Title (en)

METHOD FOR REVERSIBLE AND SELECTIVE DYEING OF A SYNTHETIC POLAR-POLYMER MATERIAL; DYED SYNTHETIC POLAR-POLYMER MATERIAL AND ARTICLE THEREOF

Title (de)

VERFAHREN ZUM REVERSIBLEN UND SELEKTIVEN FÄRBEN EINES SYNTHETISCHEN POLARPOLYMERMATERIALS, GEFÄRBTES SYNTHETISCHES POLARPOLYMERMATERIAL UND GEGENSTAND DARAUS

Title (fr)

PROCÉDÉ DE COLORATION RÉVERSIBLE ET SÉLECTIVE D'UN MATÉRIAU POLYMÈRE POLAIRE SYNTHÉTIQUE ; MATÉRIAU POLYMÈRE POLAIRE SYNTHÉTIQUE COLORÉ ET ARTICLE ASSOCIÉ

Publication

EP 4004093 A1 20220601 (EN)

Application

EP 20740349 A 20200721

Priority

- EP 19188085 A 20190724
- EP 19188098 A 20190724
- EP 2020070573 W 20200721

Abstract (en)

[origin: WO2021013849A1] The present invention is directed to a Method for decolorizing a colored synthetic and/or non-synthetic polar-polymer material, comprising the steps: exposing the colored synthetic and/or non-synthetic polar-polymer material to a polar solvent at a temperature of about ≥ 30 °C to about ≤ 200 °C, wherein the polar solvent comprises and/or is exposed to at least one polar decoloring agent for absorbing and/or adsorbing chemical modification of the color from the colored synthetic and/or non-synthetic polar-polymer material; wherein the colored synthetic and/or non- synthetic polar-polymer material to be decolorized comprises: - at least one organic aromatic coloring agent having a molecular weight Mw in the range of about ≥ 250 g/mol to about ≤ 550 g/mol, wherein the organic aromatic coloring agent is not a chemical reactive organic aromatic coloring agent that forms a chemical covalently bound; i) at least one synthetic and/or non- synthetic polar-polymer having a Mw of about ≥ 1000 g/mol, or ii) at least one synthetic and/or non- synthetic non-polar-polymer having a Mw of about ≥ 1000 g/mol; wherein the synthetic and/or non-synthetic non-polar-polymer comprises in addition: - at least one synthetic and/or non- synthetic polar-polymer having a Mw of about ≥ 1000 g/mol, and/or - at least one synthetic and/or non- synthetic polar-oligomer having a Mw of about ≥ 600 g/mol and < 1000 g/mol, and/or - at least one synthetic and/or non- synthetic polar-additive having a Mw of about ≥ 70 and < 600 g/mol; wherein the polar-additive is selected different to the organic aromatic coloring agent having a molecular weight Mw in the range of about ≥ 250 g/mol to about ≤ 550 g/mol.

IPC 8 full level

C08J 11/08 (2006.01); **C08J 7/06** (2006.01); **D06P 5/13** (2006.01)

CPC (source: EP)

C08J 11/06 (2013.01); **D06P 1/81** (2013.01); **D06P 1/90** (2013.01); **D06P 1/92** (2013.01); **D06P 5/13** (2013.01); **D06P 5/131** (2013.01); **D06P 5/132** (2013.01); **D06P 5/134** (2013.01); **D06P 5/158** (2013.01); C08J 2323/06 (2013.01); C08J 2423/08 (2013.01); C08J 2429/04 (2013.01); C08J 2453/00 (2013.01); C08J 2467/04 (2013.01); C08J 2475/04 (2013.01); C08J 2477/00 (2013.01); C08J 2477/02 (2013.01); C08J 2477/06 (2013.01); Y02W 30/62 (2015.05)

Citation (search report)

See references of WO 2021013842A1

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)

WO 2021013849 A1 20210128; EP 4004092 A1 20220601; EP 4004093 A1 20220601; WO 2021013842 A1 20210128

DOCDB simple family (application)

EP 2020070582 W 20200721; EP 2020070573 W 20200721; EP 20740349 A 20200721; EP 20740351 A 20200721