

Title (en)

METHODS AND SYSTEMS FOR PROCESSING MIXED TEXTILE FEEDSTOCK, ISOLATING CONSTITUENT MOLECULES, AND REGENERATING CELLULOSIC AND POLYESTER FIBERS

Title (de)

VERFAHREN UND SYSTEME ZUR VERARBEITUNG VON GEMISCHTEM TEXTILEM ROHMATERIAL, ISOLIERUNG VON EINZELNEN MOLEKÜLEN SOWIE REGENERIERUNG VON CELLULOSE- UND POLYESTERFASERN

Title (fr)

PROCÉDÉS ET SYSTÈMES DE TRAITEMENT DE MATIÈRE PREMIÈRE TEXTILES MIXTES, ISOLEMENT DES MOLÉCULES CONSTITUANTES, ET RÉGÉNÉRATION DE FIBRES POLYESTER ET CELLULOSIQUE

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Abstract (en)

[origin: WO2017019802A1] Methods and systems of the present invention use mixed textile feedstock, which may include post-consumer waste garments, scrap fabric and/or other textile materials as a raw feed material to produce isolated cellulose and other isolated molecules having desirable properties that can be used in the textile and apparel industries, and in other industries. A multi-stage process is provided, in which mixed textile feed material is subjected to one or more pretreatment stages, followed by at least two pulping treatments for isolating cellulose molecules and other molecular constituents, such as polyester. The isolated cellulose and polyester molecules may be used in a variety of downstream applications. In one application, isolated cellulose and polyester molecules are extruded to provide regenerated cellulose fibers and regenerated polyester fibers having desirable (and selectable) properties that are usable in various industrial applications, including textile production.

IPC 8 full level

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