

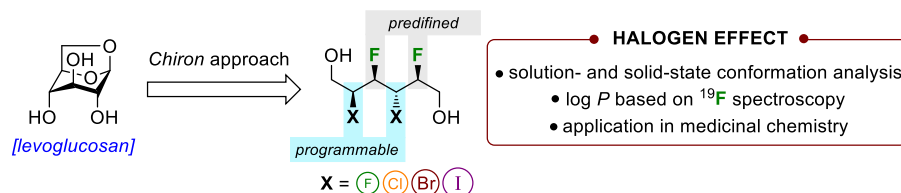
Carbohydrate Approach to Multivincinal Fluorinated and Inter-Halide Stereocenters

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In recent years the synthesis of multivincinal organofluorines has gained attention and their properties have been widely studied. Recently our group reported the synthesis of several polyfluorinated analogues of carbohydrates using a *Chiron* approach and investigated the effect of this element on physicochemical properties such as solution- and solid-state conformation and lipophilicity.¹

To our surprise, multivincinal inter-halides have been ignored from the chemical landscape and efficient synthetic routes leading to these compounds as well as their properties remain unknown. The synthesis of multivincinal inter-halides stereotriads and -tetrads started from levoglucosan and allowed us to obtain novel compounds with an excellent stereocontrol and good yields.² The solution-state were established using a *J*-based configurational analysis and the lipophilicity was assessed with a log *P* determination method based on ¹⁹F NMR spectroscopy. Synthetic application of these compounds in drug discovery was explored with the synthesis of halogenated pitolisant analogues and other medically relevant molecules.



References

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