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System analysis of pulping process coupled with supercritical water gasification of black liquor for combined hydrogen, heat and power production



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## Highlights:

-The integrated system of pulping process and SCWG of black liquor was simulated

-The separator parameters were optimized by calculating the phase equilibrium

-Both process using air and oxygen as oxidant in gas combustion were compared

-The mass and energy flow of the integrated system was obtained

-The total energy consumption of pulp production in the form of kgce was obtained

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