

Title (en)

Method and device for determining and for controlling of the excess of air in a combustion process

Title (de)

Verfahren und Vorrichtung zur Bestimmung sowie zur Regelung des Luftüberschusses bei einem Verbrennungsprozess

Title (fr)

Procédé et dispositif pour déterminer et commander l'excès d'air dans un processus de combustion

Publication

EP 1091175 A3 20030813 (DE)

Application

EP 00120859 A 20000925

Priority

DE 19948377 A 19991007

Abstract (en)

[origin: EP1091175A2] Process for determining and regulating excess air during a combustion process comprises determining the formation rates of cyanide (K(CN)) and carbon monoxide (K(CO)) produced during the combustion and calculating the ratio K(CN)/K(CO) from the formation rates as a parameter representing the excess air. An Independent claim is also included for an apparatus for determining and regulating excess air during a combustion process comprising sensors (2, 3) and data processors (6) for determining the formation rates K(CN) and K(CO) during the combustion, and a device (13) for determining the ratio K(CN)/K(CO) from the formation rates as a parameter representing the excess air. Preferred Features: The formation rates K(CN) and K(CO) are determined using emission spectroscopy from the radiation from the combustion flame.

IPC 1-7

F23N 5/00; **F23N 5/08**

IPC 8 full level

F23N 5/00 (2006.01); **F23N 5/08** (2006.01); **F23N 1/02** (2006.01)

CPC (source: EP)

F23N 5/003 (2013.01); **F23N 5/082** (2013.01); **F23N 1/02** (2013.01); **F23N 2229/16** (2020.01)

Citation (search report)

- [A] DE 19710206 A1 19980917 - SIEMENS AG [DE]
- [A] US 4653998 A 19870331 - SOHMA KEN-ICHI [JP], et al

Cited by

WO2008110341A1; DE102008056672A1; EP4382893A1; FR2816056A1; AU2008226060B2; US9360209B2; WO2014075795A1; WO2010149687A3; US8203714B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1091175 A2 20010411; **EP 1091175 A3 20030813**; **EP 1091175 B1 20061102**; AT E344423 T1 20061115; DE 19948377 C1 20010523; DE 50013683 D1 20061214; DK 1091175 T3 20070122; ES 2272229 T3 20070501; PT 1091175 E 20070228

DOCDB simple family (application)

EP 00120859 A 20000925; AT 00120859 T 20000925; DE 19948377 A 19991007; DE 50013683 T 20000925; DK 00120859 T 20000925; ES 00120859 T 20000925; PT 00120859 T 20000925