Title (en)

Annular nozzle and process for its use.

Title (de)

Ringförmige Düse und Verfahren zu ihrer Anwendung.

Title (fr)

Buse annulaire et procédé pour son utilisation.

Publication

EP 0198700 A2 19861022 (EN)

Application

EP 86302759 A 19860414

Priority

US 72376785 A 19850416

Abstract (en)

A synthetic or fuel gas mixture containing hydrogen and carbon monoxide is made by the partial oxidation in a free-flowing hollow reactor of a slurry of solid carbonaceous fuel in a liquid carrier admixed with a gas containing free oxygen using a nozzle in which an annular slurry stream is enveloped between central and annular streams of high velocity gas. A uniform atomized admixture of solids, liquids and gases is formed by impinging the annular slurry stream on a downstream nozzle diffuser, and then transported through an exit orifice at an accelerated velocity to further atomize the admixture. The nozzle preferably has a slurry passageway (32) formed of two elongate segments (32a, 32b), the upstream segment (32a) being of greater cross-sectional area than the downstream segment (32b). The nozzle also is of general use in mixing a slurry with a gas.

IPC 1-7

C10J 3/46; C10J 3/48

IPC 8 full level

F23D 99/00 (2010.01); **C10J 3/46** (2006.01); **C10J 3/48** (2006.01)

CPC (source: EP KR)

C10J 3/50 (2013.01 - KR); **C10J 3/506** (2013.01 - EP); C10J 2200/152 (2013.01 - EP)

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US4887962A; EP0640679A1; CN102985516A; CN113917068A; EP0328794A1; US9982206B2; US8974557B2; WO2015198285A1; WO2012170641A1; US8784688B2; WO2011139199A1

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