Title (en)

Method for producing two overlaying microstructures

Title (de)

Verfahren zur Herstellung von zwei überlagernden Mikrostrukturen

Title (fr)

Procédé de fabrication de deux microstructures superposées

Publication

EP 1611466 B8 20071010 (DE)

Application

EP 04721504 A 20040318

Priority

- EP 2004002822 W 20040318
- DE 10312564 A 20030321
- DE 10318105 A 20030422

Abstract (en)

[origin: US7618564B2] Light-diffracting microstructures are produced by the superimposition of at least two relief structures, wherein the first relief structure is produced mechanically while at least one second relief structure is a photomechanically generated diffraction structure. A process for the production of light-diffracting microstructures which are additive superimpositions comprising a relief structure and at least one diffraction structure, is distinguished by the following steps: a) producing a layer of photoresist on a substrate whose free surface has the relief structure, b) producing an interference pattern with coherent light over the relief structure, c) orienting the relief structure in relation to the interference pattern, d) exposing the relief structure by means of the interference pattern, e) developing the photoresist, wherein material of the photoresist which is changed by the exposure operation is removed and recesses, for example grooves, of the diffraction structure are produced on the relief structure, and f) drying the photoresist.

IPC 8 full level

G02B 5/18 (2006.01); **B42D 15/10** (2006.01); **G06K 19/16** (2006.01)

CPC (source: EP US)

B42D 25/328 (2014.10 - EP US); **G02B 5/1823** (2013.01 - EP US); **G02B 5/1852** (2013.01 - EP US); **G02B 5/1857** (2013.01 - EP US); **G02B 5/1861** (2013.01 - EP US); **G06K 19/16** (2013.01 - EP US)

Cited by

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DOCDB simple family (publication)

WO 2004083911 A1 20040930; AT E371200 T1 20070915; DE 502004004729 D1 20071004; EP 1611466 A1 20060104; EP 1611466 B1 20070822; EP 1611466 B8 20071010; PL 1611466 T3 20080131; RU 2005132470 A 20060410; RU 2310896 C2 20071120; US 2007003876 A1 20070104; US 2008102408 A9 20080501; US 7618564 B2 20091117

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