Title (en)

Thin film electroluminescent edge emitter structure.

Title (de)

Elektrolumineszente Dünnschicht-Randstrahlenstruktur.

Title (fr)

Structure électroluminescente à film mince émettant sur la tranche.

Publication

**EP 0372942 B1 19940928 (EN)**

Application

**EP 89312740 A 19891207**

Priority

US 28090988 A 19881207

Abstract (en)

[origin: EP0372942A2] A thin electroluminescent edge emitter structure having an integral beam-shaping lens system includes a common electrode layer disposed on a layer of substrate material. A first dielectric layer is disposed on the common electrode layer, a second dielectric layer is spaced from the first dielectric layer, and a phosphor layer is interposed between the first and second dielectric layers. The phosphor layer has an edge face extending between the first and second dielectric layers. A plurality of control electrodes are disposed on the second dielectric layer, and the common electrode layer, first and second dielectric layers with the phosphor layer interposed therebetween and the plurality of control electrodes define a plurality of pixels. Each of the pixels has a light-emitting face formed from at least the phosphor layer edge face. The plurality of control electrodes and the common electrode are adapted to be connected with an excitation source for applying an excitation signal to selected pixels. The application of an excitation signal to an individual pixel caused the pixel to radiate light energy within the phosphor layer associated with the pixel in in at lease a direction towards the pixel light-emitting face. The light-emitting face of the pixel is shaped to a preselected contour to define an optical lens integral therewith to project the light energy passed therethrough in a preselected direction and form a beam of light energy having a preselected beam pattern.

IPC 1-7

**H05B 33/06**; H05B 33/12

IPC 8 full level

**H05B 33/02** (2006.01); **H05B 33/06** (2006.01); **H05B 33/12** (2006.01)

CPC (source: EP)

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Cited by

EP0748145A3; US5138347A; EP0408231A1; US5101137A; EP0398592A3; US5043715A; US6362333B1; KR100439390B1

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