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(54) **Thermal imaging system.**

(57) A thermal imaging device having a print surface adapted to provide localised heating to a medium comprising a thermally activatable component of an imaging forming system, the device comprising the following sequential layers:

- (a) a transparent or semi-transparent electrically conductive layer,
- (b) a photoconductive layer which when illuminated by radiation of 633nm wavelength and intensity of 4.0×10^6 W/m² has a conductivity of at least 0.01 S/cm and a photosensitive ratio of at least 1×10^3 ,
- (c) an electrically conductive layer in electrical contact with the photoconductive layer (b) and in contact with:
- (d) an abrasion-resistant wear layer, or,
- (e) a layer comprising said thermally activatable component of an image forming system;

wherein the layers are constructed and arranged such that when a voltage potential is applied across layers (a) and (c) and the device is exposed through

layer (a), the exposed areas of layer (b) become conductive enhancing current flow and generating heat in layer (b) at points corresponding to the exposed areas and causing localised heating at the adjacent areas of the print surface sufficient to thermally activate said component of an image forming system. The thermal imaging devices are suitable for developing thermally sensitive paper or effecting thermal transfer of a colourant, dye, toner or other image forming material.

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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X,Y	US-A-2 798 959 (A.J. MONCRIEFF-YEATES) * column 5, line 64 - column 6, line 10; claims 1, 12 ** column 7, line 31 - column 8, line 27 * - - -	1-19	B 41 M 5/38 G 03 G 5/153 G 03 G 5/02
Y	FR-A-2 087 778 (INTERNATIONAL BUSINESS MACHINES CORPORATION) * page 2, line 3 - page 3, line 11 * - - -	1-19	
Y,D	GB-A-2 004 077 (N.V. PHILIPS' GLOEILAMPEN-FABRIEKEN) * the whole document * - - -	1-19	
Y,D	US-A-4 470 055 (H.TODOH) * column 1, line 43 - column 2, line 5 ** column 3, lines 15 - 51 * - - -	1-19	
A	FR-A-2 368 066 (EASTMAN KODAK COMPANY) * page 5, lines 10 - 25; claim 1 * - - - - -	1-19	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 41 M G 03 G
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of search 08 August 91	Examiner BACON,A.J.
CATEGORY OF CITED DOCUMENTS 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 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			