

Title (en)  
DEVICE AND METHOD FOR TREATING WATER WITH THE AID OF MEMBRANES

Title (de)  
VORRICHTUNG UND VERFAHREN ZUR WASSERAUFBEREITUNG MIT HILFE VON MEMBRANEN

Title (fr)  
SYSTEME ET PROCEDE DE TRAITEMENT DE L'EAU AU MOYEN DE MEMBRANES

Publication  
**EP 1701919 A1 20060920 (DE)**

Application  
**EP 04802742 A 20041117**

Priority  

- DE 2004002529 W 20041117
- DE 10353946 A 20031118
- DE 102004030637 A 20040624

Abstract (en)  
[origin: WO2005049500A1] The invention relates to a device for treating water, comprising a first chamber containing water with an increased normality, a second chamber containing water to be treated, said second chamber being coupled to the first chamber by means of a waterproof membrane and a third chamber for treated water, said chamber being coupled to the second chamber by means of a semi-permeable membrane. The invention also relates to a method for treating water. According to said method, starting in the first chamber of the device, containing water with an increased normality, pressure is exerted on the waterproof membrane, which couples the first chamber to the second chamber containing water to be treated, in such a way that the latter is forced through the semi-permeable membrane into the third chamber for treated water. The aim of the invention is to provide a device and a method of the aforementioned type, which operate in a highly efficient manner, independently of the type of water to be treated and which are also suitable for mobile applications. To achieve this, the waterproof membrane in the inventive device is configured as a bag, which consists of a flexible material and during use extends at least partially into the volume of the first chamber. In addition, the inventive method discloses that the bag-type waterproof membrane is introduced into the first chamber in such a way that the pressure of the salt water in said first chamber forces the bag-type membrane towards the second chamber.

IPC 8 full level  
**C02F 1/44** (2006.01); **B01D 61/00** (2006.01); **B01D 61/08** (2006.01); **B01D 61/10** (2006.01); **C02F 1/00** (2006.01)

CPC (source: EP)  
**B01D 61/00** (2013.01); **B01D 61/10** (2013.01); **C02F 1/002** (2013.01); **C02F 1/441** (2013.01); **C02F 1/444** (2013.01)

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

DOCDB simple family (publication)  
**WO 2005049500 A1 20050602**; EP 1701919 A1 20060920

DOCDB simple family (application)  
**DE 2004002529 W 20041117**; EP 04802742 A 20041117