(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :28/12/2022

(21) Application No.202231076035 A
(43) Publication Date : 30/12/2022

(54) Title of the invention : ISOLATION OF CELLULOSIC NANOFIBRILS FROM ALLIUM CEPA L SKIN OBTAINED FROM FOOD RESIDUES

(51) International classification :D21H0011180000, B82Y0030000000, C08J0005180000, A61K0036896200, B09B0003000000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention relates to isolation of cellulosic nanofibrils from Allium Cepa L (onion) skin obtained from food residues. Food processing biowaste is an underutilised source of value-added products. Extracting valuable elements from it reduces waste disposal and provides useful materials for other uses. CNF's nano size, ease of fabrication, low cost, customizable surface qualities, and increased mechanical properties make it useful in films, coatings, paints, foams, and packaging. Using chlorination and alkali extraction, CNF is extracted from onion skin leftovers. Characterizing the isolated cellulose nanofibers' structure and characteristics. With 43.4% cellulose, 15.1% hemicelluloses, and 39.3% lignin, it's a good source for CNF extraction. Peaks at 2907 cm1 confirmed the presence of C-H elongation stretching vibration in the -CH2 functional group, showing the material's purity. Accompanied Drawing [FIG. 1]

No. of Pages : 29 No. of Claims : 6