

Title (en)

Permanent reshaping process using a heating mechanical tensioning device

Title (de)

Verfahren zum permanenten Verformen mit einer wärmenden Spannvorrichtung

Title (fr)

Procédé de déformation permanente utilisant un dispositif de mise sous tension mécanique chauffant

Publication

**EP 2198737 B1 20170419 (FR)**

Application

**EP 09179400 A 20091216**

Priority

- US 14639609 P 20090122
- US 14451609 P 20090114
- US 14451209 P 20090114
- US 14451409 P 20090114
- FR 0858665 A 20081216
- FR 0858652 A 20081216
- FR 0858653 A 20081216
- FR 0858649 A 20081216

Abstract (en)

[origin: EP2198737A1] The method involves mechanical tensioning of keratin fibers by winding on mechanical tensioning units e.g. hair curler, to form loops, and applying reducing composition to the keratin fibers. Mechanical tensioning unit covering units e.g. plastic film, are arranged to form closed spaces above the fibers, and the fibers are heated at a constant temperature ranging between 45 and 250 degree Celsius for a duration between 1 minute and 2 hours. An oxidation fixation is carried out after removal of the covering units, where one of the tensioning units and the covering units has heating units. An independent claim is also included for a mechanical tensioning device comprising mechanical tensioning units for mechanical tensioning of keratin fibers.

IPC 8 full level

**A45D 7/06** (2006.01)

CPC (source: EP US)

**A45D 7/06** (2013.01 - EP US)

Citation (opposition)

Opponent : Kao Germany GmbH

- JP 2007097908 A 20070419 - ADVANCE KK
- JP 2005143846 A 20050609 - IKEDA TAKANORI
- JP 2008237887 A 20081009 - ADVANCE KK
- JP 2004262798 A 20040924 - MILBON CO LTD

Cited by

FR3083098A1; CN112351767A; WO2020002658A1; FR3142891A1

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DOCDB simple family (publication)

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DOCDB simple family (application)

**EP 09179400 A 20091216**; BR PI0906125 A 20091216; JP 2009285812 A 20091216; JP 2015156960 A 20150807; US 201313953071 A 20130729; US 63931709 A 20091216