

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  
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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.

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IPC 8 full level  
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CPC (source: EP KR)  
**C10J 3/50** (2013.01 - KR); **C10J 3/506** (2013.01 - EP); **C10J 2200/152** (2013.01 - EP)

Cited by  
US4887962A; EP0640679A1; CN102985516A; CN113917068A; EP0328794A1; US9982206B2; US8974557B2; WO2015198285A1;  
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