

INTRODUCTION

**First International Conference on Applied Sciences, Mathematics and Informatics
1st ICASMI 2017
13-15 July 2017**

Faculty of Mathematics and Natural Sciences, University of Lampung (FMIPA, UNILA) is honored to organize the 1st international conference on Applied Sciences, Mathematics and Informatics (1st ICASMI 2017) which is sponsored by FMIPA-UNILA.

ICASMI is a biennial event with the aims to bring together scientists, academicians, students from around the country and from around the world for exchange the ideas, knowledge sharing, networking, research collaboration and present research results on applied sciences, mathematics and informatics.

The conference will provide an opportunity for the presenters as an arena to exchange ideas, to establish networking and research collaboration, and to build up friendship. The conference will present some keynote speakers from Germany, Malaysia, Qatar, Japan and Indonesia, and oral presentation of the accepted papers.

Good Luck and we welcome you to ICASMI2017 in Bandar Lampung, INDONESIA

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samples of non-luwak coffee were acquired using a UV-Vis spectrometer in transmittance mode. The results show that UV-Vis spectroscopy combined with LDA and SVM was effective method to classify luwak and non-luwak coffee samples. The classification result was acceptable and yielded more than 90% classification accuracy for both LDA and SVM methods.

Keywords: Luwak coffee, authentication, adulteration, linear discriminant analysis, support vector machines, UV-Vis spectroscopy.

7. **Co-Pyrolysis of Sugarcane Bagasse and Castor Oil Using Aluminosilicates with Different Si/Al Ratios as Catalyst.**

Endah Pratiwi^{1,a}, Wasinton Simanjuntak^{2,b,*}, Simon Sembiring^{3,c}, Zipora Sembiring^{2,d}, and Kamisah D. Pandiangan^{2,e}

¹ Postgraduate student at Department of Chemistry, The Faculty of Mathematics and Natural Science, The University of Lampung, Bandar Lampung, Indonesia

² Department of Chemistry, The Faculty of Mathematics and Natural Science, The University of Lampung, Bandar Lampung, Indonesia

³ Department of Physic, The Faculty of Mathematics and Natural Science, The University of Lampung, Bandar Lampung, Indonesia

^aendahpratiwi1117011016@yahoo.com, ^bwasinton.simanjuntak@fmipa.unila.ac.id, ^csimonsembiring2@gmail.com, ^dtoens@telkom.net,

^ekamisahdelilawati@yahoo.com,

Abstract. In this investigation, a mixture of sugarcane bagasse and castor oil was subjected to pyrolysis for liquid fuel production. The pyrolysis process was carried out using aluminosilicates with different Si/Al ratios of 7, 5, 4, 3, and 1 as catalyst, with the main objective to investigate the effect of the Si/Al ratios of the catalyst on the hydrocarbon content of liquid produced. The experimental results show that production of liquid was achieved at the temperature range of 330 to 440 °C, and the liquid fuels produced were analyzed using gas chromatography-mass spectrometry (GC-MS) technique for component identification. Analysis of the product using GC-MS technique revealed the presence of a series of compounds in the liquids, and broadly belongs to hydrocarbon, alcohol, ester, ketone, aldehyde, and acid. The results display significant effect of the catalyst composition on the composition of the liquid, the hydrocarbon contents in particular, in which the smaller the Si/Al ratio, the higher the hydrocarbon content of the liquid, with the highest content of 67.8%.

Keywords: Liquid fuel, pyrolysis, sugarcane bagasse, castor oil, aluminosilicate.