Agenda

Steam Explosion

“Manufacturing of Process-ready Bio-based Assortments through Novel Development of Steam Explosion Process”

Discussion
What is steam explosion?

A thermal treatment process followed by mechanical defibration

- Old well known "Masonite" process
- Continuous operation advantage
- Steam heating of a ligno-cellulosic material followed by rapid depressurization
- Hemicelluloses decompose and lignin is softened
- Excellent material for pelleting

![Diagram of steam explosion process](https://example.com/steam-explosion-diagram)
Steam exploded black pellets

New opportunity for supply of sustainable fuel for heat and power generation

- They can be produced from all ligno-cellulosic materials
- Adaptations of well established technology
- Bark and wood residues are interesting raw materials
- The pellets are durable and more moisture resistant than white pellets
- Steam explosion treatment lowers CAPEX and OPEX in pellet logistics
Manufacturing of Process-ready Bio-based Assortments through Novel Development of Steam Explosion Process

- Steam explosion
- Carbocation scavengers
- Cyclone separation
- Pelleting
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