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Authors: Saranya Jongarootaprangsee, Naphaporn Chiewchan, Sakamon Devahastin



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Production of nanofibrillated cellulose with superior water redispersibility from lime residues via a chemical-free process

Saranya Jongarootaprangsee^a, Naphaporn Chiewchan^{a,*} and Sakamon Devahastin^{a,b}

^aAdvanced Food Processing Research Laboratory, Department of Food Engineering, Faculty of Engineering, King Mongkut's University of Technology Thonburi, 126 Pracha u-tid Road, Bangkok 10140, Thailand

^bThe Academy of Science, The Royal Society of Thailand, Dusit, Bangkok 10300, Thailand

**Corresponding author*

E-mail: naphaporn.rat@kmutt.ac.th

Highlight

- The feasibility of using lime residues to produce dried NFC was investigated.
- NFC was produced using autoclaving, high-shear and high-pressure homogenization.
- NFC having diameters of 5-28 nm could be obtained without the use of chemicals.
- Dried NFC could retain their original characteristics and properties.
- Pectin associated with NFC helped prevent fiber aggregation during drying.

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