

Title (en)

METHODS AND APPARATUS RELATING TO TREATMENT SYSTEMS USING LIGHT FOR THE TREATMENT OF FLUID PRODUCTS

Title (de)

VERFAHREN UND GERÄT IM ZUSAMMENHANG MIT BEHANDLUNGSSYSTEMEN UNTER VERWENDUNG VON LICHT ZUR BEHANDLUNG FLÜSSIGER PRODUKTE

Title (fr)

PROCEDES ET APPAREIL ASSOCIES A DES SYSTEMES DE TRAITEMENT UTILISANT LA LUMIERE POUR TRAITER DES PRODUITS FLUIDIQUES

Publication

EP 1404378 A1 20040407 (EN)

Application

EP 02734454 A 20020517

Priority

- US 0215611 W 20020517
- US 29185001 P 20010517
- US 97659701 A 20011012
- US 97677601 A 20011012

Abstract (en)

[origin: WO02092138A1] Methods and apparatus relating to treatment systems using a light treatment for treating products. In one implementation, a treatment system is provided that using a pulsed light treatment for the modification of a fluid product, for example, deactivating microorganisms. Methods and apparatus are further provided for precisely monitoring and collecting data relating to the light treatment in the treatment system. In one implementation, fluences of the light treatment are measured at multiple wavelengths across the spectrum of the light treatment. Additionally, methods and apparatus are provided for precisely controlling a light treatment and other operational system parameters of the treatment system. In one implementation, such control features include real-time automated feedback to ensure proper levels of treatment and system operation.

IPC 1-7

A61L 2/00; A61M 1/36; A61L 2/28; A61L 2/08; A61L 2/10; A61L 2/24

IPC 8 full level

G01N 21/05 (2006.01); **A61K 38/00** (2006.01); **A61K 38/43** (2006.01); **A61L 2/00** (2006.01); **A61L 2/08** (2006.01); **A61L 2/24** (2006.01); **A61L 2/28** (2006.01); **A61M 1/36** (2006.01); **B01J 19/12** (2006.01); **G01N 21/27** (2006.01); **G01N 21/33** (2006.01); **G01N 21/35** (2014.01); **G01N 21/359** (2014.01)

CPC (source: EP US)

A61L 2/0011 (2013.01 - EP); **A61L 2/08** (2013.01 - EP); **A61L 2/10** (2013.01 - EP US); **A61L 2/24** (2013.01 - EP); **A61L 2/28** (2013.01 - EP); **A61M 1/3681** (2013.01 - EP); **A61L 2202/14** (2013.01 - EP); **A61L 2202/22** (2013.01 - EP); **A61M 2205/75** (2013.01 - EP)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 02092138 A1 20021121; EP 1404378 A1 20040407; EP 1404378 A4 20041208; JP 2004533318 A 20041104

DOCDB simple family (application)

US 0215611 W 20020517; EP 02734454 A 20020517; JP 2002589054 A 20020517