

Catalytic pyrolysis of biomass using bubbling fluidized bed

박영권*, 박현주, 명소영, 전종기¹, 유경선²
서울시립대학교 환경공학부; ¹동양대학교 생명화학공학과;
²광운대학교 환경공학과
(catalica@uos.ac.kr*)

Bio-oils obtained by pyrolysis of biomass, which is a renewable, CO₂ neutral energy resource, can not be directly used as regular fuels due to their poor heating value, high viscosity, corrosiveness and instability. Catalytic pyrolysis of biomass using bubbling fluidized bed, therefore, was carried out with different catalysts(HZSM-5, HY) to obtain lighter hydrocarbons in gasoline-range. The product yields(oil, gas, char) of non-catalytic and catalytic pyrolysis were compared respectively. Also, the products were characterized with GC, GC-MS, Elemental Analyzer and FT-IR.