

Title (en)  
HARDENING CELL

Title (de)  
HÄRTEZELLE

Title (fr)  
CELLULE DE TREMPE

Publication  
**EP 2768990 A1 20140827 (FR)**

Application  
**EP 12790595 A 20121018**

Priority  
• FR 1159543 A 20111021  
• FR 2012052373 W 20121018

Abstract (en)  
[origin: WO2013057431A1] The invention relates to a cell (5) for quenching a charge (14) under an atmosphere of gas. The cell comprises a centrifugal or helico-centrifugal impeller (22A, 22B) comprising a gas intake opening and gas discharge openings. The impeller is rotated by a motor (24A, 24B) to cause a flow of the gas between the charge and a heat exchanger (32, 34). The quenching cell comprises first and second mobile half-scrolls (40A, 40B, 42A, 42B). In a first position, the first half-scroll guides the gas discharged by a first part of the discharge openings (78A) and the second half-scroll closes off a first portion of the intake opening (76A). In a second position, the second half-scroll guides the gas discharged by a second part, different from the first part, of the discharge openings and the first half-scroll shuts off a second portion of the intake opening.

IPC 8 full level  
**C21D 1/62** (2006.01); **C21D 1/767** (2006.01); **F27D 7/04** (2006.01); **F27D 9/00** (2006.01)

CPC (source: EP US)  
**C21D 1/62** (2013.01 - EP US); **C21D 1/767** (2013.01 - EP US); **F27D 7/04** (2013.01 - EP US); **F27D 9/00** (2013.01 - EP US); **F27D 2009/0072** (2013.01 - EP US); **F27D 2009/0075** (2013.01 - EP US); **F27D 2009/0089** (2013.01 - EP US)

Citation (search report)  
See references of WO 2013057431A1

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

DOCDB simple family (publication)  
**WO 2013057431 A1 20130425**; BR 112014009546 A2 20170418; BR 112014009546 B1 20180626; CN 104011229 A 20140827; CN 104011229 B 20150819; EP 2768990 A1 20140827; EP 2768990 B1 20160302; FR 2981665 A1 20130426; FR 2981665 B1 20131101; JP 2014534343 A 20141218; JP 6147261 B2 20170614; KR 102060674 B1 20191230; KR 20140098085 A 20140807; MX 2014004502 A 20150112; MX 356336 B 20180523; US 2014284851 A1 20140925; US 9365909 B2 20160614

DOCDB simple family (application)  
**FR 2012052373 W 20121018**; BR 112014009546 A 20121018; CN 201280063069 A 20121018; EP 12790595 A 20121018; FR 1159543 A 20111021; JP 2014536315 A 20121018; KR 20147013585 A 20121018; MX 2014004502 A 20121018; US 201214351941 A 20121018