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(54) Title: MEASURING SEEBECK COEFFICIENT

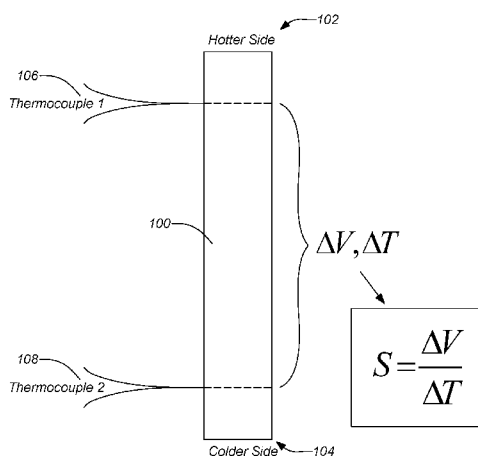


FIG. 1

(57) Abstract: A high temperature Seebeck coefficient measurement apparatus and method with various features to minimize typical sources of errors is described. Common sources of temperature and voltage measurement errors which may impact accurate measurement are identified and reduced. Applying the identified principles, a high temperature Seebeck measurement apparatus and method employing a uniaxial, four-point geometry is described to operate from room temperature up to 1300K. These techniques for non-destructive Seebeck coefficient measurements are simple to operate, and are suitable for bulk samples with a broad range of physical types and shapes.



A. CLASSIFICATION OF SUBJECT MATTER*G01N 25/18(2006.01)i, H01L 35/28(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)

G01N 25/18; G01K 15/00; H01L 35/28; G01N 25/00

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

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: Seebeck, coefficient, heater, isothermal, thermocouple, sample.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2009-210378 A (OSAKA PREFECTURE UNIV) 17 September 2009 See paragraph [0015] - paragraph [0030]; claim 1 and figure 2.	1-11
A	JP 2009-258032 A (ULVAC-RIKO INC et al.) 05 November 2009 See paragraph [0008] - paragraph [0050]; claim 1 and figures 1-2.	1-11
A	US 6676287 B1 (MATHIS; NANCY et al.) 13 January 2004 See column 5, line 21 - column 10, line 12; claim 1 and figure 5.	1-11
A	US 6487515 B1 (GHOSHAL; UTTAM SHYAMALINDU) 26 November 2002 See column 2, line 31 - column 9, line 4; claim 1 and figures 1-4.	1-11

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

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		JP 2002-131211 A	09.05.2002
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