

Cellular chemistry – Reference Summary

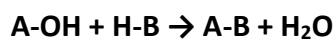
Anabolism vs. Catabolism

Anabolism is a form of metabolism that consumes energy and by which covalent bonds are formed.

Catabolism is a form of metabolism that produces energy and by which covalent bonds are broken.

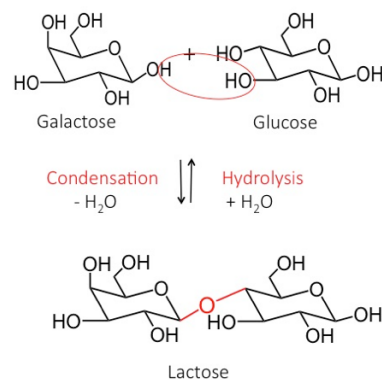
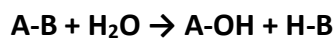
Condensation Reactions

A condensation reaction is one that forms covalent bonds and produces water as a product. These reactions are anabolic.



Hydrolysis Reactions

Hydrolysis reactions break covalent bonds by consuming a water molecule and dividing its atoms between separate molecules. These reactions are catabolic.



Usually (although not always) anabolic reactions require energy inputs while energy is released during catabolic reactions.