

Title (en)

Method and apparatus for burning a fuel.

Title (de)

Verfahren und Vorrichtung zum Verbrennen eines Brennstoffes.

Title (fr)

Procédé et dispositif pour la combustion d'un combustible.

Publication

EP 0073265 A1 19830309 (EN)

Application

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Priority

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Abstract (en)

A method for burning a fuel, containing chemically bound nitrogen, in a two-stage, rich-lean combustion process, including; introducing the fuel and at least one stream of primary air into a primary combustion region at a fuel-air ratio above the stoichiometric ratio and in a manner to intimately mix the fuel and air and establish a stabilized flame adjacent the upstream end of the primary combustion region, maintaining the flame in the primary combustion region for a period of time sufficient to produce a combustion product mixture containing less than a predetermined amount of NO_x pollutants and abruptly terminating the primary combustion region while introducing at least one stream of secondary air into the secondary region in an amount sufficient to reduce the overall fuel-air ratio below the stoichiometric ratio and in a manner to prevent backflow of the secondary air into the primary combustion region. A method for initiating and maintaining the combustion process is described as well as apparatus for carrying out the combustion process.

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IPC 8 full level

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CPC (source: EP)

F23C 6/045 (2013.01)

Citation (search report)

- EP 0009523 A1 19800416 - EXXON RESEARCH ENGINEERING CO
- AT 355701 B 19800325 - ENERGIAGAZDALKODASI INTEZET [HU]
- DE 2243813 A1 19740314 - LINDE ROBERT VON DIPL ING
- DE 1107877 B 19610531 - BASF AG
- CH 591656 A5 19770930 - MITSUBISHI HEAVY IND LTD
- US 3174530 A 19650323 - MEENAN CYRIL F
- DE 2808874 A1 19790906 - SMIT OVENS NIJMEGEN BV

Cited by

EP0128792A1; US6079974A; EP0127520A1; GB2217829A; GB2217829B; EP0927854A3; EP0939275A3; EP0543155A1; US5303678A; CH684959A5; US4846665A; GB2457564A; GB2457564B; US6240731B1; US6412272B1; US8430665B2

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