



Book of Abstracts

ICASMI

3rd International
Conference on
Applied Science
Mathematics
and Informatics



“Natural Sciences,
Mathematics and Informatics in
Industri Revolution (IR) 4.0 Toward
The Sustainable Development Goals
(SGDs)”

2020

Faculty of Mathematics and Natural Sciences
University of Lampung

Introduction

The 3rd International Conference on Applied Science,
Mathematics, and Informatics (ICASMI)

Bandar Lampung, 3-4 September 2020

Faculty of Mathematics and Natural Sciences, University of Lampung (FMIPA, UNILA) is honored and proud to organize the 3rd International Conference on Applied Science, Mathematics, and Informatics (ICASMI). The theme of the conference is theme "Natural Sciences, Mathematics and Informatics in the Industrial Revolution (IR) 4.0 toward the Sustainable Development Goals (SDGs)."

ICASMI is a biennial event with the aims to bring together international and local scientists, researchers, academicians, also students for sharing their research, exchanging ideas, networking, opening collaboration research. Even in the covid19 pandemic, ICASMI is still held this year. This year, all conference will be held online.

The Keynote speakers are competent in their filed of study. They come from different countries, such as, Japan, Malaysia, Turkey and Indonesia. This conference will provide an opportunity for presenters to present their

current research and results, and also for participants to learn up-to-date topics and researches in their field of study.

Best wishes and we welcome you to the 3rd ICASMI held in Bandar Lampung, Indonesia.

Organized by

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Synthesis of Zeolite-Y from Rice Husk Silica and Food Grade Aluminium Foil Using Modified Hydrothermal Method

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ABSTRACT

In this investigation, zeolite-Y prepared from rice husk silica (RHS) and food grade aluminium foil using modified hydrothermal method. In this proposed method, rice husk silica was dissolved in NaOH solution to obtain sodium silicate solution and then small pieces of aluminium foil were directly mixed with silicate solution, producing zeolite precursor in the form of gel. The gel was transferred into PTFE lined autoclave and aged for 24 hours and subsequently subjected to the crystallization process for 24, 48, 72, 96, and 120 hours at fixed temperature of 100oC. The solid product was washed with distilled water and dried in oven at 80oC and calcined at 550oC for 6 hours. Characterization using XRD and SEM confirm the formation of zeolite-Y, and showed that crystallization time influenced both structure and surface morphology of the zeolites quite significantly.

keyword : Zeolite-Y, rice husk silica, food grade aluminium foil, hydrothermal method, PTFE lined autoclave.