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(54) Title (EN): ORGANIC SOLVENT PRETREATMENT OF BIOMASS TO ENHANCE ENZYMATIC SACCHARIFICATION

(54) Title (FR): PRÉ-TRAITEMENT DE BIOMASSE PAR UN SOLVANT ORGANIQUE POUR AMÉLIORER LA SACCHARIFICATION ENZYMATIQUE

(57) Abstract:

(EN): Biomass is pretreated using an organic solvent solution under alkaline conditions in the presence of ammonia and optionally an additional nucleophile to fragment and extract lignin without loss of hemicellulose. Pretreated biomass is further hydrolyzed with a saccharification enzyme consortium. Fermentable sugars released by saccharification may be utilized for the production of target chemicals by fermentation.

(FR): De la biomasse est pré-traitée par une solution de solvant organique dans des conditions basiques en présence d'ammoniac et éventuellement d'un nucléophile supplémentaire pour fragmenter et extraire la lignine sans perte d'hémicellulose. La biomasse pré-traitée est hydrolysée plus avant par un complexe enzymatique de saccharification. Les sucres fermentables libérés par la saccharification peuvent être employés dans la production de produits chimiques ciblés par fermentation.

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