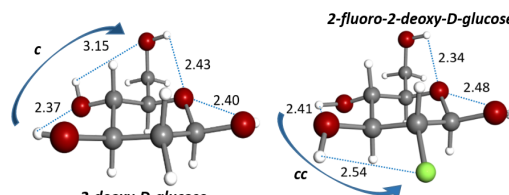


IMPACT OF THE OH-TO-F REPLACEMENTS IN MONOSACCHARIDES

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Bioisosteric OH-to-F replacements, concretely those produced in saccharides, have become a cornerstone in the development of novel drugs and tracers for the non-invasive imaging modalities, like (^{19}F -MR/MRI) and (^{18}F -PET). F and OH groups are isoelectronic and possess similar polarity and steric impact. Despite its remarkable purposes, there is a lack of knowledge about the structural non-covalent interactions involving F in their native context, which are the key in the activities that they develop. By means of high resolution rotational spectroscopy in combination with a laser ablation^{a,b}, we are able to isolate and characterize the intrinsic conformational structures of these fluorinated saccharides, obtaining valuable information about their structure and connection with their biological properties.



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