



(51) International Patent Classification:

B01L 3/00 (2006.01) *G01N 1/00* (2006.01)
B01L 9/00 (2006.01) *C12Q 1/6806* (2018.01)
B01L 7/00 (2006.01) *C12Q 1/686* (2018.01)

(21) International Application Number:

PCT/EP2023/058348

(22) International Filing Date:

30 March 2023 (30.03.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

22165559.0 30 March 2022 (30.03.2022) EP

(71) Applicant: **BLINK AG** [DE/DE]; Brüsseler Str. 20, 07747 Jena (DE).

(72) Inventors: **ERMANTRAUT, Eugen**; Ziegenhainer Oberweg 54, 07749 Jena (DE). **WOLFF, Alrik**; Glockenbecherweg 18, 99425 Weimar (Tiefurt) (DE). **LONCAREVIC BARCENA, Ivan**; Katharinenstr. 13, 07743 Jena (DE).

BOCKER, Hartmut; Nollendorfer Str. 32, 07743 Jena (DE). **WAGNER, Cornelius**; Jahnstr. 24, 07743 Jena (DE). **SCHULZ, Torsten**; Franz-Kugler-Str. 8, 07749 Jena (DE).

(74) Agent: **ENGELHARD, Markus**; Boehmert & Boehmert Anwaltspartnerschaft mbB, Pettenkoferstraße 22, 80336 München (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, CV,

(54) Title: A METHOD FOR ARRANGING MICROSPHERES IN A NON-AQUEOUS LIQUID PHASE

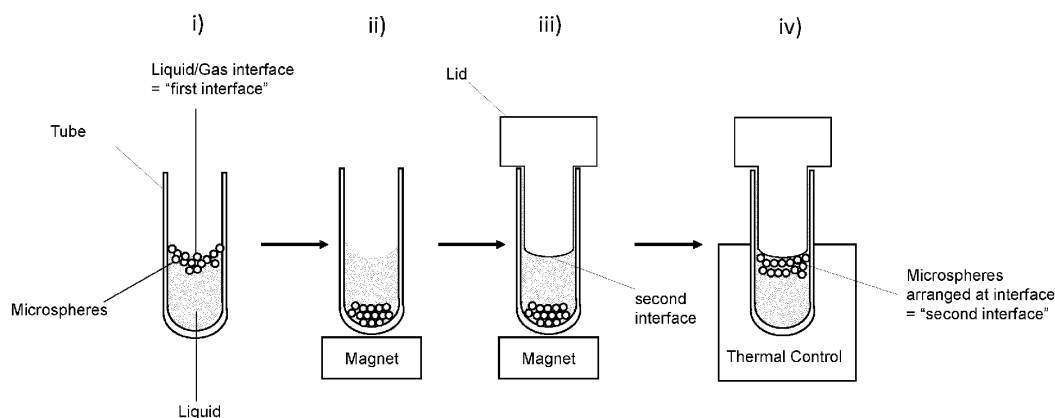


Figure 1

(57) Abstract: The present invention relates to a method for arranging microspheres in a non-aqueous, water-immiscible liquid phase in an incubation chamber and for excluding such microspheres from contact with or exposure to a gas phase. It also relates to a method for incubating microspheres, as well as to a method for detecting and optically probing microspheres. Moreover, the present invention also relates to a multi-well plate configured to be used in a such method(s). Furthermore, the present invention relates to a device for arranging microspheres in a non-aqueous, water-immiscible liquid phase in an incubation chamber and for excluding such microspheres from contact with or exposure to a gas phase. Furthermore, the present invention also relates to a device for incubating microspheres, as well as to a device for detecting and optically probing microspheres.

[Continued on next page]

GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*