

Carbon Fixation Pathways

In the cycle presented in the above diagram, it is believed that a molecule of carbon dioxide would be added to a 2-carbon compound to form a 3-carbon compound and that some of the molecules of this 3-carbon compound would be drawn off to eventually form carbohydrate, and that other molecules of the 3-carbon compound would each combine with a molecule of carbon dioxide to form 4-carbon molecules. Each 4-carbon molecule would then split to form 2 2-carbon molecules to continue the cycle. Thus, each time around, a 3-carbon compound would be built up and still leave the cycle intact (all compounds that are members

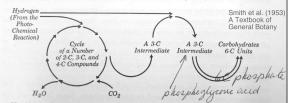


Fig. 125. A schematic representation of the steps in photosynthesis in which carbon ioxide and hydrogen (from the light reaction) are transformed into carbohydrates. For etails refer to the text.

