

Title (en)
GAS GENERATOR AND METHOD FOR GENERATING A TREATMENT GAS, WHICH CONTAINS CO AND H₂, FOR HEAT TREATING METALLIC MATERIAL

Title (de)
GASGENERATOR UND VERFAHREN ZUR ERZEUGUNG EINES CO- UND H₂-HALTIGEN BEHANDLUNGSGASES FÜR DIE WÄRMEBEHANDLUNG VON METALLISCHEM GUT

Title (fr)
GENERATEUR DE GAZ ET PROCEDE POUR PRODUIRE UN GAZ DE TRAITEMENT A BASE DE CO ET DE H₂ POUR LE TRAITEMENT THERMIQUE DE PRODUITS METALLIQUES

Publication
EP 1284924 A1 20030226 (DE)

Application
EP 01943324 A 20010505

Priority
• DE 10023409 A 20000512
• EP 0105092 W 20010505

Abstract (en)
[origin: WO0185607A1] The invention relates to a gas generator, especially for generating treatment gas containing CO and H₂, for heat treating metallic material at high temperatures. Said gas generator comprises at least one catalytic retort and has means for heating at least partial areas of the catalytic retort(s). According to the invention, the catalytic retort is divided into at least two retort areas (1, 2a, 2b, 2c) and at least one of the retort areas (1), preferably the retort area (1) located first in the direction of flow-through, is configured so that it can be removed from the gas generator. The invention also relates to a method for generating a treatment gas, which contains CO and H₂, for heat treating, especially for carburizing and hardening, metallic material at high temperatures in which the treatment gas is formed on the basis of the catalytic reaction of a hydrocarbon gas with carbon dioxide, oxygen and/or with a gas mixture containing oxygen, whereby the catalytic reaction is carried out in a catalytic retort. The invention also provides that the catalytic reaction is carried out in a catalytic retort that is divided into at least two retort areas (1, 2a, 2b, 2c).

IPC 1-7
C01B 3/38; B01J 8/04; B01J 7/00; C21D 1/76; C23C 8/20

IPC 8 full level
B01J 7/00 (2006.01); **B01J 8/04** (2006.01); **C01B 3/38** (2006.01); **C21D 1/76** (2006.01); **C23C 8/20** (2006.01)

CPC (source: EP US)
B01J 7/00 (2013.01 - EP US); **B01J 8/0453** (2013.01 - EP US); **B01J 8/0492** (2013.01 - EP US); **B01J 8/0496** (2013.01 - EP US); **C01B 3/384** (2013.01 - EP US); **C01B 3/386** (2013.01 - EP US); **C21D 1/763** (2013.01 - EP US); **C23C 8/20** (2013.01 - EP US); **B01J 2208/00026** (2013.01 - EP US); **B01J 2208/00106** (2013.01 - EP US); **B01J 2219/185** (2013.01 - EP US); **B01J 2219/1943** (2013.01 - EP US); **C01B 2203/0805** (2013.01 - EP US)

Citation (search report)
See references of WO 0185607A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
WO 0185607 A1 20011115; AU 6592801 A 20011120; DE 10023409 A1 20011115; EP 1284924 A1 20030226; US 2004088921 A1 20040513

DOCDB simple family (application)
EP 0105092 W 20010505; AU 6592801 A 20010505; DE 10023409 A 20000512; EP 01943324 A 20010505; US 27581803 A 20030617