# MICROWAVE-ASSISTED CHEMICAL TRANSFORMATION OF POLYSACCHARIDES

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In the last years, the use of microwave-irradiation has developed from a standard kitchen device into a helpful tool for heating of chemical reactions. At least two advantages of this technique have to be mentioned: the increase of the reaction rates and the higher purity of the products. The faster reaction rates are mainly due to the higher temperatures which can be attained while the cleaner reactions are based on the very fast and homogeneous heating. The use of microwave technique in the polymer chemistry is even more recent, the first publications in this topic being issued after 2000. The number of publications in this field is rapidly increasing and there are already a number of research groups deeply dedicated to this topic. The polymerizations performed under microwaves are accelerated while the molecular mass distributions can be improved [1, 2]. The chemical transformation of polymers, especially the natural ones, was also performed by some authors [3, 4].

In our contribution we present the preliminary results concerning the synthesis and characterisation of some phosphorylated polysaccharides by microwave-assisted reactions. Phosphorylated derivatives were characterized by elemental analysis, electrochemical titration, FT-IR and NMR spectra, thermogravimetric analysis and the results were compared to our data obtained by conventional method [5].

References

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