

Title (en)

INTEGRATED PROCESS FOR OXY-FUEL COMBUSTION AND PRODUCTION OF OXYGEN

Title (de)

INTEGRIERTES VERFAHREN ZUR SAUERSTOFF-BRENNSTOFF-VERBRENNUNG UND HERSTELLUNG VON SAUERSTOFF

Title (fr)

PROCÉDÉ INTÉGRÉ D'OXYCOMBUSTION ET DE PRODUCTION D'OXYGÈNE

Publication

EP 3087319 A1 20161102 (FR)

Application

EP 14830993 A 20141219

Priority

- FR 1363503 A 20131223
- FR 2014053478 W 20141219

Abstract (en)

[origin: WO2015097389A1] Process for heating via oxy-fuel combustion in which a stream of air (21) is heated by means of at least one portion of the residual heat present in the fuel gases (11) discharged from the combustion chamber (100), at least one portion of said hot air stream (22) is introduced into an oxygen production unit (20) in which a portion of the oxygen present in the hot air stream (22) is extracted by means of one or more ITM, with a first stream of oxygen (50) at high temperature being obtained, said first stream of oxygen (50) is mixed with a second stream of oxygen (60) so as to obtain a total stream of oxygen (70) at a lower temperature than that of the first stream of oxygen (50), at least one portion of the total stream of oxygen (70) being transported to the combustion chamber (100) and used within as oxygen-rich oxidizer.

IPC 8 full level

F23L 7/00 (2006.01); **C01B 13/02** (2006.01); **C03B 5/235** (2006.01); **F23D 14/66** (2006.01); **F23L 15/04** (2006.01)

CPC (source: EP KR US)

C01B 13/0255 (2013.01 - EP KR US); **C03B 5/2353** (2013.01 - EP KR US); **F23D 14/66** (2013.01 - EP KR US); **F23L 7/007** (2013.01 - EP KR US); **F23L 9/00** (2013.01 - EP US); **F23L 15/04** (2013.01 - EP KR US); **F23L 2900/07007** (2013.01 - EP US); **F23N 2221/06** (2020.01 - US); **Y02E 20/32** (2013.01 - KR); **Y02E 20/34** (2013.01 - EP KR US); **Y02P 20/10** (2015.11 - EP KR US); **Y02P 20/129** (2015.11 - EP KR US); **Y02P 40/50** (2015.11 - EP KR US); **Y02P 40/57** (2015.11 - EP KR US)

Citation (search report)

See references of WO 2015097389A1

Citation (examination)

- US 5888272 A 19990330 - PRASAD RAVI [US], et al
- JP 3068888 B2 20000724
- US 2004002030 A1 20040101 - SHAH MINISH MAHENDRA [US], et al

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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

FR 3015635 A1 20150626; **FR 3015635 B1 20190531**; BR 112016014489 A2 20170808; CN 105980776 A 20160928; EP 3087319 A1 20161102; JP 2017502245 A 20170119; KR 20160111380 A 20160926; MX 2016008291 A 20160909; US 10197274 B2 20190205; US 2016313001 A1 20161027; WO 2015097389 A1 20150702

DOCDB simple family (application)

FR 1363503 A 20131223; BR 112016014489 A 20141219; CN 201480074698 A 20141219; EP 14830993 A 20141219; FR 2014053478 W 20141219; JP 2016541125 A 20141219; KR 20167018986 A 20141219; MX 2016008291 A 20141219; US 201415107542 A 20141219