

Title (en)

METHOD AND DEVICE FOR MODIFYING THE POLARISATION STATE OF LIGHT

Title (de)

MAGNETO-OPTISCHES VERFAHREN ZUR ÄNDERUNG DES POLARISATIONSZUSTANDES VON LICHT UND ZUGEHÖRIGE VORRICHTUNG

Title (fr)

PROCEDE ET DISPOSITIF PERMETTANT DE MODIFIER L'ETAT DE POLARISATION DE LA LUMIERE

Publication

EP 1474722 A2 20041110 (DE)

Application

EP 03704088 A 20030212

Priority

- AT 0300042 W 20030212
- AT 2162002 A 20020212

Abstract (en)

[origin: WO03069395A2] A magnetic, single-axis crystal is used to modify the polarisation state of light, whereby light passes through predetermined areas of the crystal. To change the polarisation state of the light, a magnetic field pulse is applied to the crystal with a magnetic field amplitude, at which the crystal no longer remains in the single-domain state at the end of the pulse, but returns to a defined multi-domain state that is determined by the direction of the applied magnetic field, thus achieving large usable apertures of the switching element and extremely short change periods. According to the invention, energy is only required for the change operation and not for maintaining a specific state.

IPC 1-7

G02F 1/09

IPC 8 full level

G02F 1/00 (2006.01); **G02F 1/09** (2006.01); **G02F 1/01** (2006.01)

CPC (source: EP KR US)

G02F 1/092 (2013.01 - EP US); **G02F 1/11** (2013.01 - KR); **G02F 1/0136** (2013.01 - EP US)

Citation (search report)

See references of WO 03069395A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

WO 03069395 A2 20030821; **WO 03069395 A3 20031218**; AT 411852 B 20040625; AT A2162002 A 20031115; AU 2003206487 A1 20030904; CA 2475203 A1 20030821; CN 100397148 C 20080625; CN 1688915 A 20051026; EP 1474722 A2 20041110; JP 2005517977 A 20050616; KR 20040089623 A 20041021; MX PA04007814 A 20050620; PL 370581 A1 20050530; RU 2004127230 A 20050410; RU 2303801 C2 20070727; US 2005128729 A1 20050616; US 7158301 B2 20070102; ZA 200407272 B 20051018

DOCDB simple family (application)

AT 0300042 W 20030212; AT 2162002 A 20020212; AU 2003206487 A 20030212; CA 2475203 A 20030212; CN 03803785 A 20030212; EP 03704088 A 20030212; JP 2003568460 A 20030212; KR 20047012476 A 20030212; MX PA04007814 A 20030212; PL 37058103 A 20030212; RU 2004127230 A 20030212; US 50413004 A 20040929; ZA 200407272 A 20040910