

Title (en)  
HEATER AND IGNITION DEVICE

Title (de)  
HEIZER UND ZÜNDUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF DE CHAUFFAGE ET DISPOSITIF D'ALLUMAGE

Publication  
**EP 3136819 A4 20171227 (EN)**

Application  
**EP 15782910 A 20150427**

Priority  
• JP 2014090911 A 20140425  
• JP 2015062651 W 20150427

Abstract (en)  
[origin: EP3136819A1] A heater includes a ceramic multilayer body including a plurality of ceramic layers that are stacked together; a heat-generating resistor having a belt shape, the heat-generating resistor being disposed between the ceramic layers and arranged, and including both ends that are at a side surface of the ceramic multilayer body; and conductive layers having a belt shape, disposed between the ceramic layers and stacked on both end portions of the heat-generating resistor in such a manner that one end of each conductive layer is at the side surface. Each conductive layer includes a first conductive layer that extends to the side surface and a second conductive layer that is adjacent to the first conductive layer, each of the first conductive layer and the second conductive layer being formed of a plurality of grains, the grains of the first conductive layer having an average grain diameter smaller than an average grain diameter of the grains of the second conductive layer.

IPC 8 full level  
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CPC (source: EP)  
**F23Q 7/001** (2013.01); **H05B 3/02** (2013.01); **H05B 3/06** (2013.01); **H05B 3/12** (2013.01); **H05B 3/14** (2013.01); **H05B 3/18** (2013.01); **H05B 3/48** (2013.01); **H05B 2203/027** (2013.01)

Citation (search report)  
• [E] EP 2996438 A1 20160316 - KYOCERA CORP [JP]  
• [A] EP 1696704 A1 20060830 - KYOCERA CORP [JP]  
• [A] WO 2013047849 A1 20130404 - KYOCERA CORP [JP] & EP 2763498 A1 20140806 - KYOCERA CORP [JP]  
• [A] EP 0914021 A2 19990506 - NGK SPARK PLUG CO [JP]  
• [A] EP 1711034 A1 20061011 - KYOCERA CORP [JP]  
• See references of WO 2015163483A1

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Designated contracting state (EPC)  
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**EP 15782910 A 20150427**; CN 201580012328 A 20150427; JP 2015062651 W 20150427; JP 2016515248 A 20150427