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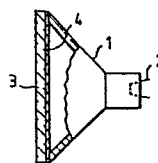
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(54) **Cathode ray tube screens.**

(57) A cathode ray tube comprises an envelope (1) having a screen (3) of a single crystalline or polycrystalline material such as yttrium aluminium garnet. Dopants such as Tb³⁺, Eu³⁺, Ce³⁺ or Tm³⁺ are implanted to different depths or in different areas (7, 10) of the screen. Annealing the screen removes lattice damage caused by the implanting. Multicolour luminescence is obtained by scanning an electron beam over the differently doped areas (7, 10), or by varying the electron beam energy as it scans.

Fig.1.





DOCUMENTS CONSIDERED TO BE RELEVANT			EP 82302090.4
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
A	US - A - 4 179 638 (BOYD) * Abstract; claim 1 *	1,4	H 01 J 29/20 C 09 K 11/475 H 01 L 21/477
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D,A	GB - A - 2 000 173 (PHILIPS) * Abstract; page 1, lines 100-103; claims 1-14 *	1,4,7	
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A	GB - A - 1 446 268 (RCA) * Claim 1; column 1, lines 1-29 *	1	
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A	GB - A - 1 484 399 (STANDARD TELEPHONES) * Claim 1 *	1	

			TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
			H 01 J 29/00 C 09 K 11/00 H 01 L 21/00 H 01 J 31/00
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 31-01-1983	Examiner VAKIL
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			