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(71) Applicant: NATIONAL UNIVERSITY OF SINGAPORE [SG/SG]; 21 Lower Kent Ridge Road, Singapore 119077 (SG).

(72) Inventors: ZHAO, Dan; c/o National University of Singapore, Faculty of Engineering / Department of Chemical and Biomolecular Engineering, 21 Lower Kent Ridge Road, Singapore 119077 (SG). YANG, Hao; c/o National University of Singapore, Faculty of Engineering / Department of Chemical and Biomolecular Engineering, 21 Lower Kent Ridge Road, Singapore 119077 (SG). WU, Jie; c/o National

University of Singapore, Faculty of Science / Department of Chemistry, 21 Lower Kent Ridge Road, Singapore 119077 (SG). XU, Jinhui; c/o National University of Singapore, Faculty of Science / Department of Chemistry, 21 Lower Kent Ridge Road, Singapore 119077 (SG).

(74) Agent: DAVIES COLLISON CAVE ASIA PTE. LTD.; 10 Collyer Quay #07-01, Ocean Financial Centre, Singapore 049315 (SG).

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(54) Title: COVALENT ORGANIC FRAMEWORK MEMBRANES, METHODS AND USES THEREOF

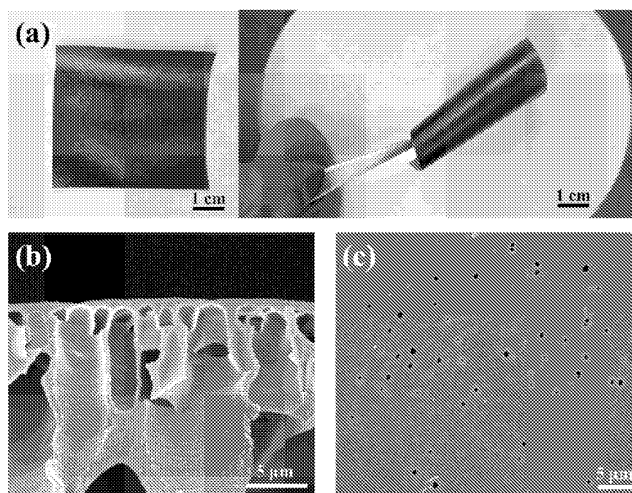


Figure 1

(57) Abstract: This disclosure concerns a method of forming a covalent organic framework (COF) membrane, comprising forming a membrane substrate by impregnating a porous polymer with a pore-forming agent in order to form an impregnated polymer, at least partially carbonising the impregnated polymer at a temperature of about 150 °C to about 500 °C in order to form the membrane substrate, and interfacially polymerising amino monomers and acyl monomers on a surface of the membrane substrate in order to form the COF membrane. The membrane substrate is characterised by a crystallinity of about 10% to about 70% relative to the porous polymer. The disclosure also concerns the COF membrane thereof, and the use of the COF membrane in catalyst recovery.

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