

Supplementary material

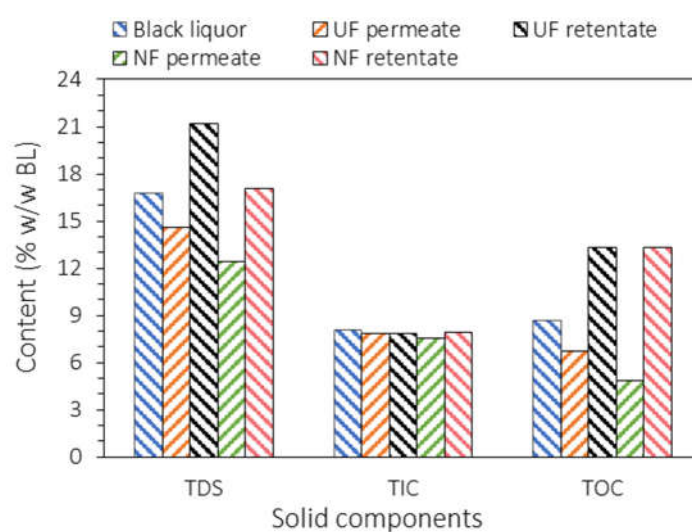
# Lignin Recovery from Black Liquor Using Integrated UF/NF Processes and Economic Analysis

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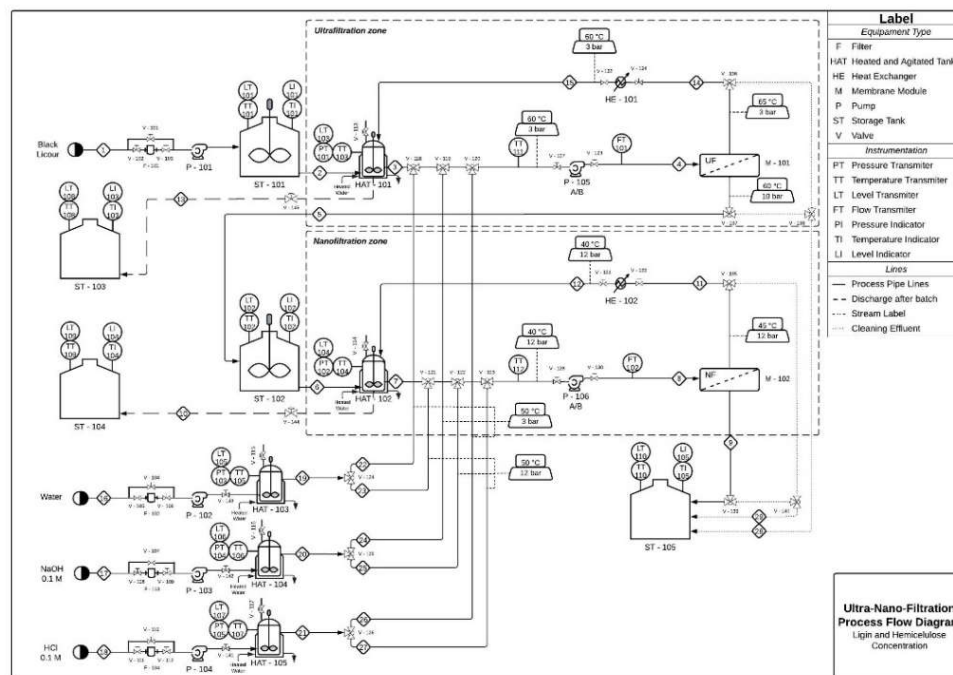
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## 1. Composition of black liquor samples



**Figure S1.** Composition of kraft black liquor samples observed before filtration and after UF and NF processes.

## 2. Proposed process flow diagram for integrated UF/NF process



**Figure S2.** Process flow diagram for integrated UF/NF process implemented for separation of hem-celluloses and lignin from black liquor.