

## Abstract

The present invention describes a process involving liquefaction of a biomass slurry by treatment in hot compressed water (HCW), said process comprising:

- a first decomposition step being performed at an average pH level of at most 4.5, wherein a hemicellulose fraction in the biomass slurry is decomposed to water soluble mono- and/or oligomers, and wherein a cellulose fraction
- 10 undergoes a pre-treatment for decrystallization of the cellulose polymer;
- a separation step; and
- a second decomposition step, wherein the cellulose fraction in the biomass slurry is decomposed to water soluble mono- and/or oligomers;

wherein both of the first and second decomposition steps are performed at

15 sub-critical temperatures implying relatively moderate conditions.