

A FLAVONOID BIOSIDE FROM THE CELL SAP OF KALANCHOE PINNATA

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In the sap of Kalanchoe pinnata (airplant kalanchoe) we have detected polysaccharides (about 35-40%), mineral salts, and flavonoids.

The flavonoid compounds were extracted by chromatography on polyamide after the precipitation of the polysaccharide. Elution with 30% ethanol in 15% acetic acid gave a flavonoid with mp 197-199° C and R_f 0.61.

Acid hydrolysis with 1% HCl formed quercetin with mp 309-312° C, and hydrolysis with 1% formic acid for 5 min yielded desrhamnozhealin [1].

A study of the UV spectra [2] showed the presence of four hydroxyl groups (C-5, C-7, C-3', and C-4'), which proves that the sugar residue is attached at C-3 in the form of a bioside.

The glycoside is not cleaved by enzyme preparations of emulsin and snail pancreatic juice.

The properties of the glycoside are close to those of zhealin (quercetin 3-O- α -L-arabopyranosyl-2- α -L-rhamnofuranoside), which is also confirmed by two-dimensional chromatography of mixtures of them in several systems of solvents [1].

REFERENCES

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