

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
04 November 2021 (04.11.2021)



(10) International Publication Number
WO 2021/221567 A1

(51) International Patent Classification:

A01G 24/10 (2018.01) A01G 24/35 (2018.01)
A01G 24/20 (2018.01)

(21) International Application Number:

PCT/SG2021/050235

(22) International Filing Date:

28 April 2021 (28.04.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/016,299 28 April 2020 (28.04.2020) US

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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, IR, IS, IT, 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).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))
— in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(54) Title: KERATIN-BASED SUBSTRATE AND METHODS OF FORMING THE SAME

(57) Abstract: The present disclosure refers to a keratin-based substrate, comprising a keratin derivative and natural biopolymer, where the keratin derivative and natural biopolymer are crosslinked. The present disclosure also refers to a method of forming a keratin-based substrate, comprising (i) mixing a solution of keratin derivative with a solution of natural biopolymer; and (ii) drying the resulting solution of step (i) to obtain the keratin-based substrate. The present disclosure further relates to the use of the substrate as a plant growth medium or hydroponic support medium. In a preferred embodiment, a substrate comprising keratin intermediate filament protein and cellulose nanofibers is provided.



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