

Title (en)

METHOD FOR OPERATING A GAS SENSOR FOR IMPROVING THE DETECTION OF NITROGEN OXIDES

Title (de)

VERFAHREN ZUM BETRIEB EINES GASENSORS ZUR VERBESSERUNG DER DETEKTION VON STICKOXIDEN

Title (fr)

PROCÉDÉ DE FONCTIONNEMENT D'UN CAPTEUR DE GAZ PERMETTANT D'AMÉLIORER LA DÉTECTION DES OXYDES D'AZOTE

Publication

EP 3152562 A1 20170412 (DE)

Application

EP 15744518 A 20150721

Priority

- DE 102014214409 A 20140723
- EP 2015066641 W 20150721

Abstract (en)

[origin: WO2016012446A1] The invention relates to the operation of a gas sensor for detecting nitrogen oxides in a gas mixture, comprising the following steps. Provision of a gas sensor comprising at least two electrodes of the same material arranged on an oxygen ion conductor, wherein when the gas sensor is operated, both electrodes come into contact with the gas mixture. The gas sensor is then heated from a first temperature to a second temperature. The second temperature of the gas sensor is maintained for a maximum of 15 minutes. The gas sensor is then cooled from the second temperature to the first temperature. During the heating, maintaining and/or cooling of the temperature, a cyclical polarisation is carried out with alternating polarity comprising a polarisation voltage below the reduction voltage of the oxygen ion conductor.

IPC 8 full level

G01N 27/406 (2006.01); **G01N 27/407** (2006.01)

CPC (source: EP US)

G01N 27/4065 (2013.01 - EP US); **G01N 27/4067** (2013.01 - EP US); **G01N 27/4074** (2013.01 - US); **G01N 27/4075** (2013.01 - US); **G01N 33/0037** (2013.01 - EP US); **G01N 27/407** (2013.01 - EP US); **Y02A 50/20** (2017.12 - EP US)

Citation (search report)

See references of WO 2016012446A1

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)

DE 102014214409 A1 20160128; EP 3152562 A1 20170412; US 2017212073 A1 20170727; WO 2016012446 A1 20160128

DOCDB simple family (application)

DE 102014214409 A 20140723; EP 15744518 A 20150721; EP 2015066641 W 20150721; US 201515326714 A 20150721