

Title (en)  
METHOD AND REACTOR FOR PRODUCING SYNTHESIS GAS FROM A CARBON AND HYDROGEN SOURCE IN THE PRESENCE OF AN OXY FLAME

Title (de)  
VERFAHREN UND REAKTOR ZUR HERSTELLUNG VON SYNTHESSEGAS AUS EINER KOHLENSTOFF- UND WASSERSTOFFQUELLE IN GEGENWART EINER OXYFLAMME

Title (fr)  
MÉTHODE ET RÉACTEUR POUR LA PRODUCTION DE GAZ DE SYNTHÈSE À PARTIR D'UNE SOURCE DE CARBONE ET D'HYDROGÈNE EN PRÉSENCE D'UNE OXY-FLAMME

Publication  
**EP 4161869 A1 20230412 (FR)**

Application  
**EP 21818956 A 20210603**

Priority  
• CA 3081971 A 20200604  
• CA 2021050761 W 20210603

Abstract (en)  
[origin: CA3166916A1] The technology relates to a method for producing synthesis gas comprising carbon monoxide (CO) and hydrogen (H<sub>2</sub>), in which method the synthesis gas is produced by a reduction reaction of a first flow comprising a carbon source and an excess of hydrogen in contact with an oxy flame. The hydrogen originates from a reducing stream a first portion of which is located in the first flow and a second portion of which is used to generate the oxy flame by combusting the hydrogen in the presence of a second flow comprising oxygen (O<sub>2</sub>), the second flow originating from an oxidising stream. The first flow and the second flow are at a distance from each other such that the oxy flame supports the reaction between the carbon source and the hydrogen. A reactor which can have different configurations is also proposed for implementing the method.

IPC 8 full level  
**C01B 3/02** (2006.01); **B01J 19/24** (2006.01); **C10L 3/00** (2006.01)

CPC (source: EP KR US)  
**B01J 4/002** (2013.01 - EP KR); **B01J 19/0006** (2013.01 - EP KR); **B01J 19/0013** (2013.01 - US); **B01J 19/2415** (2013.01 - US); **B01J 19/244** (2013.01 - EP KR); **C01B 3/02** (2013.01 - EP); **C01B 3/12** (2013.01 - US); **C01B 3/36** (2013.01 - EP KR); **C01B 3/363** (2013.01 - US); **C10G 2/32** (2013.01 - EP KR); **C10G 2/34** (2013.01 - US); **C10G 47/22** (2013.01 - EP KR); **C10K 3/008** (2013.01 - EP); **C10K 3/026** (2013.01 - EP KR US); **B01J 2219/00155** (2013.01 - EP); **B01J 2219/00157** (2013.01 - US); **B01J 2219/00159** (2013.01 - EP); **B01J 2219/00164** (2013.01 - EP); **C01B 2203/0238** (2013.01 - EP); **C01B 2203/0255** (2013.01 - KR US); **C01B 2203/0283** (2013.01 - US); **C01B 2203/0816** (2013.01 - KR); **C01B 2203/0822** (2013.01 - US); **C01B 2203/1241** (2013.01 - US); **Y02E 60/36** (2013.01 - EP); **Y02P 20/141** (2015.11 - EP)

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