

Title (en)

AN APPARATUS AND METHOD FOR DETECTING FREEZING OF A SUBSTANCE

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ERKENNUNG DES GEFRIERENS EINER SUBSTANZ

Title (fr)

APPAREIL ET PROCÉDÉ DE DÉTECTION DE CONGÉLATION D'UNE SUBSTANCE

Publication

**EP 3462110 A1 20190403 (EN)**

Application

**EP 17193538 A 20170927**

Priority

EP 17193538 A 20170927

Abstract (en)

An apparatus (2) for detecting freezing of a substance (3) includes a conduit (4) containing a substance (3) having a freezing temperature below which the substance (3) is in a solid state and above which the substance (3) is in a liquid state. The apparatus (2) also includes a layer (9) that is permeable to the substance (3) in its liquid state. The conduit (4) is arranged to convey the substance (3) to the layer (9). The apparatus (2) also includes a flow meter (6) constructed and arranged to obtain a measure of the flow rate of the substance (3) through the layer (9), whereby the flow rate of the substance (3) through the layer (9) detected by the flow meter (6) varies depending on the degree of freezing of the substance (3) on or in the layer (9).

IPC 8 full level

**F25C 5/08** (2006.01)

CPC (source: EP)

**F25C 5/08** (2013.01); **F25C 2500/04** (2013.01); **F25C 2700/02** (2013.01)

Citation (search report)

- [X] JP 2014016155 A 20140130 - TAKASAGO THERMAL ENGINEERING
- [X] JP H11257694 A 19990921 - ISHIKAWAJIMA HARIMA HEAVY IND
- [A] CN 104792080 A 20150722 - WANG FEIBO, et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3462110 A1 20190403; TR 201714639 A2 20190422**

DOCDB simple family (application)

**EP 17193538 A 20170927; TR 201714639 A 20170929**