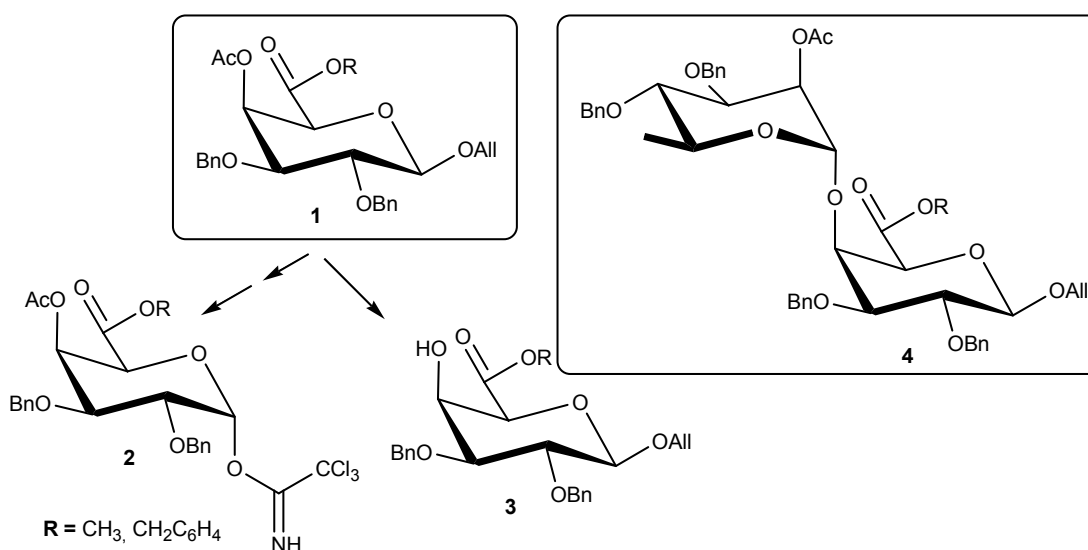


## TALKING ABOUT PECTINS IN BRATISLAVA WOULD THAT BE LIKE CARRYING COAL TO NEWCASTLE?

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The lecture describes methods of step- and blocks wise synthesis of *smooth* homo- and rhamnogalacturonan fragments as well as branched (*hairy*) derivatives.



For the block synthesis, module **1** and disaccharide module **4** are key intermediates that can be used either as glycosyl acceptors or donors after a minimum of manipulations. For example, deallylation and introduction of the trichloroacetimidate function at the anomeric centre of **1** furnished the donor **2**. On the other hand, deacetylation of **1** provided the acceptor **3**. The same procedure was used for module **4**. In generally, on condition that no neighbouring group effects the reaction at the anomeric center of the  $\alpha$ -trichloroacetimidate galacturonate,  $\alpha$ -glycosidic linkages were nearly exclusively formed and that offers for the first time the possibility to synthesize pectin fragments by modular design principle [1]. This methodology was extended for branched rhamnogalacturonan fragments as well as for C-glycosides of galacturonates [2].

[1] Vogel, C.; Nolting, B.; Kramer, S.; Steffan, W.; Ott, A.-J. *Synthesis of Pectin Fragments by Modular Design Principle*. In *Advances in Pectin and Pectinase Research*, Vorhagen, F., Schols, H., Visser, R., Eds.; Kluwer Academic Publishers; Dordrecht, Boston, London, 2003; pp209-220.

[2] Vogel, C.; Farouk, M.; Michalik, M.; Reinke, H.; Jarosz, S. *Polish J. Chem.*, **2005**, *79*, 251-265.