamsii*, *luteum*, and *dahuricum*, the triterpene composition of which has been studied previously [1].

The identities of all the substances obtained were confirmed by their IR spectra, physicochemical constants, and mixed melting points and by the preparation of some derivatives.

TABLE 1

Species	Substance	mp, °C	$[\alpha]_D$, deg.	Derivative	mp, °C	$[\alpha]_D$, deg.	Literature data
<i>Rh. fauerei</i> Franch.	Simiarol	209	+51,1	Simiarol acetate	209	+70,2	[4]
	Ursolic acid	285	+70,8	Methyl ursolate	168	—	[5]
<i>Rh. parvifolium</i> Adam.	Ursolic acid*	—	—	—	—	—	
<i>Rh. schlippenbachii</i> Maxim.	Taraxerol	272	± 0	Taraxerol acetate	292	+10,0	[5]
	Friedelin	258	-25,4	Friedelin enol-Bz	262	+67,5	[6]
	Ursolic acid*	—	—	—	—	—	
<i>Rh. sichotense</i> Pojark.	Betulin	255	+18,5	Betulin acetate	218	+18,5	[5]
	Ursolic acid*	—	—	—	—	—	
<i>Rh. tschonoskii</i> Maxim.	Taraxerol	279	± 0	Taraxerol acetate	295	+10,1	[5]
	Ursolic acid*	—	—	—	—	—	

*The presence of the substance was established by TLC (acidic Al₂O₃, chloroform-methanol 9:1).

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