

Facile preparation of pectin nanoporous network structure

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Pectin, a polysaccharide, mainly extracted from shells of apple or orange, is one of the most prominent biomedical materials due to its biocompatibility, anti-oxidation property and strong mechanical property. Herein, we demonstrate a facile means to form a nanoporous network structure of pectin nanowires via a phase-separation process induced by adding a poor solvent into a pectin solution in a good solvent, that is, water. From this method, we obtained a pectin film with about 200nm diameter pores, which can be potentially applied to tissue engineering for cell culture, charge separation membranes, and cosmetics. This work was funded by NRF-2013R1A1A2058816 and NRF-2014M2B2A4031389.