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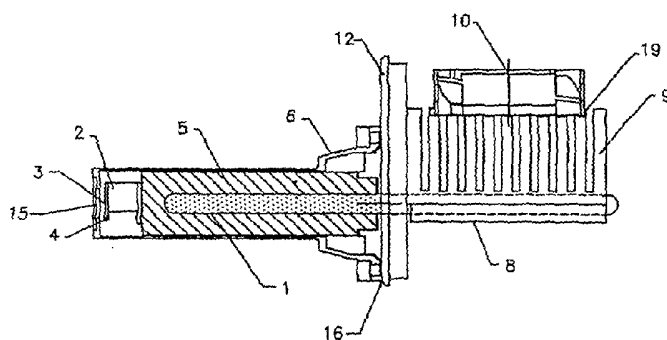
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(54) Title: RADIATION DETECTOR SYSTEM HAVING HEAT PIPE BASED COOLING



(57) Abstract: A radiation detector system having a heat pipe (1) based cooling. The radiation detector system includes a radiation detector (3) thermally coupled to a thereto electric cooler (TEC) (2). The TEC (2) cools down the radiation detector (3), whereby heat is generated by the TEC (2). A heat removal device (9) dissipates the heat generated by the TEC (2) to surrounding environment. A heat pipe (1) has a first end (4) thermally coupled to the TEC (2) to receive the heat generated by the TEC (2), and a second end thermally coupled to the heat removal device (9). The heat pipe (1) transfers the heat generated by the TEC (2) from the first end to the second end to be removed by the heat removal device (9).

WO 2006/028563 A3

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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) U.S. : 250/370.15, 370.14, 370.09, 505.1, 504R, 352, 338.4, 493.1, 492.2		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,811,816 A (GALLAGHER et al) 22.09.1998), column 6, lines 10-24, column 7, lines 1-10 and lines 40-67, column 8, lines 1-13 and lines 50-67, column 9, lines 1-3 and 25-62, column 11, lines 22-24, column 14, lines 20-34, column 15, lines 14-28, column 16, lines 11-27, column 17, lines 29-35, column 18, lines 34-50	1-20
A	US 6,565,815 B1 (CHANG et al) 20 May 2003 (20.05.2003), column 5, lines 50-67, column 6, lines 1-18, column 16, lines 20-41)	1-20
☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.		
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Date of the actual completion of the international search 13 December 2005 (13.12.2005)		Date of mailing of the international search report 04 JAN 2006
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer Dave Porta Telephone No. none