

Title (en)

A SYSTEM AND METHOD FOR TREATING WATER SYSTEMS WITH HIGH VOLTAGE DISCHARGE AND OZONE

Title (de)

SYSTEM UND VERFAHREN FÜR WASSERAUFBEREITUNGSSYSTEME MIT HOHER SPANNUNGSENTLADUNG UND OZON

Title (fr)

SYSTÈME ET PROCÉDÉ PERMETTANT DE TRAITER DES HYDROSYSTÈMES AVEC UNE DÉCHARGE DE TENSION ÉLEVÉE ET DE L'OZONE

Publication

**EP 3134353 A4 20171122 (EN)**

Application

**EP 15783085 A 20150424**

Priority

- US 201461983685 P 20140424
- US 201461983678 P 20140424
- US 2015027540 W 20150424

Abstract (en)

[origin: CN106232528A] A system and method for treating flowing water systems with a plasma discharge to remove or control growth of microbiological species. Components of the water system are protected from being damaged by excess energy from the electrohydraulic treatment. Ozone gas generated by a high voltage generator that powers the plasma discharge is recycled to further treat the water. A gas infusion system may be used to create fine bubbles of ozone, air, or other gases in the water being treated to aid in plasma generation, particularly when the conductivity of the water is high. An electrode mounting assembly maintains a high voltage electrode and ground electrode at a fixed distance from each other to optimize plasma generation. An open support structure for the high voltage generator circuit physically separates spark gap electrodes and resists metal deposits that may disrupt discharge of a high voltage pulse to create the plasma.

IPC 8 full level

**C02F 1/48** (2006.01); **B01J 19/08** (2006.01); **C02F 1/46** (2006.01); **C02F 1/78** (2006.01); **H03K 3/537** (2006.01); **H05H 1/48** (2006.01)

CPC (source: EP US)

**C02F 1/4608** (2013.01 - EP); **C02F 1/78** (2013.01 - EP); **H01J 37/32** (2013.01 - US); **H03K 3/537** (2013.01 - EP); **C02F 2103/023** (2013.01 - EP); **C02F 2201/46135** (2013.01 - EP); **C02F 2201/46175** (2013.01 - EP); **C02F 2209/05** (2013.01 - EP); **C02F 2305/023** (2013.01 - EP)

Citation (search report)

- [XY] DE 102011014329 B3 20120705 - EISENMANN AG [DE]
- [YA] US 2013062314 A1 20130314 - CURRY RANDY D [US], et al
- [YA] GB 1133643 A 19681113 - ASS ELECT IND
- See references of WO 2015164760A1

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EP3684731A4; US11091376B2

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CN 106232528 A 20161214; CN 106232528 B 20191022; EP 3134353 A1 20170301; EP 3134353 A4 20171122

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