

Title (en)  
A PROCESS FOR THE PRODUCTION OF CHLORINE DIOXIDE

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON CHLORDIOXID

Title (fr)  
PROCÉDÉ DE PRODUCTION DE DIOXYDE DE CHLORE

Publication  
**EP 1791784 A1 20070606 (EN)**

Application  
**EP 05778039 A 20050906**

Priority  

- SE 2005001288 W 20050906
- EP 04445100 A 20040924
- EP 05778039 A 20050906

Abstract (en)  
[origin: WO2006033609A1] The invention relates to a process for the continuous production of chlorine dioxide under non-crystallising conditions in at least two reaction vessels comprising the steps of feeding to a first reaction vessel alkali metal chlorate, a mineral acid and hydrogen peroxide to form an acidic reaction medium maintained in said first reaction vessel, reacting alkali metal chlorate, hydrogen peroxide and mineral acid in said reaction medium to form chlorine dioxide and alkali metal salt of the mineral acid, withdrawing chlorine dioxide from said reaction medium in said first reaction vessel as a gas, withdrawing depleted reaction medium comprising mineral acid, alkali metal chlorate and alkali metal salt of the mineral acid from said first reaction vessel and feeding it to a second reaction vessel, feeding hydrogen peroxide to the reaction medium in said second reaction vessel and maintaining said reaction medium therein at a concentration of alkali metal chlorate from about 9 to about 75 mmoles/litre, reacting alkali metal chlorate, hydrogen peroxide and mineral acid in said reaction medium to form chlorine dioxide and alkali metal salt of the mineral acid, withdrawing chlorine dioxide from said reaction medium in said second reaction vessel as a gas, and withdrawing depleted reaction medium comprising mineral acid and alkali metal salt of the mineral acid from said second reaction vessel.

IPC 8 full level  
**C01B 11/02** (2006.01)

CPC (source: EP KR)  
**C01B 11/02** (2013.01 - KR); **C01B 11/026** (2013.01 - EP)

Citation (search report)  
See references of WO 2006033609A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
HR YU

DOCDB simple family (publication)  
**WO 2006033609 A1 20060330**; AU 2005285645 A1 20060330; AU 2005285645 B2 20101216; BR PI0516016 A 20080819; BR PI0516016 B1 20181121; CA 2581318 A1 20060330; CA 2581318 C 20110315; CN 101031505 A 20070905; CN 103626131 A 20140312; EP 1791784 A1 20070606; JP 2008514535 A 20080508; JP 2012067007 A 20120405; JP 4913057 B2 20120411; KR 100916974 B1 20090914; KR 20070061894 A 20070614; MA 28944 B1 20071001; MX 2007002706 A 20070518; MY 145982 A 20120531; RU 2007115409 A 20081027; RU 2355626 C2 20090520; ZA 200702595 B 20080625

DOCDB simple family (application)  
**SE 2005001288 W 20050906**; AU 2005285645 A 20050906; BR PI0516016 A 20050906; CA 2581318 A 20050906; CN 200580032178 A 20050906; CN 201310240568 A 20050906; EP 05778039 A 20050906; JP 2007533425 A 20050906; JP 2011242676 A 20111104; KR 20077009258 A 20070424; MA 29844 A 20070423; MX 2007002706 A 20050906; MY PI20054489 A 20050923; RU 2007115409 A 20050906; ZA 200702595 A 20050906