



(12) **United States Patent**
Baltussen et al.

(10) **Patent No.:** **US 9,409,133 B2**
(45) **Date of Patent:** **Aug. 9, 2016**

(54) **ASSEMBLY FOR THE PRODUCTION OF DISPERSIONS**

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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 451 days.

(21) Appl. No.: **13/990,825**

(22) PCT Filed: **Dec. 9, 2011**

(86) PCT No.: **PCT/EP2011/072262**

§ 371 (c)(1),
(2), (4) Date: **May 31, 2013**

(87) PCT Pub. No.: **WO2012/076675**

PCT Pub. Date: **Jun. 14, 2012**

(65) **Prior Publication Data**

US 2013/0242687 A1 Sep. 19, 2013

(30) **Foreign Application Priority Data**

Dec. 9, 2010 (GB) 1020923.7

(51) **Int. Cl.**

B01F 5/10 (2006.01)

B01F 3/12 (2006.01)

(Continued)

(52) **U.S. Cl.**

CPC **B01F 3/1271** (2013.01); **B01F 3/1221**
(2013.01); **B01F 5/0065** (2013.01);

(Continued)

(58) **Field of Classification Search**

CPC B01F 5/0065

USPC 366/136, 165.1-165.5

See application file for complete search history.

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ABSTRACT

An assembly for the production of dispersions including a mixing unit (7) and a circulation tank (1) for holding liquid, the mixing unit (7) including a first solid inlet (8) for receiving a solid, a second liquid inlet for receiving the liquid, a mixing chamber where the liquid and solid are mixed, and a return outlet (13), the liquid inlet is fluidly connected to the circulation tank (1) such that liquid in the circulation tank flows to the mixing unit (7) via a circulation tank outlet (4), the return outlet (15) transferring the combined liquid and solid from the mixing chamber (7) into the circulation tank (1) via a circulation tank inlet. The circulation tank has an interior height which is configured such that a chamber exists inside the tank above the level of the liquid. Alternatively, the circulation tank inlet is permanently positioned above the liquid level or it includes a pipe configured such that the dispersion forms a film on its inner surface. Alternatively, the circulation tank includes an impeller having a diameter equal to or greater than 0.5 times the internal diameter of the tank.

13 Claims, 4 Drawing Sheets

