

Study of unprotected glycosyl cations in an enzymatic context

Mathilde ARMAND [1], Ana ARDA [2], Jérôme DÉSIÉRE [1], Ludivine LEBEDEL [1], Bastien MICHELET [1], Agnès MINGOT [1], Alba NIN HILL [3], Jesús JIMÉNEZ-BARBERO [2], Carme ROVIRA [3], Sébastien THIBAudeau [1], Yves BLÉRIOT [1]

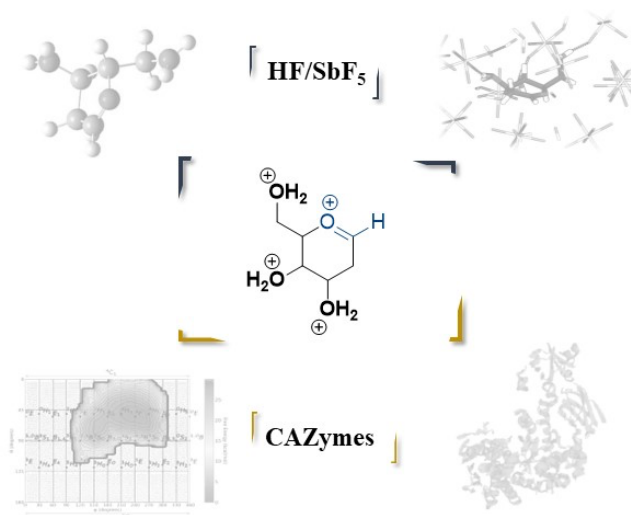
[1] IC2MP, UMR CNRS 7285 - Université de Poitiers, Poitiers, France, [2] CICbioGUNE, Parque Tecnológico de Bizkaia, Derio-Bizkaia, Spain, [3] Institut de Química Teòrica i Computacional – Universitat de Barcelona, Barcelona, Spain

mathilde.armand@univ-poitiers.fr

Malfunction Due to its extremely short lifetime, the study of glycosyl oxocarbenium ions is a real challenge in the field of glycosciences. The impact of protected glycosyl cations on the stereochemical outcome of glycosylation has been studied by various indirect methods^{[1], [2], [3]}. This chemical species has been observed and characterized for the first time in a condensed phase using a superacid medium^[4] and more recently using other spectroscopies^{[5], [6]}.

Essential intermediate in the glycosylation reaction, it has been also postulated in its unprotected form in enzymatic transformations performed by glycosidases and glycosyltransferases^[7]. Therefore, its observation in a condensed phase is challenging and of high interest.

Using superacid chemistry, and *in situ* NMR analysis at low temperature supported by computation, the structure of these chemical species will be presented, and their relevance to enzymatic processes evaluated.



Study of the glycosyl cation in superacid and enzymatic medium

Bibliographic references:

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