

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
17 November 2022 (17.11.2022)



(10) International Publication Number
WO 2022/238244 A1

(51) International Patent Classification:

C08L 89/00 (2006.01) *C08L 29/04* (2006.01)

B65D 65/00 (2006.01)

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))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(21) International Application Number:

PCT/EP2022/062215

(22) International Filing Date:

05 May 2022 (05.05.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

21173061.9 10 May 2021 (10.05.2021) EP

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(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, 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, 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).

(54) Title: BIOPLASTICS BASED ON AMYLOID FIBRILS AND BIODEGRADABLE POLYMERS

(57) Abstract: The present invention relates to novel methods to manufacture composite materials comprising amyloid fibrils and a biodegradable polymer. The methods described herein prove to be environmentally friendly and allow the use of starting materials of low quality / purity. Specifically, amyloid fibrils may be obtained from food waste. The invention further provides for novel composite materials comprising specific amyloid fibrils and a biodegradable polymer, to articles comprising such composite materials and to the use of such composite materials. The composite materials described herein show unexpected beneficial properties, when compared to the individual constituents. These beneficial properties include improved mechanical properties, improved biodegradation, improved antioxidant properties, and beneficial optical properties.



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