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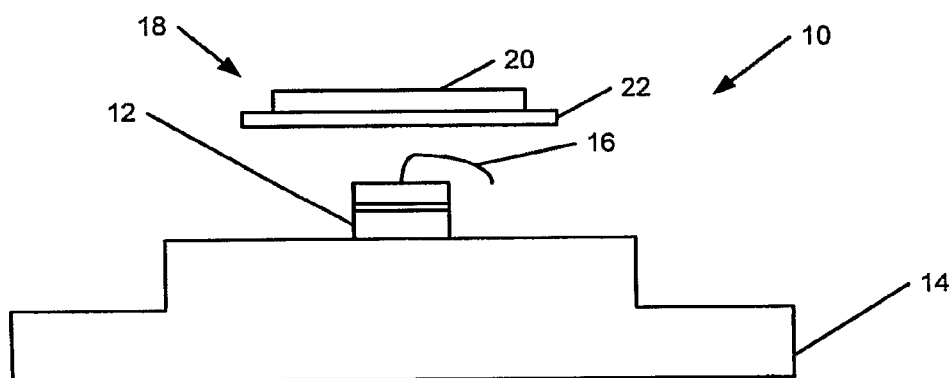
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(54) Title: LIGHT SOURCE INCLUDING QUANTUM DOT MATERIAL AND APPARATUS INCLUDING SAME



(57) Abstract: A light source comprising a light emitting device and quantum dot material is disclosed. According to various embodiments, the quantum dot material is positioned relative to the light emitting device such that the quantum dot material absorbs light emitted from the light emitting device and converts the wavelengths of photons emitted from the light emitting device to longer wavelengths. Judicious selection of the quantum dot material allows the emission spectra of the light source to be tailored to meet the needs of a particular illumination application, and avoids the drawbacks associated with the use of interference filters because the quantum dot material can upconvert the wavelengths emitted from the light emitting device such that the emission spectra of the light source can include wavelengths that are not emitted by the light emitting device itself.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/11547

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G02F 1/017 (2007.10)

USPC - 257/103

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - G02F 1/017 (2007.10)

USPC - 257/12,13,103; 977/950

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPTO EAST System (US, USPG-PUB, EPO, JPO, FPRS, DERWENT), GoogleScholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,501,091 B1 (BAWENDI et al) 31 December 2002 (31.12.2002) entire document	1-5,7,9-16,20-25,28,29
Y		6,8,17-19,26,27,30-43
Y	US 5,987,044 A (ODAGAWA et al) 16 November 1999 (16.11.1999) column 3, lines 18-column 4, line 5	6
Y	US 5,475,221 A (WANG) 12 December 1995 (12.12.1995) Fig. 1, column 1, lines 58-67	8,17-19,30-43
Y	US 2002/0196827 A1 (SHIELDS et al) 26 December 2002 (26.12.2002) Fig. 12, paragraph [0208]	17,18,38,39
Y	US 6,596,195 B2 (SRIVASTAVA et al) 22 July 2003 (22.07.2003) column 1, line 59- column 2, line 16	26,27,42,43

☐ Further documents are listed in the continuation of Box C.

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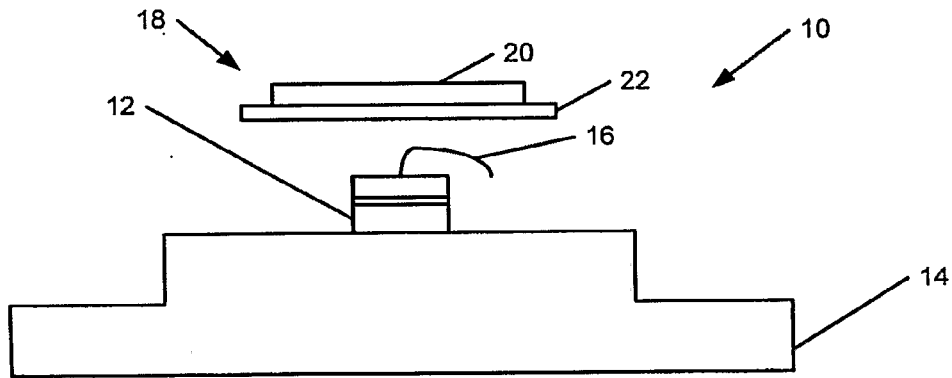


Fig. 1

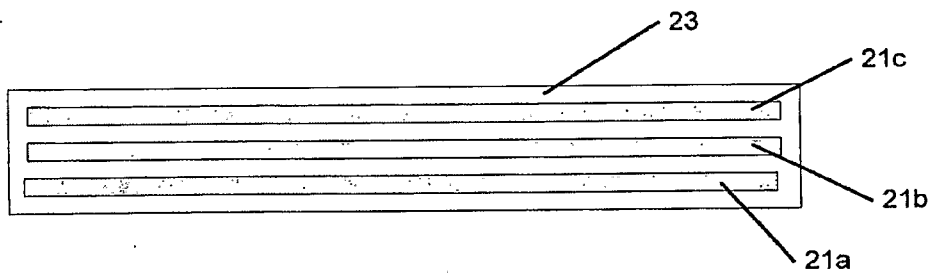


Fig. 2