

# **Hydrogenolysis of Empty Fruit Bunch Over Cerium Supported Mesoporous Silica Catalyst**

## **ABSTRACT**

Hydrogenolysis of EFB into hydrocarbon and phenolic compounds were successfully carried out at different reaction pressure using acid catalyst of 10Ce-MeSiC. From the GC-MS analysis it showed the main composition of hydrogenolysis of lignin was phenol. However, increasing the reaction pressure to 12 bars, increased the selectivity of hydrocarbon with value 23.31% while the phenol conversion was 26.50%. Cyclopentadecane hydrocarbon appears as a main composition in alicyclic hydrocarbon. While, phenol, 2-methoxy- and phenol, 2,6-dimethoxy- was appears as a phenol derivatives compound.