

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
11 May 2023 (11.05.2023)



(10) International Publication Number
WO 2023/079286 A3

(51) International Patent Classification:

C12M 1/00 (2006.01) C12M 1/21 (2006.01)

(21) International Application Number:

PCT/GB2022/052773

(22) International Filing Date:

03 November 2022 (03.11.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2115814.2 03 November 2021 (03.11.2021) GB

(71) Applicant: **COLORIFIX LTD** [GB/GB]; Innovation Centre, Norwich Research Park, Colney Lane, Norwich NR4 7GJ (GB).

(72) Inventors: **AJIOKA, James W.**; C/O Colorifix Ltd, Innovation Centre, Norwich Research Park, Colney Lane, Nor-

wich NR4 7GJ (GB). **SA, Rui**; C/O Colorifix Ltd, Innovation Centre, Norwich Research Park, Colney Lane, Norwich NR4 7GJ (GB). **YARKONI, Orr**; C/O Colorifix Ltd, Innovation Centre, Norwich Research Park, Colney Lane, Norwich NR4 7GJ (GB).

(74) Agent: **TITMUS, Craig**; Mathys & Squire, The Shard, 32 London Bridge Street, London SE1 9SG (GB).

(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, 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,

(54) Title: BIOREACTOR APPARATUS

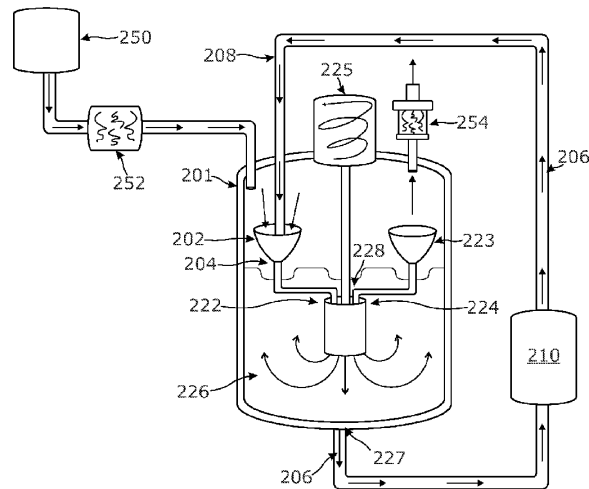


Figure 2

(57) Abstract: Bioreactor apparatus and methods for bioreactor processing are disclosed. A bioreactor apparatus has a vessel for containing liquid media and a head space gas and a Venturi pump assembly. The Venturi pump assembly has a media outlet conduit; a media inlet conduit; a pump device, configured to draw media from the vessel through the media outlet conduit and pass it to the media inlet conduit; and a foam collector member. The foam collector member has a mouth portion disposed within the vessel at a liquid media surface position; and a narrowed throat portion. The media inlet conduit is adapted to direct pumped media through the throat portion of the foam collector member, to generate therein a region of reduced pressure for aspirating surface foam into the mouth portion of the foam collector member.

[Continued on next page]

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, GH, GM, KE, LR, LS, MW, MZ, NA, RW, 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))*

(88) Date of publication of the international search report:

13 July 2023 (13.07.2023)