Title (en)
ION CURRENT MEASUREMENT APPARATUS

Title (de)
IONENSTROMMESSVORRICHTUNG

Title (fr)
APPAREIL DE MESURE DE COURANT IONIQUE

Publication
EP 3045714 B1 20180228 (EN)

Application
EP 15202741 A 20151224

Priority
JP 2015006313 A 20150116

Abstract (en)
[origin: EP3045714A1] A detection section includes first and second conductors embedded in a ceramic substrate and is attached such that the substrate is exposed to a space in which ions are generated as a result of combustion of fuel. A measurement section measures the value of current flowing through the second conductor as an ion current originating from the generated ions. A correction section or a control section is provided to mitigate the influence, on the accuracy in detecting an ion current value, of a change in the temperature of the detection section. The correction section corrects the current value measured by the measurement section on the basis of the electrical resistance of the substrate between the first conductor and the second conductor. The control section controls the supply of electricity to the first conductor such that the electrical resistance becomes equal to a predetermined value. In the case where the control section is provided, the measurement section measures the current value in a state in which the supply of electricity to the first conductor is controlled by the control section.

IPC 8 full level
F02P 19/02 (2006.01); F23Q 7/00 (2006.01); F02D 35/02 (2006.01)

CPC (source: EP)
F02P 19/028 (2013.01); F02D 35/021 (2013.01); F23Q 2007/002 (2013.01)

Cited by
EP3171018A1

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 3045714 A1 20160720; EP 3045714 B1 20180228; EP 3171018 A1 20170524; EP 3171018 B1 20180314; JP 2016133004 A 20160725; JP 6435200 B2 20181205

DOCDB simple family (application)
EP 15202741 A 20151224; EP 17150296 A 20151224; JP 2015006313 A 20150116