

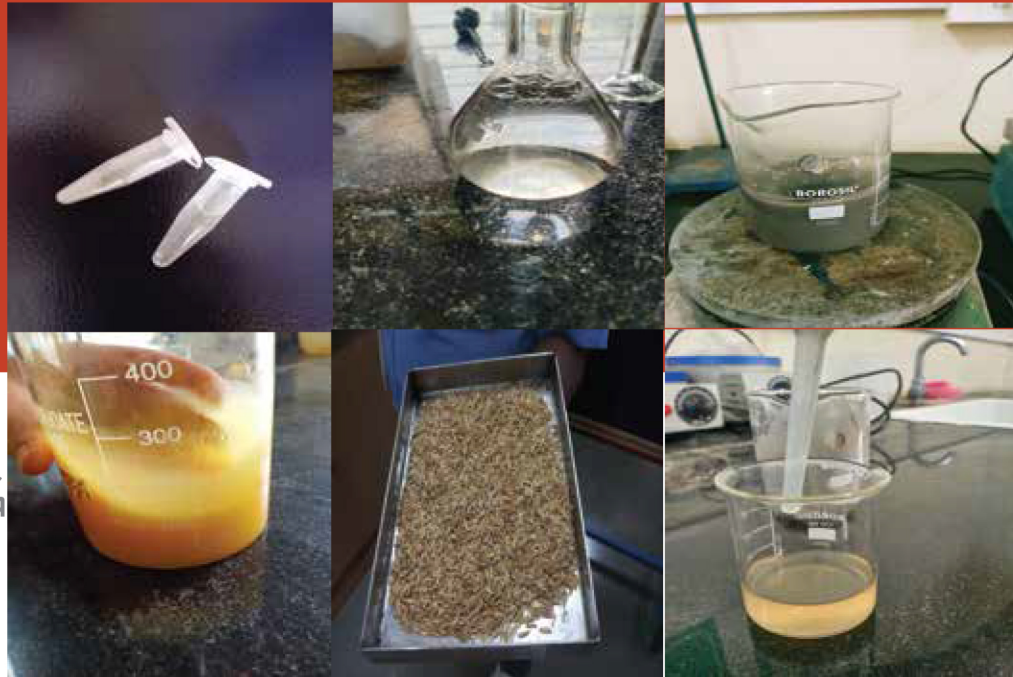
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09 PROJECT

SOAP MANUFACTURING FROM RICE HUSK



Globally, on an average, every year 600 million tons of paddy husk and 120 million tons of rice husk are produced. Industries use this husk in fuel and power generation. Disposal of the ash from industries will cause environmental pollution and pose health hazards. Rather than disposing the produced ash, it is used in many fields like cement, concrete, ceramics, manufacture of soap and detergent etc.

Generally, sodium silicate is extracted from sand - it is a non-renewable form of energy resource and causes itching and irritation of the skin and eye when it is used in soaps and detergents. Using eco-friendly and economical sodium silicate is our aim. Therefore, rice husk ash (RHA) is treated with aqueous sodium hydroxide which results in the formation of sodium silicate. On acidification, the sodium silicate that is formed is precipitated as silicate, which is added to laundry soap bars and detergents as surfactant. It makes the soap last longer and prevents it from rapid drying. It also acts as a foam producing agent, both in soft and hard water. Our work will explore the possible way to manufacture ecofriendly and cost-effective soap.