

Title (en)
FLUID PURIFICATION DEVICES AND METHODS EMPLOYING DEIONIZATION FOLLOWED BY IONIZATION FOLLOWED BY DEIONIZATION

Title (de)
VORRICHTUNG ZUR REINIGUNG VON FLÜSSIGKEITEN UND VERFAHREN MIT DER SCHRIFTFOLGE :DEIONISIERUNG, IONISIERUNG, DEIONISIERUNG

Title (fr)
DISPOSITIFS ET PROCEDES DE PURIFICATION DE FLUIDE PAR LA DESIONISATION SUIVIE PAR L'IONISATION SUIVIE PAR LA DESIONISATION

Publication
EP 1027136 A1 20000816 (EN)

Application
EP 98930414 A 19980619

Priority
• US 9812823 W 19980619
• US 5037697 P 19970620

Abstract (en)
[origin: WO9858727A1] The invention provides the continuous, integrated methods and devices for substantially removing ionized and ionizable carbon compounds from an aqueous stream by first deionization step to produce a first product stream, ionizing nonionized and nonionizable carbon compounds in such stream to form further ionized and ionizable compounds, and removing the latter by a second deionization step. The method can be performed for example in an apparatus including an EDI unit (10), an ionizing unit (60), and EDI unit (100).

IPC 1-7
B01D 61/00; **B01D 15/00**

IPC 8 full level
B01D 61/02 (2006.01); **B01D 61/04** (2006.01); **B01D 61/44** (2006.01); **B01D 61/48** (2006.01); **B01J 47/08** (2006.01); **C02F 1/32** (2006.01); **C02F 1/44** (2006.01); **C02F 1/469** (2006.01); **C02F 1/72** (2006.01); **C02F 9/00** (2006.01); **C02F 1/78** (2006.01)

CPC (source: EP US)
B01D 61/026 (2022.08 - EP); **B01D 61/029** (2022.08 - US); **B01D 61/04** (2013.01 - EP); **B01D 61/44** (2013.01 - EP); **B01D 61/48** (2013.01 - EP); **B01J 47/08** (2013.01 - EP); **C02F 1/32** (2013.01 - EP); **C02F 1/441** (2013.01 - EP); **C02F 1/469** (2013.01 - EP); **C02F 1/725** (2013.01 - EP); **C02F 9/20** (2023.01 - EP); **B01D 2311/04** (2013.01 - EP); **C02F 1/4693** (2013.01 - EP); **C02F 1/4695** (2013.01 - EP); **C02F 1/722** (2013.01 - EP); **C02F 1/78** (2013.01 - EP)

C-Set (source: EP)
B01D 2311/04 + **B01D 2311/2619** + **B01D 2311/2626**

Designated contracting state (EPC)
CH DE FR GB IT LI

DOCDB simple family (publication)
WO 9858727 A1 19981230; EP 1027136 A1 20000816; EP 1027136 A4 20030514

DOCDB simple family (application)
US 9812823 W 19980619; EP 98930414 A 19980619