Title (en)

OZONATION APPARATUS FOR WATER TREATMENT

Title (de)

OZONIERUNGSAPPARAT ZUR WASSERBEHANDLUNG

Title (fr)

APPAREIL DE TRAITEMENT DE L'EAU A L'OZONE

Publication

EP 1037857 A1 20000927 (EN)

Application

EP 97941687 A 19970917

Priority

US 9716558 W 19970917

Abstract (en)

[origin: WO9914163A1] The object of the present invention is a water treatment apparatus (10) that integrates an ozone generator (18), CT and storage tanks and a microcontroller (14). Raw water from a municipal or private water supply is passed through a pretreatment filter (54) to the CT chamber where ozone is dissolved in the water to kill bacteria, viruses and other microorganism. Ozone is manufactured in an ozone generator (18), pumped to the CT chamber where it is forced through a diffuser (38) and past a sonic wave generator (40) to increase the mass transfer efficiency. A degassing and ozone destruct mechanism (42) removes ozone enriched air from the CT chamber and destroys the ozone prior to release of the air into the environment. Water in the CT chamber is treated at a specified level of ozone concentration for a predetermined period of time to assure that microorganisms are killed. Treated water is pumped into biologically static storage tank which is protected from airborne contaminants by a blanket of ozone enriched air gap (84) in the blanket, to the storage tank where it is held for dispensing. It can be recirculated into the CT chamber for retreatment when required due to recontamination.

IPC 1-7

C02F 1/78; C02F 1/36

IPC 8 full level

C02F 1/36 (2006.01); **C02F 1/78** (2006.01); **C02F 9/00** (2006.01)

CPC (source: EP)

C02F 1/36 (2013.01); **C02F 1/78** (2013.01); **C02F 9/20** (2023.01)

Citation (search report)

See references of WO 9914163A1

Cited by

CN109231702A

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 9914163 A1 19990325; AU 4354697 A 19990405; EP 1037857 A1 20000927

DOCDB simple family (application)

US 9716558 W 19970917; AU 4354697 A 19970917; EP 97941687 A 19970917