Kontee Kummun 2006: The Possibility in The Energy View to Use The Rubber Dust as The Renewable Energy. Master of Engineering (Industrial Production Technology), Major Field: Industrial Production Technology, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Chatchapol Chungchoo, Ph.D. 151 pages.
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Currently, the high energy cost is effect to increase production cost. Tires are an interesting choice as a renewable fuel. This thesis has 2 purposes. The first purpose is to study energy discharge and heating value of rubber dust (making from tires) as well as the mixing of rubber dust and coal (lignite) by bomb calorimeter. The second is to study the possibility of the use of rubber as the renewable fuel for industry. The experimental results indicated that the discharge and the heating value of rubber dust by fine grinding at 2,900 rpm, rough grinding at 2,900 rpm and files weren't significance(7,246 7,010 and 7,185 kcal/kg by sequence). However, the results also showed that the energy discharge and the heating value of the rubber dust, the low smell/smoke rubber dust and coal is 7,246 5,594 and 3,718 kcal/kg respectively. Furthermore, rubber dust property was highly possible to use as the renewable fuel in spreader stokers, water-cooled vibrating-grate stokers, chain grate and traveling grate stokers and fluidized bed combustor.

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