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Thematic course: Fruit polysaccharides. Part I.

General chemical characteristics of polysaccharides of pomegranate fruits (*Punica granatum* L.)

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Abstract

A number of polysaccharide fractions were isolated from peels and partitions of the pomegranate fruit with the aid of the previously developed method of isolation of polysaccharides from plant raw materials by means of successive extraction with water, with ammonium oxalate and with alkali solutions. The general chemical characteristics of isolated polysaccharides is given and their biological activity is determined. The fractions extracted with water and with ammonium oxalate belong to the class of pectic polysaccharides. The fractions extracted with alkali solutions belong to the hemicelluloses. The highest biological activity in regard to the effect on the germination and energy of germination and the rate of growth of seedlings and roots of the cereal crops (wheat, rye, oats) has fraction of pectins, isolated from the pomegranate fruit by extraction with ammonium oxalate.