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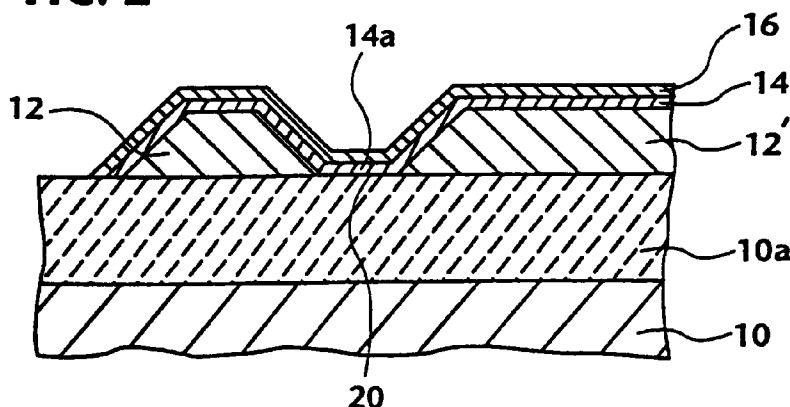
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(54) **Thermal head for printers**

(57) The invention relates to a thermal head for ink-jet printers or thermal printers, which has an array of heat generating zones (20) on a substrate (10) having an insulating surface (10a). Each heat generating zone is defined between two opposite electrodes (12,12') which are formed by patterning a conductor film deposited on the insulating surface (10a) of the substrate. That is, in the heat generating zones (20) the conductor film is absent. A patterned resistor (14) film, which is an anodically oxidizable film such as tantalum film, covers the electrodes and the insulating surface in the heat

generating zones, and a surface layer of the resistor film is anodically oxidized to provide a protective layer (16). In this thermal head the anodic oxidation of the resistor film can be performed under optimal conditions since the conductor film is entirely covered with the resistor film. Therefore the thermal head becomes very good in durability, and it is possible to greatly reduce the thickness of the unoxidized part of the resistor film to thereby enhance responsiveness and reduce power consumption.

FIG. 2



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EUROPEAN SEARCH REPORT

Application Number
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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.6)
A,D	US-A-4 535 343 (WRIGHT ET AL.) * column 2, line 59 - column 3, line 16 * * column 3, line 36 - column 6, line 21; figure 1 *	1,12	B41J2/335 B41J2/16
A	--- PATENT ABSTRACTS OF JAPAN vol. 10, no. 216 (M-502), 29 July 1986 & JP-A-61 054952 (FUJITSU LTD), 19 March 1986, * abstract *	1,12	
A	--- US-A-4 956 653 (BRAUN) * column 3, line 50 - column 4, line 64; figure 4 *	1,12	
A	--- EP-A-0 251 036 (KABUSHIKI KAISHA TOSHIBA) * column 3, line 9 - column 7, line 46; figures 1-5 *	1,12	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B41J
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		14 November 1996	Rivero, C
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			

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