



Contribution ID: 65

Type: Poster

## Production and Ratio Analysis for The Production of Charcoal Briquettes from Bamboo(*Dendrocalamus Asper Backer*)

*Thursday, 25 May 2017 17:45 (15 minutes)*

The bamboo is highest growth rate plant in the world. Bamboo can grow 10 cm. in the days. Moreover it is environmental friendly and easy to regrow. Research studies founded spicy with high energy, drought resistance, can withstand flooding and suitable for growing in Thailand is '*Dendrocalamus Asper Backer* Bamboo'

The purposes of this study were found the best ratio of fuel briquettes from *Dendrocalamus Asper Backer* Bamboo to investigate and compare briquettes with other biomass fuel about heat rate, time and strength. This project was experimental and qualitative research with ratio of charcoal powder and cassava powder in 100:0, 95:5, 90:10, 85:15, 80:20, 60:40, 50:50. And compress together to briquettes in pentagon shape size 5cm. width diameter x 5cm. length and center hole is 1cm. diameter. So data was analyzed using 3 prices of each ratio to boil water in 1000ml. and record temperature by computer. After that, Choose 3 ratio for analyzed with Thermal Gravimetric Analyzser (TGA) and physical test machine for accurate results.

The results of the study were as follows the best ratio of charcoal from *Dendrocalamus Asper Backer* Bamboo power and cassava powder to briquettes is 85:15

**Primary author:** Mr LUKMUANG, Ratchatapong

**Co-authors:** Dr NGAMRUNGROJ, Dusit; Dr DASAARD, Chalerm Sak

**Presenter:** Mr LUKMUANG, Ratchatapong

**Session Classification:** Poster Presentation II

**Track Classification:** Environmental Physics, Atmospheric Physics, Geophysics and Renewable Energy