

Title (en)

METHODS OF RECYCLING SUBSTRATES AND CARRIER SUBSTRATES

Title (de)

VERFAHREN ZUM RECYCLING VON SUBSTRATEN UND TRÄGERSUBSTRATEN

Title (fr)

PROCÉDÉS DE RECYCLAGE DE SUBSTRATS ET DE SUBSTRATS PORTEURS DE CHARGE

Publication

**EP 3127143 A4 20171129 (EN)**

Application

**EP 15773434 A 20150216**

Priority

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Abstract (en)

[origin: WO2015152817A1] In various embodiments, a method of recycling a carrier substrate is provided. The method comprises: providing said carrier substrate; forming a buffer layer by depositing a suitable material on the carrier substrate, forming one or more component layers over the buffer layer; separation of the one or more component layers from the carrier substrate so that at least a portion of the buffer layer remains on the carrier substrate after separation; and forming a further buffer layer from the portion of the buffer layer after the separation by depositing the suitable material to recycle the carrier substrate. Also a method of recycling a substrate is provided that comprises: forming an insulating layer on a substrate; removing a first portion of the insulating layer to expose a first portion of the substrate; forming one or more component layers over the first portion of the substrate; and separating the one or more component layers from the substrate for recycling the substrate.

IPC 8 full level

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Citation (search report)

- [X] US 2012107962 A1 20120503 - HORNG RAY-HUA [TW], et al
- [X] US 2009253249 A1 20091008 - TANIGUCHI SATOSHI [JP], et al
- [X] US 2013214284 A1 20130822 - HOLDER CASEY O [US], et al
- [A] US 2008038857 A1 20080214 - KIM KYOUNG-KOOK [KR], et al
- [A] US 2013048945 A1 20130228 - FANG KUO-LUNG [TW], et al
- See references of WO 2015152817A1

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