

Title (en)  
SYNTHESIS GAS SYSTEM.

Title (de)  
SYSTEM ZUR ERZEUGUNG VON SYNTHESSEGAS.

Title (fr)  
SYSTEME DE PRODUCTION DE GAZ DE SYNTHESE.

Publication  
**EP 0070303 A4 19850902 (EN)**

Application  
**EP 82900725 A 19820119**

Priority  
US 22890881 A 19810127

Abstract (en)  
[origin: WO8202547A1] Method and apparatus for the production of synthesis gas from hydrocarbonaceous gases, wherein a hydrocarbonaceous gas is preheated, reacted with oxygen in the presence of steam, and quenched utilizing a rotating matrix comprising glassy ceramic fibers. After reaction with oxygen, the gases may be passed over a catalyst to further convert said hydrocarbonaceous gas to synthesis gas. Such method and apparatus is especially useful in a process for the production of methanol, wherein carbon dioxide in the synthesis gases is absorbed using crude methanol and recycled, by stripping the CO<sub>2</sub>-rich crude methanol with gas which has passed over catalyst for the conversion of synthesis gas to methanol under conversion conditions, thereby recycling and ultimately recovering as methanol yield carbon present in both carbon dioxide and unconverted methane present in said gases. This process requires neither the expensive reforming furnace nor the expensive synthesis gas compressors conventionally required in steam reforming methods, and uses much less oxygen than in conventional partial oxidation processes. This process is usefully augmented by additional methanol production by means of method and apparatus for partial oxidation, thereby comprising an even more highly efficient, integrated process for the production of methanol, wherein all methane carbon utilized by the combined process is converted to methanol except for about 7% which is required as fuel for power in efficiently separating the oxygen required from air and compressing it to operating pressure.

IPC 1-7  
**C07C 1/02**

IPC 8 full level  
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CPC (source: EP)  
**C01B 3/36** (2013.01); **C07C 29/1518** (2013.01); **C07C 29/157** (2013.01); **C07C 29/50** (2013.01); **F28D 19/045** (2013.01); **Y02P 20/10** (2015.11)

C-Set (source: EP)  
1. **C07C 29/1518 + C07C 31/04**  
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Citation (search report)  
No relevant documents have been disclosed

Designated contracting state (EPC)  
BE CH DE FR GB LI LU NL

DOCDB simple family (publication)  
**WO 8202547 A1 19820805**; AU 562541 B2 19870611; AU 8200882 A 19820816; BR 8205840 A 19830301; EP 0070303 A1 19830126; EP 0070303 A4 19850902; ES 509058 A0 19830401; ES 8305279 A1 19830401; IT 1190672 B 19880224; IT 8219323 A0 19820127; JP S58500126 A 19830120; NO 823211 L 19820923

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**US 8200060 W 19820119**; AU 8200882 A 19820119; BR 8205840 A 19820119; EP 82900725 A 19820119; ES 509058 A 19820126; IT 1932382 A 19820127; JP 50081182 A 19820119; NO 823211 A 19820923