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(71) Applicants and

(72) Inventors: LEE, Jang-Hun [KR/KR]; 103, Youchon-Centreville, 1052-1, Gayong-ri, Wando-eup, Wandogun, Jeollanam-do 537-801 (KR). LEE, Gwan-Woo [KR/KR]; 103, Youchon-Centreville, 1052-1, Gayong-ri, Wando-eup, Wandogun, Jeollanam-do 537-801 (KR). LEE, Boo-Hun [KR/KR]; 103, Youchon-Centreville, 1052-1, Gayong-ri, Wando-eup, Wandogun, Jeollanam-do 537-801 (KR). LEE, Lyun-Gwan [KR/KR]; 302, Chunghae-yeolip, 411-33, Namhyang-ri, Wando-eup, Wandogun, Jeollanam-do 537-804 (KR).

(74) Agents: KIM, Kuk-Jin et al.; 2nd. Fl. Keimyung Bldg., 1178-2, Guwol 1-dong, Namdong-gu, Incheon 405-835 (KR).

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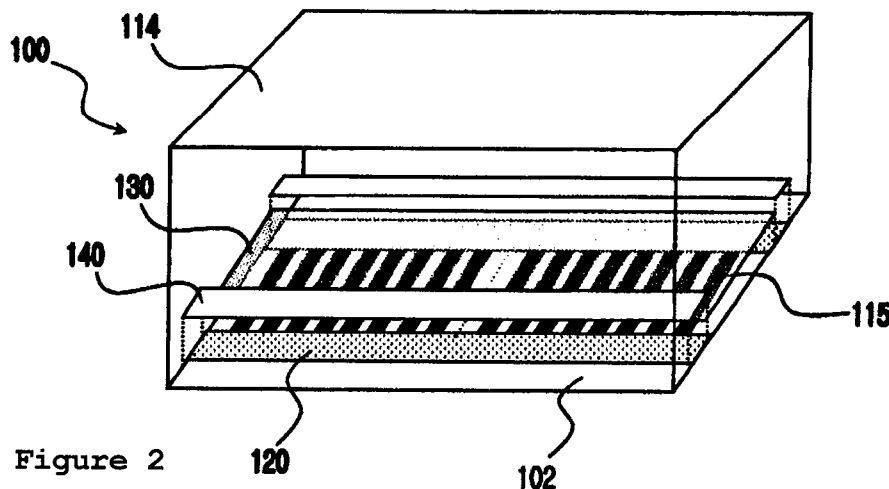


Figure 2

(57) Abstract: Disclosed is a sheet type heating element adequate for emitting a large amount of far infrared rays and for heating purposes, which includes an insulating base substrate, a carbon heating part formed on the insulating base substrate, a first conductive layer printed on both ends of the carbon heating part using metal or non-iron metal ink, a second conductive layer printed on the first conductive layer using non-iron metal ink, a damage prevention layer for preventing the second conductive layer and the carbon heating part from being damaged by a copper electrode upon physical impact and for achieving electrical connection therebetween, the copper electrode disposed to be in contact with the second conductive layer so as to supply current over a long distance, and a coating film for sealing and laminating these parts.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2008/007619**A. CLASSIFICATION OF SUBJECT MATTER****H05B 3/20(2006.01)i**

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: H05B

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

Korean Utility models and applications for Utility models since 1975
Japanese Utility models and applications for Utility models since 1975

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

eKOMPASS (KIPO internal) & keywords: "heater, plane, plate", "case, house,frame", "heat, board, plate"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2006-324181 A (MATSUSHITA ELECTRIC IND. CO., LTD.) 30 NOV. 2006 Claim 1; figure 3	1-9
A	JP 2001-023760 A (RYOYU KOGYO KK) 26 JAN. 2001 Claim 1; figure 3	1-9
A	KR 20-2007-0000477 U (LEE, JANG HUN et al.) 25 APR. 2007 Abstract; figure 1; claim 1	1-9
A	KR 20-2007-0000672 U (LEE, JANG HUN et al.) 11 JUN. 2007 Abstract; figure 1; claim 1	1-9
A	KR 20-2007-0000723 U (LEE, JANG HUN et al.) 22 JUN. 2007 Abstract; figure 1; claim 1	1-9

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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JP 2006-324181 A	30.11.2006	NONE	
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KR 20-2007-0000672 U	11.06.2007	NONE	
KR 20-2007-0000723 U	22.06.2007	NONE	