

PolySac3DB: an annotated data base of 3 dimensional structures of polysaccharides

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PolySac3DB is an annotated database that contains the 3D structural information of about 160 polysaccharide entries that have been collected from an extensive screening of scientific literature. They have been systematically organized using standard names in the field of carbohydrate research into 18 categories representing polysaccharide families. Structure-related information includes the saccharides making up the repeat unit(s) and their glycosidic linkages, the expanded 3D representation of the repeat unit, unit cell dimensions and space group, helix type, diffraction diagram(s) (when applicable), experimental and/or simulation methods used for structure description, link to the abstract of the publication, reference and the atomic coordinate files for visualization and download. The database is accompanied by a user-friendly graphical user interface (GUI). It features interactive displays of polysaccharide structures and customized search options for beginners and experts, respectively. The site also serves as an information portal for polysaccharide structure determination techniques. The web-interface also references external links where other carbohydrate-related resources are available. All the data and features are available via the web-interface utilizing the search engine and can be accessed at <http://polysac3db.cermav.cnrs.fr>.

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