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

Organized by Faculty of Mathematics and Natural Sciences (FMIPA) UNILA

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using rietveld method and crystalline size using scherrer equation. The results showed that crystalline phase of Ni $_{1\text{-}x}\text{Fe}_2\text{Cu}_x\text{O}_4$ increased as Cu content augmounted, from 43,9 to 87,4 % and its crystalline size as well, from 5,8 to 8,7 nm.

Keywords: Nanomaterial, sol gel, freeze-drying, spinel

22. The Antimalarial Activity of Some Organotin(IV) benzoate against *Plasmodiun falcifarum*

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Abstract. The strong biological activity of organotin(IV) carboxylate and its derivatives have long been known, and most of them are active even at very low concentration making these compounds continue to attract more attention to be explored. In this paper, we report the antimalarial activity of some organotin(IV) benzoate compounds following and continuing our success in the syntheses and activity studies of some organotin(IV) carboxylates in our previous investigation, the initial study of antimalarial activity of two compounds, i.e. diphenyltin(IV) dibenzoate and triphenyltin(IV) benzoate were performed. The targeted compounds were prepared from their organotin(IV) chlorides via the intermediate products of diphenyltin(IV) dihydroxide and triphenyltin(IV) hydroxide, respectively and reacting the intermediate products with benzoic acid. The antimalarial activity was performed against *Plasmodium falcifarum*. The results indicate that the triphenyltin(IV) compound is more potent to be used as antimalaria and has potential to be developed as antimalarial drug in the near future.

Keywords: antimalarial, inhibition concentration, organotin(IV) benzoates, P. Falcifarum

23. Chemical Composition of Liquid Fuel Produced By Co-pyrolysis of Sugarcane Bagasse and Rubber Seed Oil Using Zeolite-Y Synthesized From Rice Husk Silica and Aluminum Metal as Catalyst.

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Abstract. In this investigation, a mixture of sugarcane bagasse and rubber seed oil was subjected to pyrolysis for liquid fuel production. A series of pyrolysis experiments was conducted using zeolite-A synthesized from rice husk silica and aluminum metal through sol-gel route as catalyst, with the main objective to investigate the effect of calcination temperatures on the chemical composition of the liquid fuel obtained. The pyrolysis experiments were conducted at the temperature range of 250 to 500 °C, and the liquid fuels produced were analyzed using gas chromatography-mass spectrometry (GC-MS) technique for component identification. The experimental results show that optimum production of liquid took place at the temperature range of 350 to 480 °C, while at lower temperatures gaseous product emerged as the main product. 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 calcination temperatures on the composition of the liquid, the hydrocarbon contents in particular, in which the higher the calcination temperature, the lower the hydrocarbon content. The liquid fuel with the highest hydrocarbon content of 85% was obtained using the catalyst calcined at 700 °C.

Keywords: Liquid fuel, pyrolysis, bagasse, rubber seed oil, zeolite

24. Utilization of Resin SAP Jernang (*Daemonorops sp*) as the Basic ngredients ff the Drug Wound Liquid

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Abstract. Jernang (*Daemonorops sp*) produces fruit where the fruit contains resin from the SAP of the fruit jernang. Jernang (*Deamonorops sp*) is a rattan plant having economic value and has been used as traditional medicine in Indonesia and China. Besides being beneficial to the drug, resin SAP jernang is used to make drugs, the SAP nutritious jernang can dispel blood static, reduce pain (relieve pain), injury due to trauma fractures (traumatic injuries causing fracture) cure bruises, veins (sprains) stop bleeding due to injuries (bruising and stops bleeding) protects the surface wounds festering rot, regenerate living tissue (kind of flesh), and eliminate the sense of poignant on chronic wounds (chronic non-healing sores). The characterization of compounds using UV-vis spectroscopy and FTIR, and the results of the measurements gave data as follows: brownish yellow crystall, melting point 243-246°C; IR (KBr) υ (cm⁻¹) 3425 (OH); 2924, and 2852 (C-H); 1739, 1703 and 1660) (benzene); 1577, 1462 and 1379 (C = C aromatic); 1238, 1163, 1111 and 1029 (C = O aromatic); and 669.30 (O-H of carboxylic