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Depolymerization of oligosaccharides from hemicelluloses in a biorefinery



1st July 2019, Valentin Guigon defended his doctoral thesis of the University Grenoble Alpes, prepared under the supervision of the Professor Christine Chirat, and of the Emeritus Professor Dominique Lachenal (Grenoble INP-Pagora/LGP2). He presented the results of his research work entitled *Study of depolymerization processes of oligosaccharides from hemicelluloses in a biorefinery*.

The lignocellulosic biomass is composed of 30% hemicelluloses, which are small polysaccharides. They can lead to interesting chemical platforms that can be declined in various products arousing a growing interest.

In a wood based biorefinery, hemicelluloses were solubilized by water pre-hydrolysis under the form of monosaccharides and oligosaccharides. Then, secondary hydrolysis were performed to convert those oligosaccharides to monosaccharides (acid hydrolysis) or xylans to xyloses (enzymatic hydrolysis).

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