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Renewable Energy From Rice Husk

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Abstract: The development of bioethanol gel with new types and characteristics is very important to continue to be developed because there are still a lot of fuel is not renewable and have environmental impacts. This study has the objective to study the optimization of bioethanol gel from rice husk biomass by adding various types of materials as an alternative thickening gel bioethanol process effective and environmentally friendly. This is because rice husk is one of the waste that can be used as an alternative energy with a fairly high cellulose content. In this study the variable changes that are used include the type of thickener and the weight ratio of thickener to the media while the fixed variable is rice husk. Stages of the research carried out is phase thickening process with various types of thickeners to produce bioethanol gel that is practical and environmentally friendly as well as the design of the equipment. Products analyzed calorific value and long burning and exhaust gas emissions. Interest in the future of this research is to produce bioethanol gel as renewable energy (renewable energy) that can be applied to society. From the results obtained, bioethanol gel resulting from the type of thickener Carbopol 940 has a high calorific value that is equal to 8522.52 kcal / kg, with the value of its CO emissions amounted to 0.009% of the volume of air in the open spaces, the flame obtained longest and blue with time 23 minutes 31 seconds.

Keywords: alternative fuels, cellulose, ethanol gel, rice husk.

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