

Title (en)
HEATER

Title (de)
HEIZUNG

Title (fr)
RÉCHAUFFEUR

Publication
EP 3101997 A4 20170913 (EN)

Application
EP 15742735 A 20150130

Priority
• JP 2014015190 A 20140130
• JP 2015052626 W 20150130

Abstract (en)
[origin: EP3101997A1] A heater including a ceramic body having a columnar shape or a tubular shape, a heating resistor in the ceramic body, a metal tube in which the whole of the ceramic body is disposed, and an insulating member disposed between at least a portion of the ceramic body and the metal tube. The insulating member includes a tubular portion in contact with an outer circumferential surface of the ceramic body at an inner circumferential surface thereof and in contact with an inner circumferential surface of the metal tube at an outer circumferential surface thereof.

IPC 8 full level
H05B 3/06 (2006.01); **F24H 1/00** (2006.01); **H05B 3/48** (2006.01); **H05B 3/78** (2006.01)

CPC (source: EP)
F24H 1/0018 (2013.01); **H05B 3/06** (2013.01); **H05B 3/48** (2013.01); **H05B 3/78** (2013.01); **H05B 2203/012** (2013.01); **H05B 2203/021** (2013.01); **H05B 2203/022** (2013.01); **H05B 2203/027** (2013.01)

Citation (search report)
• [YA] US 7309848 B2 20071218 - TAKAMURA KOZO [JP], et al
• [YA] DE 10040021 A1 20020228 - SCHNIEWINDT KG C [DE]
• See references of WO 2015115585A1

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CN111279791A

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

DOCDB simple family (publication)
EP 3101997 A1 20161207; **EP 3101997 A4 20170913**; **EP 3101997 B1 20180919**; CN 106416424 A 20170215; CN 106416424 B 20190823; JP 6194025 B2 20170906; JP WO2015115585 A1 20170323; WO 2015115585 A1 20150806

DOCDB simple family (application)
EP 15742735 A 20150130; CN 201580005347 A 20150130; JP 2015052626 W 20150130; JP 2015560025 A 20150130