

Title (en)
SYSTEM FOR GAS PROCESSING

Title (de)
GASVERARBEITUNGSSYSTEM

Title (fr)
SYSTÈME DE TRAITEMENT DE GAZ

Publication
EP 2454545 A2 20120523 (EN)

Application
EP 10730184 A 20100712

Priority
• EP 2010059971 W 20100712
• EP 09165304 A 20090713
• EP 10730184 A 20100712

Abstract (en)
[origin: WO2011006862A2] A power plant for the generation of electrical energy with a system (1) for processing flue gases resulting from a combustion of fossil fuels comprises, according to the invention, an adiabatic compressor (5) for a first low-pressure compression of the flue gases and a second multi-stage, low-pressure flue gas compression system (14) and a multi-stage, high-pressure CO₂ compression system (15), where both the low-pressure flue gas compression system and the high-pressure CO₂ compression systems are combined in one single machine (C2) and are arranged on one common shaft (16) driven by one common driver (17). A heat exchanger (8) facilitates an improved recovery of heat resulting from the cooling of the adiabatically compressed flue gases. The invention allows an improvement of the overall power efficiency of a power plant integrated with this processing system as well as a reduction of investment cost.

IPC 8 full level
F25J 3/02 (2006.01); **B01D 53/00** (2006.01); **F25J 3/06** (2006.01)

CPC (source: EP KR US)
B01D 53/00 (2013.01 - KR); **B01D 53/002** (2013.01 - EP US); **F25J 3/02** (2013.01 - KR); **F25J 3/0266** (2013.01 - EP US); **F25J 3/06** (2013.01 - KR); **F25J 3/067** (2013.01 - EP US); **B01D 2256/22** (2013.01 - EP US); **B01D 2257/302** (2013.01 - EP US); **B01D 2257/404** (2013.01 - EP US); **F25J 2210/70** (2013.01 - EP US); **F25J 2220/82** (2013.01 - EP US); **F25J 2230/06** (2013.01 - EP US); **F25J 2230/20** (2013.01 - EP US); **F25J 2230/30** (2013.01 - EP US); **F25J 2230/32** (2013.01 - EP US); **F25J 2230/80** (2013.01 - EP US); **F25J 2240/70** (2013.01 - EP US); **F25J 2240/90** (2013.01 - EP US); **F25J 2260/02** (2013.01 - EP US); **Y02C 20/40** (2020.08 - EP US); **Y02E 20/16** (2013.01 - EP US)

Citation (search report)
See references of WO 2011006862A2

Designated contracting state (EPC)
AL 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

DOCDB simple family (publication)
WO 2011006862 A2 20110120; WO 2011006862 A3 20120405; AU 2010272630 A1 20120209; AU 2010272630 B2 20151022; BR 112012000811 A2 20160223; CA 2767938 A1 20110120; CA 2767938 C 20140909; CN 102597672 A 20120718; CN 102597672 B 20150805; EP 2454545 A2 20120523; IL 217100 A0 20120229; JP 2012533025 A 20121220; KR 20120040710 A 20120427; MA 33510 B1 20120801; RU 2012104832 A 20130820; US 2012174622 A1 20120712; ZA 201109440 B 20130227

DOCDB simple family (application)
EP 2010059971 W 20100712; AU 2010272630 A 20100712; BR 112012000811 A 20100712; CA 2767938 A 20100712; CN 201080032347 A 20100712; EP 10730184 A 20100712; IL 21710011 A 20111220; JP 2012519990 A 20100712; KR 20127003576 A 20100712; MA 34607 A 20120207; RU 2012104832 A 20100712; US 201013383620 A 20100712; ZA 201109440 A 20111221