

Title (en)
REACTOR AND METHOD OF CHLORINE DIOXIDE PRODUCTION

Title (de)
REAKTOR UND VERFAHREN ZUR HERSTELLUNG VON CHLORDIOXID

Title (fr)
REACTEUR ET PROCEDE DE PRODUCTION DE DIOXYDE DE CHLORE

Publication
EP 2234918 A4 20150225 (EN)

Application
EP 03738905 A 20030523

Priority
US 0314161 W 20030523

Abstract (en)
[origin: WO2005087657A1] A novel chlorine dioxide production apparatus, or reactor, is disclosed. The reactor receives reactants from two or more feed pipes under pressure, and the reactants react in a reaction chamber that operates under elevated pressure and within a specified temperature range. A gaseous product, such as chlorine dioxide, is generated and is released directly into a liquid stream for bleaching, disinfection, and other purposes. Also disclosed is a novel system for production of quantities of chlorine compounds from commercial grades of starting materials, and methods of using the reactor in situ for bleaching, and for disinfection, decontamination, and sterilization of flows of water or other liquids. An automated system for multiple points of addition of chlorine dioxide to a flow to be treated is also disclosed.

IPC 8 full level
C01B 11/02 (2006.01); **A61L 2/20** (2006.01); **B01J 3/04** (2006.01); **B01J 4/00** (2006.01); **B01J 8/00** (2006.01); **C02F 1/76** (2006.01); **G06G 7/58** (2006.01)

CPC (source: EP)
A61L 2/20 (2013.01); **C01B 11/024** (2013.01); **C02F 1/763** (2013.01); **C02F 2209/001** (2013.01); **C02F 2209/08** (2013.01); **C02F 2209/20** (2013.01); **C02F 2209/29** (2013.01); **C02F 2303/04** (2013.01)

Citation (search report)

- [X1] US 4234446 A 19801118 - RAMRAS DANIEL
- [X1] US 3816077 A 19740611 - ROSEN H, et al
- [I] EP 0119686 A1 19840926 - CALGON CORP [US]
- [X1] US 5855861 A 19990105 - LEE SUNGGYU [US]
- [X1] WO 0244089 A2 20020606 - ECOCHLOR INC [US]
- [I] US 5091107 A 19920225 - HUTCHINGS RICHARD S [US]
- [A] US 4659459 A 19870421 - O'LEARY RICHARD P [US], et al
- [A] US 5110580 A 19920505 - ROSENBLATT AARON [US], et al
- See references of WO 2005087657A1

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

DOCDB simple family (publication)
WO 2005087657 A1 20050922; WO 2005087657 A8 20051215; WO 2005087657 A9 20051027; AU 2003245268 A1 20050929; CA 2539984 A1 20050922; EP 2234918 A1 20101006; EP 2234918 A4 20150225; MX PA05012626 A 20060823

DOCDB simple family (application)
US 0314161 W 20030523; AU 2003245268 A 20030523; CA 2539984 A 20030523; EP 03738905 A 20030523; MX PA05012626 A 20030523