

Conversion of Tropical Wood to Bio-oil and Charcoal by Using the Process of Pyrolysis

Authors : Kittiphop Promdee, Somruedee Satitkune, Chakkrich Boonmee, Tharapong Vitidsant

Abstract : Conversion of tropical wood using the process of pyrolysis, which converts tropical wood into fuel products, i.e. bio-oil and charcoal. The results showed the high thermal in the reactor core was thermally controlled between 0-600°C within 60 minutes. The products yield calculation showed that the liquid yield obtained from tropical wood was at its highest at 39.42 %, at 600°C, indicating that the tropical wood had received good yields because of a low gas yield average and high solid and liquid yield average. This research is not only concerned with the controlled temperatures, but also with the controlled screw rotating and feeding rate of biomass.

Keywords : pyrolysis, tropical wood, bio-oil, charcoal, heating value, SEM

Conference Title : ICEES 2016 : International Conference on Energy and Environmental Sciences

Conference Location : London, United Kingdom

Conference Dates : January 18-19, 2016