







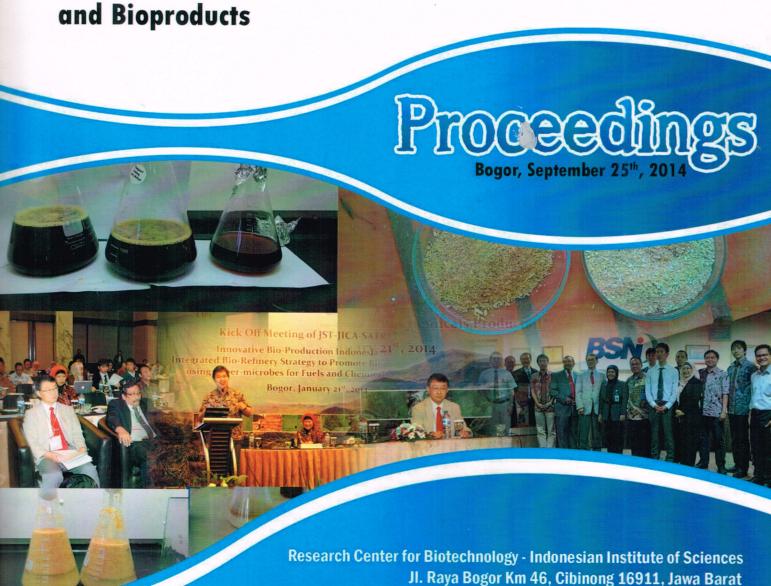


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1st International Symposium on Integrated Biorefinery (ISIBio) 2014: **Utilization of Biomass and Biodiversity of Microbes** for The Production of Biofuels



The Potential of Biorefinery Development in West Sumatra

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Abstract—A biorefinery is a facility that integrates biomass conversion processes and equipment to produce value-added products such as fuels, chemicals, feed, pharmaceuticals, materials and energy from biomass. The objective of a biorefinery is to optimize the use of resources and minimize wastes, thereby maximizing benefits and profitability, enhancing the energy efficiency and material recovery. Biorefineries consist of various processing facilities such as digestion, fermentation, pyrolysis, gasification, etc. This work presents a potential of bioenergy development in West Sumatra based on the availability of raw material for feedstocks such oil palm, cacao, gambier, rice, forest waste, etc. Key challenges in developing biorefinery commercialization is also reviewed.