

Gasification in fluidized bed is well-known for converting solid fuel to gaseous fuel. Most of research projects in Thailand have been aimed at seeking an appropriate condition in gas production. This research, however, was oriented towards the investigation into interior process of gas furnace, zone division between oxidization and reduction, reactions along bed height.

Conditions investigated in this research were wood charcoal diameter size 4-6 mm, feed rate 100-260 g/min, temperature 800-1100 °C, bed height 50 cm, and air flow rate 0.28-0.36 m³/min. Temperature and gas compositions at positions at 5, 10, 15, 20, 30, 40 and 50 cm from distributor were detected and analyzed.

From gas composition at different heights, it was found that the bed could be divided into 2 zones; oxidation zone and reduction zone. The level of these zones depends on the variation of air flow rate and charcoal feed rate. Therefore the positions of these zones must be stated together with wood charcoal flow rate and air flow rate.

ภาควิชา เคมีเทคนิค
สาขาวิชา เคมีเทคนิค
ปีการศึกษา 2533

ลายมือชื่อนิสิต 2533
ลายมือชื่ออาจารย์ที่ปรึกษา
ลายมือชื่ออาจารย์ที่ปรึกษาร่วม 2533