

Title (en)
METHOD OF MAKING A POLARIZING GLASS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON POLARISIERENDEM GLAS

Title (fr)
PROCEDE DE FABRICATION DE VERRE POLARISANT

Publication
EP 0931029 A4 20000510 (EN)

Application
EP 97941471 A 19970908

Priority
• US 9715895 W 19970908
• US 2725696 P 19960930

Abstract (en)
[origin: WO9814409A1] A method of producing a polarizing glass article that exhibits a broad band of high contrast polarizing properties in the infrared region of the radiation spectrum, that is phase-separated or exhibits photochromic properties based on silver, copper, or copper-cadmium halide crystals or a combination thereof precipitated in the glass and having a size in the range of 200-5000 Angströms, and that has a surface layer containing elongated silver, copper, or copper cadmium metal particles, or a mixture of same, the method comprising the step of thermally forming and precipitating large halide crystals by subjecting the glass article to a time-temperature cycle in which the temperature is at least 75 DEG C above the glass softening point. The figure is a graphical representation of stress levels in psi versus center wavelengths (CWLs) in nm, where center wavelength is defined as the center of a given range of polarizing capability. Specifically, the stress levels required to achieve a given center wavelength is compared for two heat treatment cycles. The upper line (A) represents data for the standard heat treatment of polarizing glasses; 710 DEG C for 4 hours. Line (B) represents data for the new high temperature heat treatment of 750 DEG C for 8 hours.

IPC 1-7
C03C 15/00; **C03B 37/00**; **C03C 14/00**; **C03C 4/00**; **C03C 10/16**

IPC 8 full level
C03B 23/00 (2006.01); **C03B 32/02** (2006.01); **C03C 3/11** (2006.01); **C03C 4/00** (2006.01); **C03C 4/06** (2006.01); **C03C 10/04** (2006.01); **C03C 14/00** (2006.01); **C03C 15/00** (2006.01); **C03C 23/00** (2006.01); **G02B 1/00** (2006.01); **G02B 5/30** (2006.01)

CPC (source: EP KR)
C03B 23/0006 (2013.01 - EP); **C03B 32/02** (2013.01 - EP); **C03C 4/06** (2013.01 - EP); **C03C 14/006** (2013.01 - EP); **C03C 15/00** (2013.01 - KR); **C03C 23/007** (2013.01 - EP)

Citation (search report)
• [XY] EP 0719742 A1 19960703 - HOYA CORP [JP]
• [XY] EP 0719741 A1 19960703 - HOYA CORP [JP]
• [XY] US 5430573 A 19950704 - ARAUJO ROGER J [US], et al
• [DY] US 4908054 A 19900313 - JONES KELLY E [US], et al
• See references of WO 9814409A1

Designated contracting state (EPC)
DE FR GB NL

DOCDB simple family (publication)
WO 9814409 A1 19980409; EP 0931029 A1 19990728; EP 0931029 A4 20000510; JP 2001501163 A 20010130; KR 100490316 B1 20050517; KR 20000048737 A 20000725

DOCDB simple family (application)
US 9715895 W 19970908; EP 97941471 A 19970908; JP 51654998 A 19970908; KR 19997002719 A 19990329