Title (en)

LIQUID-CRYSTAL DISPLAY USING UV LIGHT SOURCE

Title (de)

FLÜSSIGKRISTALLANZEIGE, DIE EINE UV-LICHTQUELLE VERWENDET

Title (fr)

AFFICHAGE A CRISTAUX LIQUIDES UTILISANT UNE SOURCE DE LUMIERE UV

Publication

EP 1040382 A1 20001004 (EN)

Application

EP 98960001 A 19981216

Priority

- GB 9803688 W 19981216
- GB 9726570 A 19971216

Abstract (en)

[origin: WO9931546A1] A particularly useful form of light source is disclosed for UV/phosphor-type liquid-crystal displays. The source is a discharge lamp (1) lined with a first phosphor (3) that emits UVA light (5) which is then modulated by a liquid-crystal device (9) before reaching a second phosphor (11) acting as a display surface and emitting visible light when excited by the modulated narrow-band UVA light. To provide the narrow bandwidth the first phosphor is preferably Eu<2+>-doped CaSO4. The CaSO4:Eu<2+> phosphor is prepared by heating a mixture of CaSO4, (NH4)2SO4 and EU2O3 in an inert atmosphere, cooling the resultant mixture, adding a reducing agent, in particular NH4Cl, heating again in an inert atmosphere and grinding or otherwise processing to the required particle size.

IPC 1-7 (main, further and additional classification)

G02F 1/1335

IPC 8 full level (invention and additional information)

G02F 1/13357 (2006.01)

CPC (invention and additional information)

G02F 1/133617 (2013.01)

Citation (search report)

See references of WO 9931546A1

Designated contracting state (EPC)

DE FR GB NL

DOCDB simple family

WO 9931546 A1 19990624; EP 1040382 A1 20001004; GB 9726570 D0 19980211