



(51) International Patent Classification:

A23L 5/20 (2016.01) A23J 1/00 (2006.01)

A23K 10/10 (2016.01)

(21) International Application Number:

PCT/SG2022/050452

(22) International Filing Date:

29 June 2022 (29.06.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10202109747U 06 September 2021 (06.09.2021) SG

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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,

(54) Title: A METHOD FOR GOSSYPOL DETOXIFICATION AND NUTRIENT ENRICHMENT

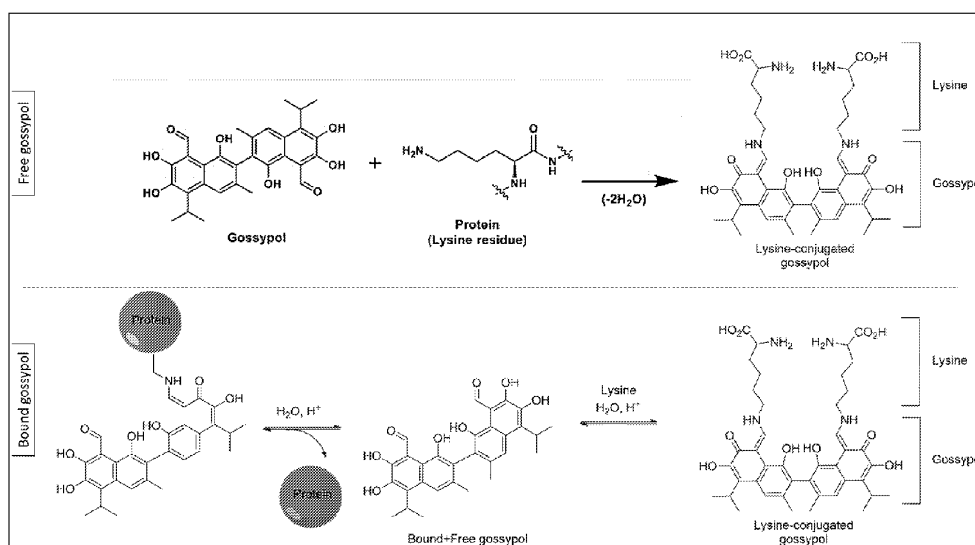


Fig. 1

(57) **Abstract:** The present invention provides a method of removing gossypol from one or more plant parts, comprising incubating a mixture of the one or more plant parts with an acidified amino acid solution, wherein amino acid comprises more than one nitrogen-containing functionality. The acidified amino acid solution comprises an acid, an amino acid and a solvent. In an embodiment, the solvent is an organic solvent. In another embodiment, the plant is cotton. In a further embodiment, the amino acid is selected from the group consisting of lysine, arginine, methionine, serine, histidine and mixtures thereof. There is also provided a protein isolate having a total gossypol content of less than 250 ppm.

[Continued on next page]

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))*

— *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))*