

E0011

The Common Features of Structural Change of the Monosaccharide-Based Gels. H. Grigoriew, Institute of Nuclear Chemistry and Technology, 03 195 Warsaw, Poland.

The structural study of monosaccharide-based gels using the SAXS method at HASYLAB-DESY synchrotron, was carried out for: **A** - *in situ* process of gelation of α -galactose-based gel¹, and **B** - glucofuranose-based gels at various gelator concentrations. The small values of polydispersity index², PDI, found for these materials entitled us to perform analyses of the SAXS data using methods elaborated for monodisperse structures³. We found the following parameters: the mass- and surface-fractal dimensions, radius of gyration, distance distribution function and model simulation of the aggregate. These results indicated that some structural features change in similar way in both groups of materials. They are: 1/ an existence of big, loose, rounded aggregates in sols (**A**) or gels of small gelator concentration (**B**), and 2/ slightly smaller, more compact, and elongated aggregates after gelation (**A**) or for bigger gelator concentration (**B**). This structural change is not gradual, but sharp.

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