SCI – FERMENTATION

Some decomposers (certain bacteria and yeasts) can meet their energy needs through the partial breakdown of glucose that can occur in the absence of oxygen. This modified form of cell respiration, called fermentation, results in such end products as ethyl alcohol (C_2H_6O), methane gas (CH_4), and acetic acid ($C_2H_4O_2$). The commercial production of these compounds is achieved by growing the particular organism on suitable organic matter in a vessel without oxygen. In nature, anaerobic or oxygen-free, environments commonly exist in the sediments of lakes, marshes, or swamps and in the guts of animals where oxygen does not penetrate readily. Methane gas in usually produced in these places.