Abstract

Carbohydrate Chemistry and Glycobiology have witnessed a rapid expansion during the last few years with the development of numerous new, imaginative and efficient syntheses which provide further insight into structures and biological interactions of glycoconjugates. Glycosylation reactions are widely used in the synthesis of pharmaceuticals and bio-active compounds. In biology and medicine oligosaccharides play a central role in immunostimulation, cancer or allergic responses. Glycoscience is a very instructive example of how one common topic of interest stimulates both chemistry and biology to collectively open scientific frontiers. This synergy is made visible in this work. Three leading experts in the fields of Glycochemistry and Glycobiology have invited numerous renowned authors to provide a comprehensive overview of the recent advances and findings in Glycoscience. This four-volume handbook presents an integrated and cutting-edge view, and covers all chemical aspects, such as syntheses and analysis of carbohydrates and oligosaccharides, as well as the biological role and activity of oligosaccharides and carbohydrate/protein interactions.
Carbohydrate, class of naturally occurring compounds and derivatives formed from them. Carbohydrates are probably the most abundant and widespread organic substances in nature, and they are essential constituents of all living things. Learn more about carbohydrates in this article.

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Carbohydrate, class of naturally occurring compounds and derivatives formed from them. The definition of carbohydrates in chemistry is as follows: “Optically active polyhydroxy aldehydes or polyhydroxy ketones or substances which give these on hydrolysis are termed as carbohydrates”. Some of the most common carbohydrates that we come across in our daily lives are in form of sugars. These sugars can be in form of Glucose, Sucrose, Fructose, Cellulose, Maltose etc. Browse more Topics under Biomolecule. Carbohydrates are responsible for storing chemical energy in living organisms. You must hear all the time when athletes carbo-load before a game. This is so they can provide themselves with extra energy. They are also an important constituent for supporting tissues in plants and even in some animals. As I am sure you are already aware of photosynthesis. [1]. Chemistry libreTextbooks: Carbohydrates Polysaccharides [2]. Biochemistry (Campbell and Farell) Lehninger Principles of Biochemistry [3]. Biology in Context for Cambridge International AS and A level. [4]. https://openstax.org/books/biology-ap-courses/pages/3-2-carbohydrates [5]. https://en.wikipedia.org/wiki/Glycogen. About this site. A-Level Biology does pretty much what it says on the tin.