

Title (en)

METHOD OF INCREASING THE STRENGTH AND/OR HARDNESS OF A GLASS ARTICLE

Title (de)

VERFAHREN ZUM ERHÖHEN DER FESTIGKEIT UND/ODER DER HÄRTE EINES GLASGEGENSTANDES

Title (fr)

PROCÉDÉ POUR AUGMENTER LA RÉSISTANCE ET/OU LA DURETÉ D'UN ARTICLE EN VERRE

Publication

**EP 4208421 A1 20230712 (DE)**

Application

**EP 21770233 A 20210902**

Priority

- LU 102043 A 20200903
- EP 2021074281 W 20210902

Abstract (en)

[origin: WO2022049203A1] The invention relates to methods of increasing the strength, especially the flexural strength, of a glass article produced from a glass material. The method includes the step of heating the glass article to a first temperature above the transformation temperature of the glass material, the step of shock cooling the glass article to a second temperature below the transformation temperature of the glass material, and the step of performing an ion exchange process at the second temperature.

IPC 8 full level

**C03C 21/00** (2006.01); **C03B 27/03** (2006.01); **C03C 23/00** (2006.01)

CPC (source: EP KR US)

**A47G 19/02** (2013.01 - US); **A47G 19/2205** (2013.01 - US); **C03B 27/012** (2013.01 - US); **C03B 27/02** (2013.01 - EP KR US); **C03B 27/03** (2013.01 - EP KR); **C03C 3/091** (2013.01 - US); **C03C 21/002** (2013.01 - EP KR US); **C03C 23/007** (2013.01 - EP KR); **A47G 2400/10** (2013.01 - US)

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022049203 A1 20220310**; AU 2021335528 A1 20230406; CA 3193626 A1 20220310; CN 116234780 A 20230606; EP 4208421 A1 20230712; JP 2023539777 A 20230919; KR 20230061419 A 20230508; LU 102043 B1 20220303; MX 2023002582 A 20230710; TW 202220944 A 20220601; US 2023312388 A1 20231005

DOCDB simple family (application)

**EP 2021074281 W 20210902**; AU 2021335528 A 20210902; CA 3193626 A 20210902; CN 202180063039 A 20210902; EP 21770233 A 20210902; JP 2023515036 A 20210902; KR 20237010177 A 20210902; LU 102043 A 20200903; MX 2023002582 A 20210902; TW 110132609 A 20210902; US 202118024349 A 20210902