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Authors: You Wei Chen, Hwei Voon Lee

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ACCEPTED MANUSCRIPT

Revalorization of Selected Municipal Solid Wastes as New Precursors of "Green"

Nanocellulose via a Novel One-Pot Isolation System: A Source Perspective

You Wei Chen, Hwei Voon Lee*

Nanotechnology & Catalysis Research Centre (NANOCAT), Institute of Postgraduate

Studies, University of Malaya, 50603 Kuala Lumpur, Malaysia

*Corresponding author; Email: leehweivoon@um.edu.my;

Tel: +603-7967 6954, Fax: +603-7957 6956

Highlights

• A new and novel one-pot oxidative hydrolysis process has been developed for the

facile production of nanocellulose.

• Four types of nanocellulose were successfully isolated from new potential sources,

namely Panax ginseng, spent tea residue, waste cotton cloth and old corrugated

cardboard.

• Waste cotton cloth derived nanocellulose rendered the highest crystallinity (83.6%)

and better thermal stability (339 °C) than the others.

• Nanocellulose extracted from *Panax ginseng* possessed the smallest fiber width (15.6

 \pm 4.5 nm) with high cellulose content (92.6%).

• The nanocellulose yield obtained in this study was ranged from 24.6 to 69.3%.

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