



US010070628B2

(12) **United States Patent**  
**Calabrese**

(10) **Patent No.:** **US 10,070,628 B2**  
(45) **Date of Patent:** **Sep. 11, 2018**

(54) **MARINE AQUARIUM WATER PURIFICATION AND SALINITY CONTROL APPARATUS AND METHOD**

USPC ..... 119/215, 245, 259; 210/416.2, 293, 210/167.21

See application file for complete search history.

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 297 days.

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(21) Appl. No.: **14/944,493**

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(22) Filed: **Nov. 18, 2015**

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(65) **Prior Publication Data**

US 2017/0135324 A1 May 18, 2017

(Continued)

(51) **Int. Cl.**  
**A01K 61/00** (2017.01)  
**A01K 63/04** (2006.01)  
**B01D 29/00** (2006.01)  
**C02F 1/00** (2006.01)  
**C02F 1/44** (2006.01)  
**C02F 1/42** (2006.01)  
**C02F 9/00** (2006.01)

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(Continued)

(52) **U.S. Cl.**  
CPC ..... **A01K 63/04** (2013.01); **A01K 61/00** (2013.01); **A01K 63/045** (2013.01); **A01K 63/047** (2013.01); **C02F 1/006** (2013.01); **C02F 1/008** (2013.01); **C02F 1/283** (2013.01); **C02F 1/42** (2013.01); **C02F 1/441** (2013.01); **C02F 9/00** (2013.01); **C02F 2101/12** (2013.01); **C02F 2209/05** (2013.01); **C02F 2209/42** (2013.01); **C02F 2307/00** (2013.01)

(57) **ABSTRACT**

A water salinity control apparatus for a marine aquarium includes a filter section in which the water from a utility water supply is purified and deionized. A reservoir section includes a purified water reservoir for purified water, a salt-mixed water reservoir in which marine water at the setpoint salinity is stored, and a salt concentrate reservoir which contains fully salt-saturated water. A pump section includes pumps for pumping water from the salt-mixed water reservoir into the aquarium and for pumping water from the purified water reservoir to the aquarium. A control system adjusts the salinity of the water in the salt-mixed water reservoir and the salinity of the water in the marine aquarium. The control system receives input from salinity measuring probes that measure the salinity in the salt-mixed water reservoir and the salinity of the water of the marine aquarium.

(58) **Field of Classification Search**  
CPC ..... A01K 63/04; A01K 61/00; A01K 63/045; C02F 2209/40; C02F 3/006; C02F 2209/42; C02F 1/006; C02F 1/008; C02F 1/283; C02F 1/42; C02F 1/441

**9 Claims, 3 Drawing Sheets**

