

Title (en)
Multicomponent Aliphatic Polyester Fibers

Title (de)
Multikomponenten Aliphatische-Polyester Fasern

Title (fr)
Les fibres multicomponents de polyester aliphatique

Publication
EP 2918709 A1 20150916 (EN)

Application
EP 14184730 A 20140915

Priority
US 201414208890 A 20140313

Abstract (en)
The present invention provides multicomponent thermoplastic fibers that are biodegradable and that are capable of forming strong bonds in air bonding processes. In various embodiments, the multicomponent fibers can include a first polymer component that includes a first aliphatic polyester, and a second polymer component also including an aliphatic polyester, wherein the first polymer component comprises at least a portion of an exposed surface of the multicomponent fiber. The first polymer component can be a fully amorphous polylactic acid and the second polymer component can be a semicrystalline polylactic acid.

IPC 8 full level
D01F 1/10 (2006.01); **D01F 8/14** (2006.01); **D03D 15/292** (2021.01); **D04H 1/55** (2012.01)

CPC (source: EP)
D01F 1/10 (2013.01); **D01F 8/14** (2013.01); **D04H 3/147** (2013.01); **D04H 3/16** (2013.01)

Citation (applicant)

- US 5166231 A 19921124 - LEE HAIBANG [KR], et al
- US 5506041 A 19960409 - TANAKA HIROSHI [JP], et al
- US 5759569 A 19980602 - HIRD BRYN [US], et al
- US 5171309 A 19921215 - GALLAGHER FRANCIS G [US], et al
- US 6177193 B1 20010123 - TSAI FU-JYA DANIEL [US], et al
- US 6441267 B1 20020827 - DUGAN JEFFREY S [US]
- US 6953622 B2 20051011 - TSAI FU-JYA DANIEL [US], et al
- US 7338877 B1 20080304 - MEYER AUGUST KARL [US], et al
- US 5142023 A 19920825 - GRUBER PATRICK R [US], et al
- US 5807973 A 19980915 - GRUBER PATRICK RICHARD [US], et al
- US 5010145 A 19910423 - IKADA YOSHITO [JP], et al
- US 5760144 A 19980602 - OZEKI EIICHI [JP], et al
- US 5698322 A 19971216 - TSAI FU-JYA [US], et al
- US 5593778 A 19970114 - KONDO YOSHIKAZU [JP], et al
- US 5082899 A 19920121 - SAWYER LAWRENCE H [US], et al
- US 4789592 A 19881206 - TANIGUCHI MASAHICO [JP], et al
- US 5336552 A 19940809 - STRACK DAVID C [US], et al
- US 3987185 A 19761019 - BARE THOMAS M, et al
- US 3972759 A 19760803 - BUNTIN ROBERT R
- US 4622259 A 19861111 - MCAMISH LARRY H [US], et al

Citation (search report)

- [XDI] US 5593778 A 19970114 - KONDO YOSHIKAZU [JP], et al
- [XI] US 2008057309 A1 20080306 - LIU TSUNG-HUNG [TW], et al
- [XI] US 7989062 B2 20110802 - CHAKRAVARTY JAYANT [US], et al
- [XI] US 6322887 B1 20011127 - MATSUI MASAO [JP], et al
- [XI] US 2010221471 A1 20100902 - GREEN ROBERT A [US], et al

Cited by
CN115161876A; US11441251B2; US10590577B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2918709 A1 20150916; CN 104911744 A 20150916

DOCDB simple family (application)
EP 14184730 A 20140915; CN 201410588149 A 20140822