

## Title (en)

Device for generating and handling nanobubbles

## Title (de)

Vorrichtung zur Erzeugung und Verarbeitung von Nanoblasen

## Title (fr)

Dispositif de génération et de manipulation de nanobulles

## Publication

**EP 2995369 A1 20160316 (EN)**

## Application

**EP 14386022 A 20140911**

## Priority

EP 14386022 A 20140911

## Abstract (en)

The present invention discloses an apparatus for generating microbubbles, nanobubbles and ultra-nanobubbles, and a methodology for collecting said bubbles. The device is consisted of three generators (G 1 ,G 2 ,G 3 ); the two of them (G 2 ,G 3 ) have a rotating porous plug head (201,301). For the production of ultra-nanobubbles, the corresponding generator has a piston (306) which oscillates the liquid back and forth over a fractal porous medium (301) (fractal pump) (Fig. 1 301). Nanobubbles have many potential industrial applications including many biological ones. They can be collected by using fine powders. In specific, by using dietary powders such as medicinal charcoal, zeolite, etc, nanobubbles become ready for human ingestion.

## IPC 8 full level

**B01F 5/06** (2006.01); **B01F 3/04** (2006.01); **B01F 13/10** (2006.01)

## CPC (source: EP US)

**B01F 23/2323** (2022.01 - EP); **B01F 23/2373** (2022.01 - EP); **B01F 23/2375** (2022.01 - EP US); **B01F 23/29** (2022.01 - EP); **B01F 25/4512** (2022.01 - EP); **B01F 25/4522** (2022.01 - EP); **B01F 33/821** (2022.01 - EP)

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## Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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## DOCDB simple family (publication)

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## DOCDB simple family (application)

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