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Course: Chem 102

→ Two major classification of alcohols and their examples are:

a) Classification based on the number of hydroxyl group they possess.

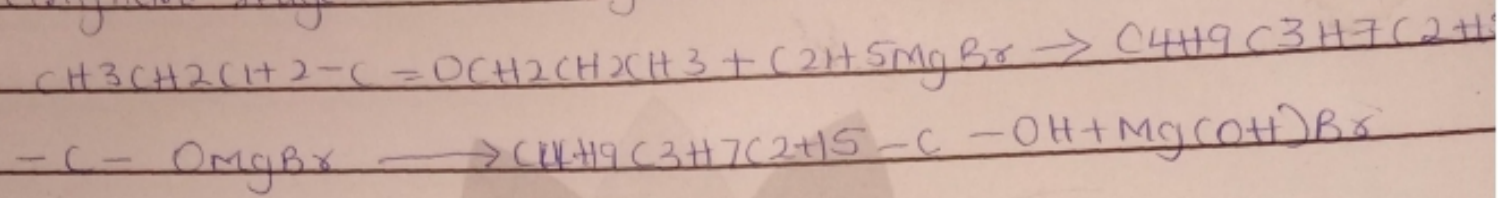
Two examples are Monohydric alcohol and polyhydric alcohol

b) Classification based on the number of hydrogen atoms attached to the carbon atom containing the OH group.

Two examples are Methanol and Propanol

2. Grignard synthesis of Alcohols

Grignard reagent $-C_2H_5MgBr$



3 Industrial manufacture of Ethanol

Carbohydrates such as starch are major group of natural compounds

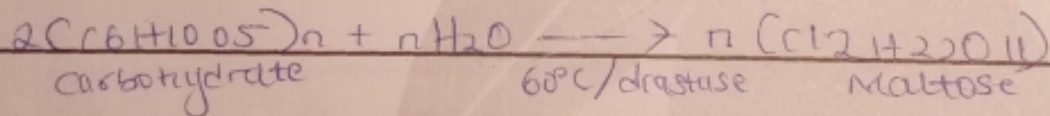
that can be made to yield ethanol by the biological process of fermentation.

The biological catalysts, enzymes found in yeast break down the carbohydrate

molecules into ethanol to give a yield of 95%. On incubating starch at

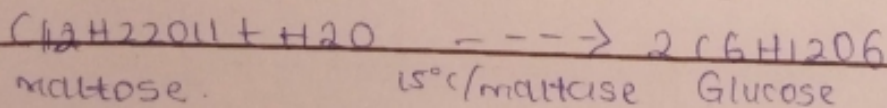
malt to 60° for a specific period of time are converted into maltose by the

diastase contained in malt.

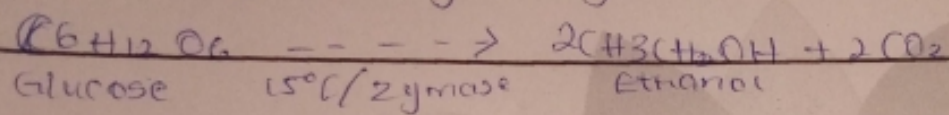


The maltose is broken down into glucose on addition of yeast extract

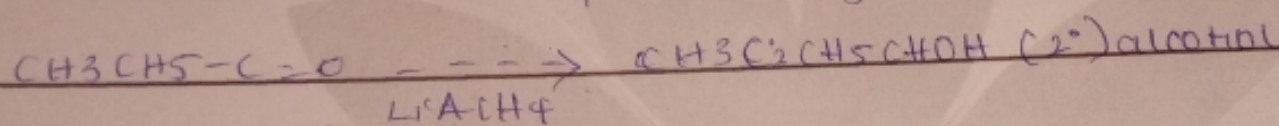
and the enzyme maltase and at a temperature of 15°



The glucose at constant temperature of 15°C is then converted into alcohol by the enzyme zymase contained also in yeast.



4. Alkanone Reduction of alkanone gives secondary alcohols



Alkanals Reduction of alkanals gives primary alcohols

