

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 February 2023 (23.02.2023)



(10) International Publication Number
WO 2023/021213 A1

(51) International Patent Classification:
C12M 1/12 (2006.01) B01D 63/02 (2006.01)

(21) International Application Number:
PCT/EP2022/073261

(22) International Filing Date:
19 August 2022 (19.08.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/234,796 19 August 2021 (19.08.2021) US

(71) Applicant: **MERCK PATENT GMBH** [DE/DE]; Frank-
furter Strasse 250, 64293 Darmstadt (DE).

(72) Inventors: **DICKER, Kevin T.**; c/o Sigma Aldrich Co,
LLC, 3050 Spruce Street, St Louis, Missouri 63103 (US).
SYLVIA, Ryan; c/o EMD Millipore Corporation, 400
Summit Drive, Burlington, Massachusetts 01803 (US).
SCHNITZLER, Aletta; c/o EMD Millipore Corporation,
400 Summit Drive, Burlington, Massachusetts 01803 (US).
PATEL, Jaivin; c/o EMD Millipore Corporation, 400 Sum-

mit Drive, Burlington, Massachusetts 01803 (US). **CERA,
Luca**; c/o EMD Millipore Corporation, 400 Summit Drive,
Burlington, Massachusetts 01803 (US).

(74) Agent: **GRAHAM WATT & CO LLP**; St Botolph's
House, 7-9 St Botolph's Road, Sevenoaks Kent TN13 3AJ
(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, ME, 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,
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, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,

(54) Title: METHOD OF MANUFACTURE FOR EDIBLE, POROUS CROSS-LINKED HOLLOW FIBERS AND MEMBRANES
BY PH INDUCED PHASE SEPARATION AND USES THEREOF

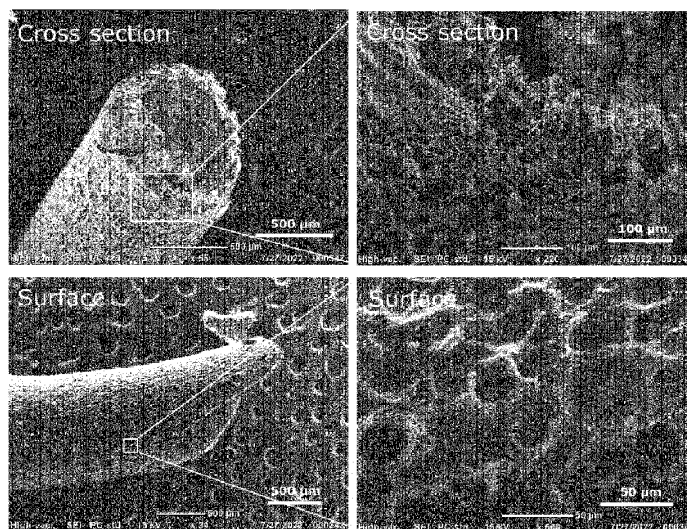


Figure 33

(57) Abstract: A method of manufacture of crosslinked, edible, porous hollow fibers and sheet membranes suitable for the manufacture of clean meat products, the hollow fibers and sheet membranes made therefrom and methods of use thereof.

[Continued on next page]

WO 2023/021213 A1

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, 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))*