

Title (en)
METHOD AND SYSTEM FOR THE PRODUCTION OF METHANOL

Title (de)
VERFAHREN UND ANLAGE ZUR HERSTELLUNG VON METHANOL

Title (fr)
PROCÉDÉ ET DISPOSITIF DE FABRICATION DE MÉTHANOL

Publication
EP 2328854 A1 20110608 (DE)

Application
EP 09777512 A 20090729

Priority

- EP 2009005484 W 20090729
- DE 102008049622 A 20080930

Abstract (en)
[origin: WO2010037441A1] In order to produce methanol from a syngas containing hydrogen and carbon oxides, the syngas is conducted through a first, preferably water-cooled reactor in which some of the carbon oxides are catalytically reacted to obtain methanol, and the obtained mixture containing syngas and methanol vapor is fed to a second, preferably gas-cooled reactor in which some more of the carbon oxides are reacted to obtain methanol. The mixture withdrawn from the first reactor is conducted through a gas/gas heat exchanger, in which the mixture is cooled to a temperature lying below the dew point of the mixture. Methanol is then separated from the gas stream and withdrawn in a methanol separator, while the remaining gas stream is fed to the second reactor.

IPC 8 full level
B01D 5/00 (2006.01); **B01J 8/04** (2006.01); **C07C 29/151** (2006.01); **C07C 31/04** (2006.01)

CPC (source: CN EP US)
B01D 5/009 (2013.01 - CN EP US); **B01D 5/0093** (2013.01 - CN EP US); **B01J 8/067** (2013.01 - CN EP US);
C07C 29/1516 (2013.01 - CN EP US); **B01J 2208/00274** (2013.01 - CN EP US); **B01J 2219/0004** (2013.01 - CN EP US)

Citation (search report)
See references of WO 2010037441A1

Citation (examination)

- EP 0152648 A1 19850828 - METALLGESELLSCHAFT AG [DE]
- EP 1210309 B1 20031203 - UHDE GMBH [DE]
- WO 2006018610 A1 20060223 - DAVY PROCESS TECHN LTD [GB], et al
- FRIEDRICH ASINGER: "Methanol - Chemie- und Energierohstoff - Die Mobilisation der Kohle", 1986

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
WO 2010037441 A1 20100408; CN 102171170 A 20110831; CN 105732313 A 20160706; CN 105732313 B 20181204;
DE 102008049622 A1 20100422; DE 102008049622 B4 20121031; EP 2328854 A1 20110608; US 2011178187 A1 20110721;
US 8629190 B2 20140114

DOCDB simple family (application)
EP 2009005484 W 20090729; CN 200980138538 A 20090729; CN 201610122132 A 20090729; DE 102008049622 A 20080930;
EP 09777512 A 20090729; US 200913121553 A 20090729