

Title (en)

Method for setting the calorific value in fuel gases containing methane

Title (de)

Verfahren zur Einstellung des Brennwertes in methanhaltigen Brenngasen

Title (fr)

Procédé de réglage de la valeur de combustion dans des gaz de combustion contenant du méthane

Publication

EP 2169035 B1 20130724 (DE)

Application

EP 09171002 A 20090922

Priority

DE 102008048819 A 20080922

Abstract (en)

[origin: EP2169035A1] The process comprises continuously guiding methane-containing fuel gases through a reactor, where the fuel gas is induced through energy transfer for generating plasma by which fuel gas/product gas changing its calorific value discharges from the reactor. The energy transfer is continuously carried out for generating accelerated plasma. The plasma is generated through electric cables, arc, other electric high voltage discharge, laser and microwaves. The fuel gas/product gas changing its calorific value is hydrogenated. The hydrogenation is catalytically carried out. The process comprises continuously guiding methane-containing fuel gases through a reactor, where the fuel gas is induced through energy transfer for generating plasma by which fuel gas/product gas changing its calorific value discharges from the reactor. The energy transfer is continuously carried out for generating accelerated plasma. The plasma is generated through electric cables, arc, other electric high voltage discharge, laser and microwaves. The fuel gas/product gas changing its calorific value is hydrogenated. The hydrogenation is catalytically carried out. The hydrogen available by changing the calorific value in the fuel gas/product gas is separated from the fuel gas. The calorific value is adjusted through variation of parameters such as electric power of plasma, flow speed of the fuel gas, electrode geometry, polarity of electrodes, pressure of fuel gas and electrode material. An independent claim is included for a device for adjusting calorific value in methane-containing fuel gases.

IPC 8 full level

C10L 3/06 (2006.01); **C10L 3/10** (2006.01)

CPC (source: EP)

C10L 3/06 (2013.01); **C10L 3/10** (2013.01)

Cited by

EP2692415A1; DE102010010896A1; DE102010010896B4; US9051526B2; WO2012175279A1

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

EP 2169035 A1 20100331; EP 2169035 B1 20130724

DOCDB simple family (application)

EP 09171002 A 20090922