

[In-Situ Catalytic Pyrolysis of Dealkaline Lignin Over MMZ-H \$\beta\$](#)

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J. Nanosci. Nanotechnol. 17 (2017) 2760-2763

Abstract:

In-Situ catalytic pyrolysis of dealkaline lignin (DL) over MMZ-H β was performed using a pyrolyzergas chromatography/mass spectroscopy for the first time. Non-catalytic pyrolysis of DL mainly produced large amounts of phenolics such as mono-phenol, alkylphenols, guaiacols, eugenols, and vanillin. By applying MMZ-H β , the amounts of these phenolics were dramatically decreased with the increase of aromatics such as benzene, toluene, ethylbenzene, xylenes, and naphthalenes. The higher conversion efficiency from phenolics to aromatics was obtained by increasing the catalyst to DL ratio from 1/1 to 5/1.

* Excerpted from online journal website (Click the title)

Frontier Labs Products used:

Multi-Shot Pyrolyzer (EGA/PY-3030D), UA-1