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(54) Title: A METHOD FOR PREPARING A HOMOGENOUS CELLULOSIC PRODUCT FROM CELLULOSIC WASTE MATERIALS

(57) Abstract: A method for treating diverse pulp and paper materials, including such products contained in municipal solid waste and biohazardous wastes, to produce a homogenous cellulosic product comprises the steps of feeding diverse pulp and paper materials into a vessel, introducing steam into the vessel while agitating the materials, purging the gases from the vessel while agitating the materials, sealing the vessel so that the vessel is pressure tight, saturating the materials with steam at sufficient temperature and pressure to expand the physical and chemical structure of the materials, while agitating the materials, depressurizing the vessel to further enhance the physical and chemical expansion of the materials, and discharging the processed products. Alternatively, the method can be performed without purging the gases, if the temperature in the range of about 140 °C to about 160 °C, and the pressure is in the range of about 275 to 450 kPa. During the optional purging step, during the depressurization step, and during the optional evacuation step, volatile organic compounds and other air pollutants can be captured and treated. The temperature, pressure, and process time is more than sufficient to decontaminate and sterilize biohazardous laboratory and medical wastes.



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