

### Study on Extraction of Lignin by organic Solvent and Antibiosis Evaluation of low-molecular Lignin by Nitrobenzene Oxidation

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Plant biomass is an important resource for energy, food and useful chemicals due to its abundance in nature and its renewable character.

Especially, Lignin is an amorphous aromatic biopolymer that provides rigidity to plant fibers. Cellulose fibers mainly consist of cellulose microfibrils bound together by amorphous lignin matrix. Lignin is one of the principal constituents of wood (around 25%) and is the second most abundant natural polymer after cellulose.

Lignin from wood powder by extraction with ether of the lignin nitrobenzene oxidation was decomposed into low-molecular lignin. Lignin, the molecular weight of each antibiosis was evaluated by category. The lower molecular weight were able to confirm antibiosis improved.