

Title (en)

METHOD AND REACTOR FOR DECALCIFYING AND SIMULTANEOUSLY REMOVING HARMFUL SUBSTANCES

Title (de)

VERFAHREN UND REAKTOR ZUM ENTKALKEN UND GLEICHZEITIGEM ENTFERNEN VON SCHADSTOFFEN

Title (fr)

PROCEDE ET REACTEUR POUR L'ADOUCCISSEMENT D'EAU ET L'ELIMINATION SIMULTANEE DE SUBSTANCES POLLUANTES

Publication

EP 1558531 A1 20050803 (DE)

Application

EP 03757920 A 20031007

Priority

- DE 10247686 A 20021012
- EP 0311076 W 20031007

Abstract (en)

[origin: WO2004035487A1] The invention relates to a method and a reactor for decalcifying and simultaneously removing harmful substances and disinfecting and killing permanent forms of parasites. Apparatus-related efforts and energy consumption are relatively important in prior art while the obtained results are often insufficient. The invention overcomes said flaws by the fact that the water is directly or indirectly heated in the treatment chamber, one or several horizontal plates having a perforated edge are fixed at a distance from the bottom and the side wall of the reactor within the lower area thereof so as to deflect the flow of water and receive residues, a gassing device is provided outside the reactor, said gassing device comprising a conduit which extends centrally into the reactor, ends below the plate/s, and encompasses a gas distributor, and the outlet is disposed between the reactor bottom and the plate/s if the reactor is operated in a discontinuous manner while said outlet is disposed above the plate/s if the reactor is operated in a continuous manner.

IPC 1-7

C02F 5/02; C02F 1/20; C02F 1/02

IPC 8 full level

C02F 1/02 (2006.01); **C02F 1/20** (2006.01); **C02F 5/02** (2006.01); C02F 1/00 (2006.01); C02F 1/74 (2006.01)

CPC (source: EP US)

C02F 1/02 (2013.01 - EP US); **C02F 1/20** (2013.01 - EP US); **C02F 5/025** (2013.01 - EP US); **C02F 1/74** (2013.01 - EP US);
C02F 2301/024 (2013.01 - EP US); C02F 2303/04 (2013.01 - EP US); C02F 2307/04 (2013.01 - EP US); Y02W 10/37 (2015.05 - EP US)

Citation (search report)

See references of WO 2004035487A1

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 2004035487 A1 20040429; AU 2003273955 A1 20040504; BR 0314968 A 20050802; CA 2498850 A1 20040429; CN 1703376 A 20051130;
DE 10247686 B3 20040422; EP 1558531 A1 20050803; JP 2006502845 A 20060126; US 2006151401 A1 20060713

DOCDB simple family (application)

EP 0311076 W 20031007; AU 2003273955 A 20031007; BR 0314968 A 20031007; CA 2498850 A 20031007; CN 200380101316 A 20031007;
DE 10247686 A 20021012; EP 03757920 A 20031007; JP 2004544095 A 20031007; US 53016305 A 20050404