

Title (en)

CHROMIUM-BASED CATALYSTS AND PROCESS FOR CONVERTING HYDROCARBONS TO SYNTHESIS GAS

Title (de)

CHROM-ENTHALTENDE KATALYSATOREN UND VERFAHREN ZUR KONVERTIERUNG VON KOHLENWASSERSTOFFEN ZU SYNTHESSEGAS

Title (fr)

CATALYSEURS A BASE DE CHROME ET PROCEDE DE CONVERSION D'HYDROCARBURES EN GAZ DE SYNTHESE

Publication

EP 1232115 A1 20020821 (EN)

Application

EP 00976867 A 20001102

Priority

- US 0030287 W 20001102
- US 16384399 P 19991105
- US 70370100 A 20001101

Abstract (en)

[origin: WO0134517A1] Processes and a new family of chromium-based catalysts for the catalytic conversion of hydrocarbons to carbon monoxide and hydrogen are disclosed. One highly active and selective catalyst system, providing greater than 95% CH₄ conversion, and 97-98 % selectivity to CO and H₂ at conversion-promoting conditions and high space velocity, is a chromium-containing catalyst consisting of a CoCr₂O₄ cubic spinel precursor dispersed in a chromium oxide matrix. The catalyst precursor is reduced to cobalt metal (in a chromium oxide matrix) in the reactant stream.

IPC 1-7

C01B 3/40; **C01B 3/38**; **B01J 23/26**; **B01J 23/68**

IPC 8 full level

B01J 23/10 (2006.01); **B01J 23/26** (2006.01); **B01J 23/68** (2006.01); **B01J 23/86** (2006.01); **B01J 37/32** (2006.01); **C01B 3/38** (2006.01); **C01B 3/40** (2006.01)

CPC (source: EP)

B01J 23/10 (2013.01); **B01J 23/26** (2013.01); **B01J 23/685** (2013.01); **B01J 23/86** (2013.01); **B01J 23/864** (2013.01); **B01J 23/866** (2013.01); **B01J 37/32** (2013.01); **C01B 3/386** (2013.01); **C01B 3/40** (2013.01); **C01B 2203/0261** (2013.01); **C01B 2203/1023** (2013.01); **C01B 2203/1029** (2013.01); **C01B 2203/1041** (2013.01); **C01B 2203/1052** (2013.01); **C01B 2203/1064** (2013.01); **C01B 2203/1076** (2013.01); **C01B 2203/1082** (2013.01); **C01B 2203/1094** (2013.01); **C01B 2203/1241** (2013.01); **Y02P 20/52** (2015.11)

Citation (search report)

See references of WO 0134517A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT

DOCDB simple family (publication)

WO 0134517 A1 20010517; AU 1458101 A 20010606; CA 2389802 A1 20010517; EP 1232115 A1 20020821

DOCDB simple family (application)

US 0030287 W 20001102; AU 1458101 A 20001102; CA 2389802 A 20001102; EP 00976867 A 20001102