



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



⑪ Publication number:

**0 335 617 A3**

⑫

## EUROPEAN PATENT APPLICATION

⑬ Application number: 89302961.1

⑮ Int. Cl. 5: **H05B 3/26, H05B 3/74**

⑯ Date of filing: **23.03.89**

⑰ Priority: **25.03.88 GB 8807139**

**4 Tenterden Street**

**London W1A 2AY(GB)**

⑲ Date of publication of application:  
**04.10.89 Bulletin 89/40**

⑯ Inventor: **Balderson, Simon Neville**

**64, Fleetham Gardens, Lower Earley**

**Nr. Reading, Berkshire,(GB)**

⑳ Designated Contracting States:  
**AT BE CH DE ES FR GB GR IT LI LU NL SE**

㉑ Date of deferred publication of the search report:  
**20.03.91 Bulletin 91/12**

㉒ Representative: **Marsh, Robin Geoffrey et al**

**Thorn EMI Patents Limited The Quadrangle**

**Westmount Centre Uxbridge Road**

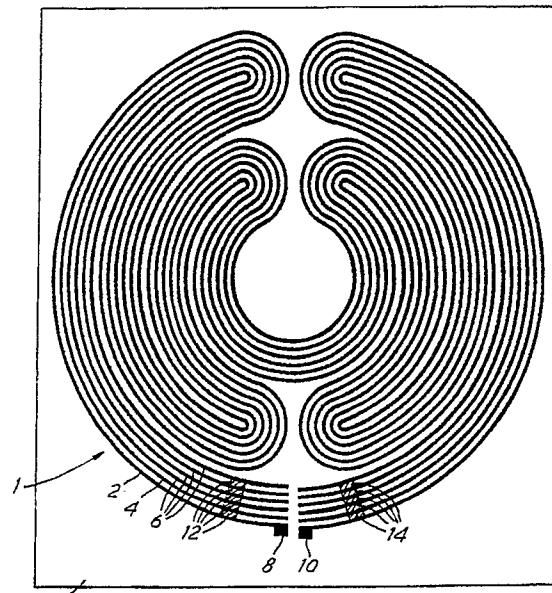
**Hayes Middlesex, UB4 0HB(GB)**

㉓ Applicant: **THORN EMI plc**

### ㉔ Current source limitation for thick film heating elements.

㉕ A heating element (1) comprises a plurality of thick film electrically resistive tracks (2, 4, 6), of which at least one has a temperature coefficient of resistance in excess of 0.006 per degree C. A first track (2) is for electrical connection to a power supply. Means (12, 14) for electrically connecting the

first track (2) to a second track (4, 6) comprise a component which depends on temperature such that, in use, the current flowing in the second track (4, 6) increases with the temperature of the first track (2).



*FIG.1*

**EP 0 335 617 A3**



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)
A	EP-A-0 227 405 (RAYCHEM) * Page 10, paragraph 2; figure 3 * - - -	1,3,5	H 05 B 3/26 H 05 B 3/74
A	EP-A-0 208 823 (KANTHAL) * Column 2, lines 1-6 * - - -	1,2	
A	US-A-3 396 055 (HEDDEN et al.) * Column 4, line 70 - column 5, line 9 * - - -	1	
A	US-A-2 777 930 (MAX MATHANSON) * Column 3, line 54 - column 4, line 32; figure 2 * - - - -	3,5	
TECHNICAL FIELDS SEARCHED (Int. Cl.5)			
H 05 B			

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	19 December 90	ANNIBAL P.S.

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