

THE TRITERPENOIDS OF SOME SPECIES OF RHODODENDRON

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Khimiya Prirodnnykh Soedinenii, Vol. 6, No. 1, pp. 137-138, 1970

UDC 547.913

We have studied seven species of Rhododendron, family Ericaceae growing in the territory of the Soviet Union.

Species	Substance	Mp, °C	Derivative	Mp, °C	
				found	literature data
<i>Rhododendron adamsii</i> Rehd.	Ursolic acid	288	Methyl ursolate	170	170-171.5[1]
	Oleanolic acid	301	Methyl oleanolate	198	201[1]
<i>Rhododendron aureum</i> Georg.	Campanullin	204	Alnus-5(10)-enol	237	242[2,3]
	Taraxerone	242	Alnus-5(10)-enol acetate	284	302[2,3]
<i>Rhododendron dahuricum</i> L.	Taraxerol	272	Taraxerone 2,4-dinitro-phenylhydrazone	256	257-258.5[4]
	Betulin	259	Taraxerone	242	245-249[1]
	Ursolic acid	286	Betulin acetate	218	221[1]
<i>Rhododendron kotschy</i> Simk.	Uvaol	222	Methyl ursolate	168	170-171.5[1]
			Uvaol acetate	149	153-154.5[1]
<i>Rhododendron luteum</i> Sweet.	Friedelin	262	Uvaol benzoate	164	-
	Taraxerol	280	Friedelin oxime	285	290[1]
<i>Rhododendron mucronulatum</i> Turcz.	Simiarol	209	Taraxerol acetate	296	303-305[1]
			Simiarol acetate	209	209[5,6]
<i>Rhododendron schlippenbachii</i> Maxim.	Taraxerol	278	Simiarol benzoate	194	197[5,6]
			Simiarone	205	207[5,6]
			Episimiarol	191	197[5]
			Isosimiarol	225	225[6]
			Isosimiarol acetate	259	268[6]
			Taraxerol acetate	300	303-305[1]

From chloroform extracts of leafy shoots of the plants by chromatography on alumina, a series of crystalline substances was isolated some of which were identified as campanullin, taraxerone, friedelin, simiarol, taraxerol, betulin, uvaol, and ursolic and oleanolic acids. Taraxerol was found in three species, and ursolic acid was isolated from two plants.

For the identification of all the compounds isolated, a number of derivatives was obtained by the usual methods. All the substances investigated were characterized on the basis of the results of IR spectroscopy. The triterpene compounds obtained and their derivatives that were identified from literature data, with the exception of campanullin and simiarol, gave no depression of the melting point with the corresponding authentic samples.

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28 September 1969

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