عنوان مقاله:

Hydrothermal Conversion of Woody Biomass and Agricultural Residues to High Yield Pure Sugar as Biofuel Feedstock

محل انتشار:

کنفرانس ملی چشم انداز ۱۴۰۴ و پیشرفتهای تکنولوژیک علوم مهندسی (سال: 1394)

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نویسندگان:

Mohsen Sheikholeslami - Ph.D., Department of Wood Science and Technology, Faculty of Civil Engineering, Shahid Rajaee Teacher Training University

Ali Akbar Enayati - Professor, Department of Wood and Paper sciences and Technology, Faculty of Natural Resources, University of Tehran

خلاصه مقاله:

Subjecting small size of wood and agroindustries wastes to the sub (100-370 °C) and supercritical (370°C <) condition of water, intensify the hydrolysis reactions of their primary lignocellulosic materials to the useful target chemicals specially, mono saccharides as biofuel feedstock. A series of sequence centrifugation, micro and nanofiltration and reverse osmosis filtration executed on diluted distilled steam water at the end of each process treatment, to separate the condensed sugars from any other chemicals. Resulted refine sugar solutions were analyzed for oligo and monosaccharides by chromatography. The maximum production yield achieves during the combined supercritical .and then subcritical water treatment

کلمات کلیدی:

subcritical water, supercritical water, filtration, sugar, fermentation inhibitors

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