The agriculture biomass has a wide energy potential. The most frequently applied thermochemical technologies for biomass converting into energy or chemicals are combustion, pyrolysis, gasification and high-pressure liquefaction.

Pyrolysis is thermochemical process which relies to decomposition of biomass in absence of additional agents like oxygen or with very limited supply. The temperature range of biomass pyrolysis is 300 – 650 °C. 

$$C_{n}H_{m}O_{p} \text{(biomass)} \rightarrow \sum \text{liquid}C_{x}H_{y}O_{z} + \sum \text{gas}C_{x}H_{y}O_{z} + C_{(\text{char})}$$

Pyrolysis is thermochemical process which relies to decomposition of biomass in absence of additional agents like oxygen or with very limited supply. The temperature range of biomass pyrolysis is 300 – 650 °C. A general reaction for pyrolysis process can be presented according to the following scheme: The main purpose of gasification process is conversion of feedstock (solid or liquid) into gaseous fuel as well as into chemical feedstock which can be a source of energy during combustion. Gaseous products contain energy packed into chemical bonds. The presence of gasifying medium, like air, oxygen or steam, is required to carry out the process. Agent allows to convert heavier hydrocarbons into low-molecular-weight gases (for example CO and H2).

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