Abstract: A heat sink includes a fluid channel and a cooling wall in contact with coolant flowing in the fluid channel. The channel is configured to vary the velocity of coolant along the length of the fluid channel to vary the coolant's heat transfer coefficient and thereby compensate for the coolant's temperature rise along the length of the fluid channel. The result is a heat sink that is isothermal along its length.
# INTERNATIONAL SEARCH REPORT

**International application No**
PCT/US 07/01316

**A CLASSIFICATION OF SUBJECT MATTER**
IPC(8) - H05K 7/20 (2007.1.0)

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)
USPC 361/709

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC 361/688,699,702,707,709,71 1,714

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Pub WEST (USPT, PGPB, EPAB, JPAB), Google Scholar

Search Terms Used sink, fluid, channel, velocity, restriction, taper, isothermal, fluid, liquid, narrow, slow, plastic, stepped, drill

**C DOCUMENTS CONSIDERED TO BE RELEVANT**

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<td>US 6,253,835 B1 (CHU et al.) 03 July 2001 (03 07 2001), col 3, in 47 - col 8, in 43</td>
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<td>US 2003/01 15753 A1 (KLETT et al.) 26 June 2003 (26 06 2003), para [0036]</td>
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<td>US 2005/01 17301 A1 (PRASHER et al.) 02 June 2005 (02 06 2005), entire document</td>
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**D**

Further documents are listed in the continuation of Box C.

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**Date of the actual completion of the international search**
15 December 2007 (15 12 2007)

**Date of mailing of the international search report**
12 FEB 2008

**Name and mailing address of the ISA/US**
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**Form PCT/ISA/2 10 (second sheet) (April 2007)**
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