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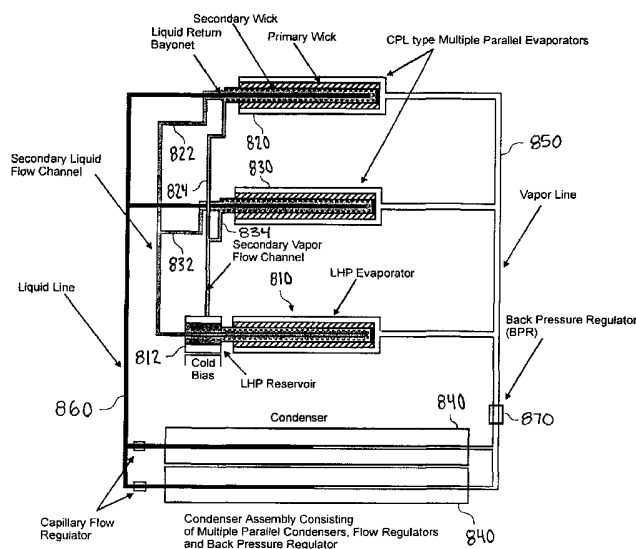
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(54) Title: PHASE CONTROL IN THE CAPILLARY EVAPORATORS



(57) Abstract: A capillary pump two phase heat transport system that combines the most favorable characteristics of a capillary pump loop (CPL) with the robustness and reliability of a loop heat pipe (LHP). Like a CPL, the hybrid loop has plural parallel evaporators, plural parallel condensers, and a back pressure flow regulator. Unlike CPLs, however, the hybrid system incorporates elements that form a secondary loop, which is essentially a LHP that is co-joined with a CPL to form an inseparable whole. Although secondary to the basic thermal management of the system thermal bus, the LHP secondary loop portion of the system provides for important operational functions that maintain healthy, robust and reliable operation. The LHP secondary loop portion provides a function of fluid management during start-up, steady state operation, and heat sink/heat source temperature and power cycling.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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)

IPC 7 F28D

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 practical, search terms used)

WPI Data, PAJ, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 944 092 A (S.VAN OOST) 31 August 1999 (1999-08-31) the whole document ---	1-7
A	EP 0 987 509 A (MATRA MARCONI SPACE FRANCE) 22 March 2000 (2000-03-22) the whole document ---	1-7
A	US 5 771 967 A (N.L.HYMAN) 30 June 1998 (1998-06-30) the whole document -----	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT
Information on patent family members

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