

Analysis of Liquid Smoke Chemical Components with GC MS from Different Raw Materials Variation Production and Pyrolysis Temperature level

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Abstract : This study aims to determine chemical components of liquid smoke obtained from pyrolysis from various raw materials (coconut fiber, coconut shells, cinnamon) with different pyrolysis levels on temperature of $100\pm 10^{\circ}\text{C}$; $200\pm 10^{\circ}\text{C}$; $300\pm 10^{\circ}\text{C}$; and $400\pm 10^{\circ}\text{C}$. This research is performed experimentally by measuring the chemical components using GC-MS. The measured parameter are the chemical components of liquid smoke. The results of research shows that the combination of raw materials with different pyrolysis temperature affects the content of chemical compounds in liquid smoke. Acetic acid and phenol are the most dominant compound of all liquid smoke samples, liquid smoke of coconut shell raw materials at pyrolysis temperature of 100°C has the highest chemical component of acetic acid and phenol at 62.20% and 22.26%. Furthermore, on cinnamon raw material at different pyrolysis temperature shows results that there are lots of chemical components and the measuring result of liquid smoke using GC-MS also shows that chemical component of cinnamon liquid smoke at pyrolysis temperature of 100°C , 200°C , 300°C and 400°C has different chemical component area with liquid smoke of coconut fiber and coconut shell.

Key words: chemical components, raw material, temperature, liquid smoke, chemical components, GC MS.

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