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## (54) Title of the invention : A PROCESS OF PREPARATION OF NANOPOROUS PHYTO-MEMBRANE FROM SEAWEEDS FOR WATER ULTRAFILTRATION AND PRODUCT THEREOF

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(57) Abstract :

TITLE: A PROCESS OF PREPARATION OF NANOPOROUS PHYTO- MEMBRANE FROM SEAWEEDS FOR WATER ULTRAFILTRATION AND PRODUCT THEREOF APPLICANT: ANNAMALAI UNIVERSITY ABSTRACT The present invention discloses a process of preparation of nanoporous phyto-membrane from seaweeds for water ultrafiltration comprises of following steps; a. extraction of Sodium Alginate from Padina pavoniva followed by purification to form Sodium Alginate; b. isolation of phlorotanin, a phenolic compound, from Turbinaria decurrens; c. conversion of the phlorotanin in to resol; d. characterized in formation of nanoporous phyto-membrane comprises of mixing the Sodium Alginate and resol in 2:1 ratio and stirring at 450C for 1 hour followed by pouring into well plate of 20mm width and drying at 700C for 6 hours to form nanoporous phyto-membrane. The present invention also discloses a nanoporous phyto-membrane from seaweeds for water ultrafiltration prepared by the process as described above.

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