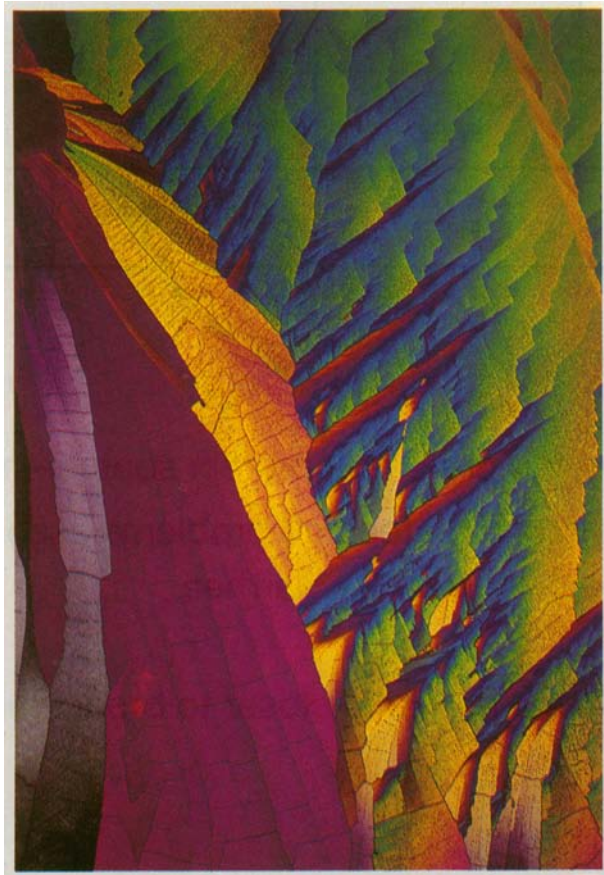


Carbohydrates



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Carbohydrates include such compounds as starches, sugars, gums, and dextrans. These compounds are composed of carbon and water in equimolar amounts, thus the name *carbohydrate*. The simplest carbohydrates are the sugars, usually sweet, with names ending with the suffix *-ose*. Many sugars play a paramount role in biochemical processes, and sugar metabolism usually occupies several chapters in most biochemistry textbooks. Plants absorb carbon dioxide from the atmosphere during photosynthesis and “fix” it into car-

bohydrates stored as starch or cellulose. Animals subsequently eat plants or other herbivores and thus obtain necessary dietary carbohydrates. This sequence of events demonstrates that plant-generated carbohydrates ultimately become the principal source of carbon in all animal tissues, including humans. The photomicrograph illustrates the unusual texture adopted by crystallites of the disaccharide sucrose. Sucrose, commonly used as table sugar, is obtained commercially from sugarcane or sugar beets.