

Modified Cellulose Nanofibers for Making Superhydrophobic Surfaces and Coatings

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Categories:

- Chemistry and Chemical Analysis
- Green Technology

Keywords:

- Analytical Chemistry
- Biofouling
- Cellulose
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- Green Technology
- Nanofibers
- Nanomaterials
- Nanoscale
- Surface Chemistry
- Waterproof

Researchers at Purdue University have created an efficient way to prepare abrasion resistant, self-healing Cellulose Nanofibers (CNF). The process of manufacturing these microscale cellulose nanofibers (mCNF) does not involve use of harmful chemicals, and is scalable. These mCNF can improve cleaning cost for a variety of applications from manufacturing and agriculture to sports gear and even medical devices. Surfaces and coatings using mCNF are easier to clean and are able to retain desired properties after repeated use.

Advantages:

- Easy cleaning
- Green technology
- Mechanically strong
- Regenerative surface layer
- Abrasion resistant

Potential Applications:

- Surface cleaning and drying
- Water repellent surfaces

People:

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Intellectual Property:

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