

Surface-modified cellulose nanomaterial

Available mass produced by a simple method without using a modifier

Overview

Cellulose nanomaterial, which is lighter and stronger than steel, is expected to replace an inorganic material as filler. On the other hand, when the cellulose nanomaterial is used as the filler, it is necessary to modify the surface of the cellulose nanomaterial. This technology related to a surface-modified cellulose nanomaterial (SMCN) obtained by sequentially carrying out living radical copolymerization of two kinds of monomers on the surface of a hydrophilic cellulose.

[Effect]

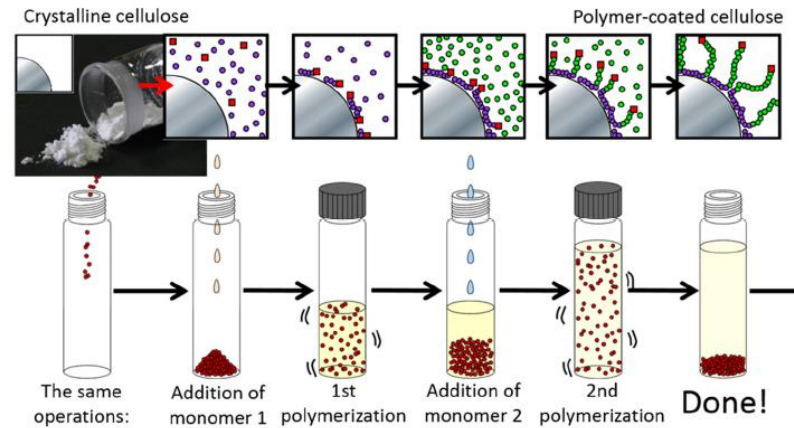
- SMCN can be mass produced easily and inexpensively.
- Since no modifier is used, SMCN does not contain an impurity derived from a modifier and can sufficiently exhibit the inherent physical properties and functions.

Product Application

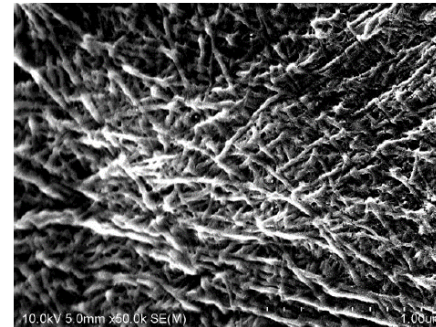
- Filler in plastic
- Material for high proton conductivity electrolyte membrane
- Material for water electrolysis membrane

IP Data

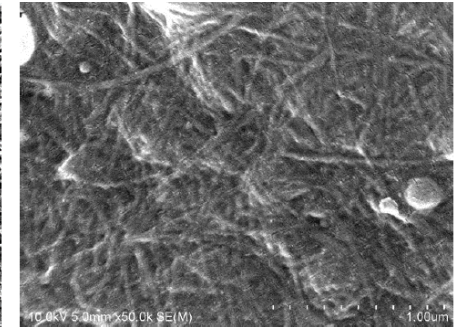
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Surface-modification of cellulose nanomaterial



Before modification



After modification

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