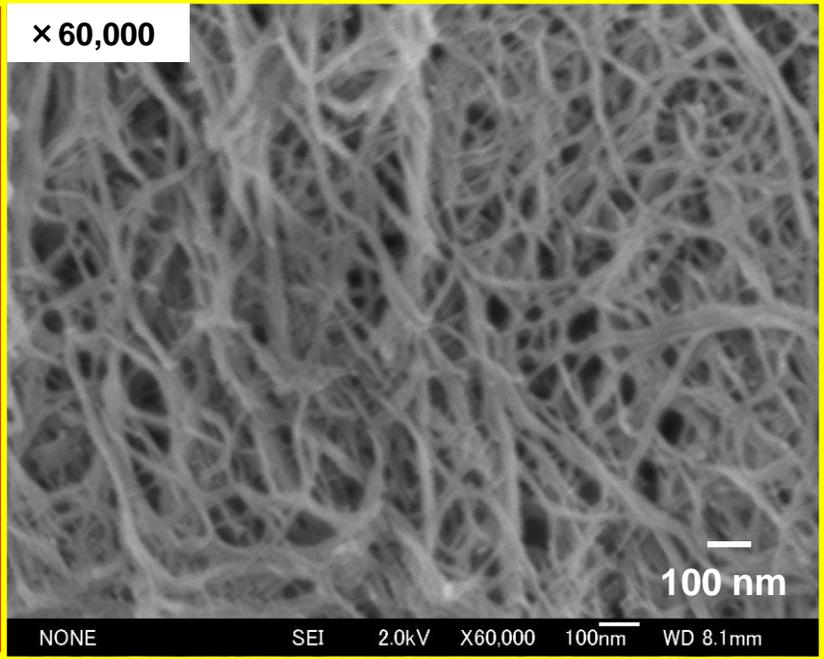
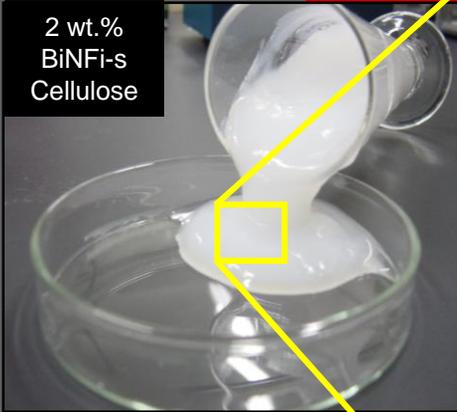


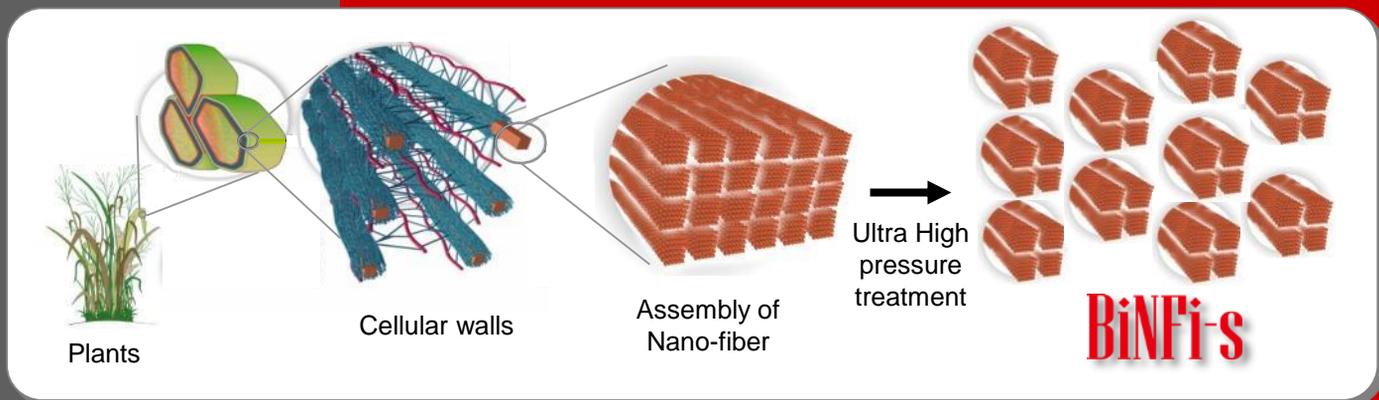
Biomass Nano-fiber

BiNFi-s



BiNFi-s is biomass nano-fiber which is produced by our ultra high pressure water jet technology. It made from biomass like cellulose, chitin and chitosan. The size is about 0.02 μm width and several μm length in average. BiNFi-s has low-thermal expansion, high elasticity, transparency, biocompatibility, antibacterial and improvement for organism functions.

There are many applications for chemical, electronic, medical and other industries.



Characteristics

High Strength

Low Thermal Expansion

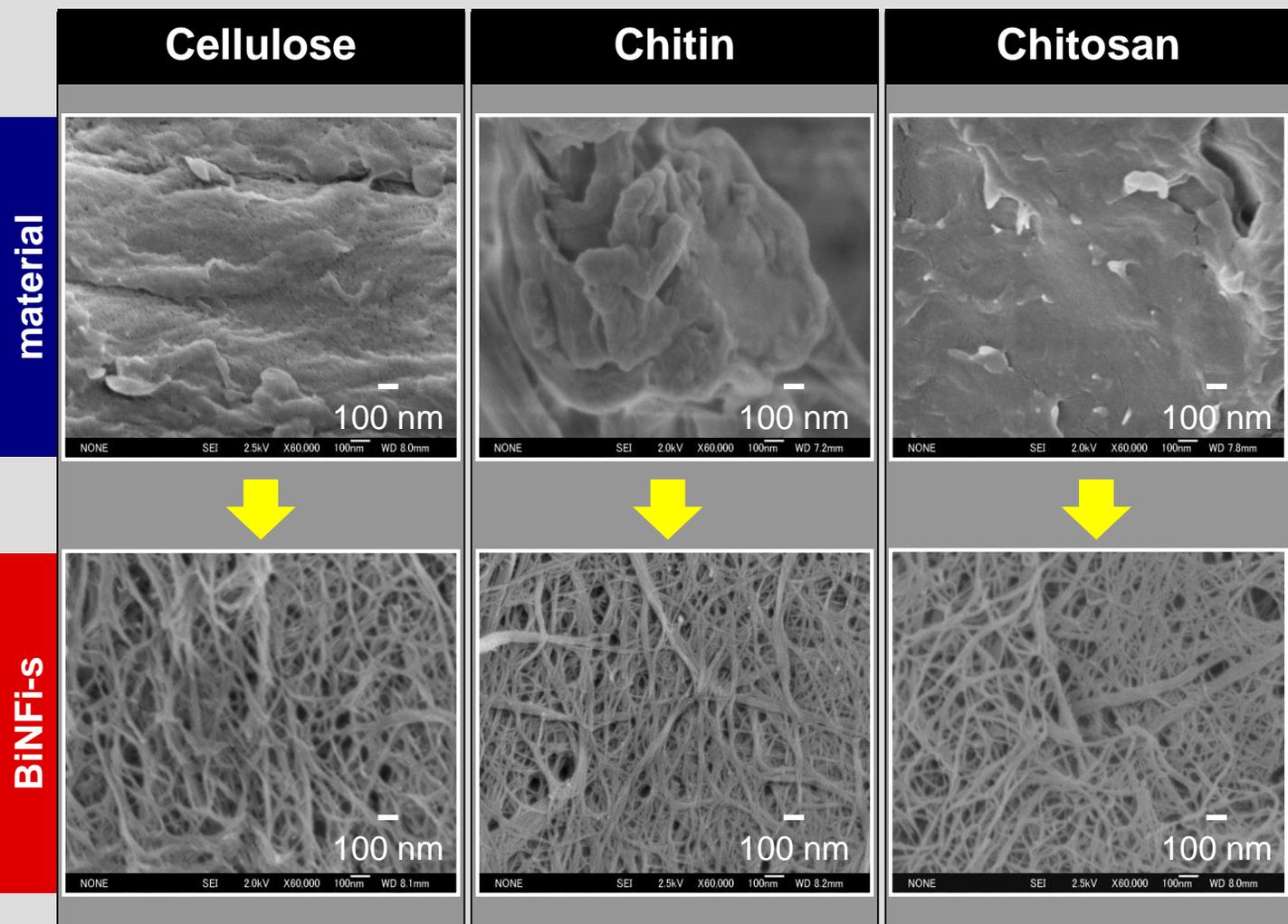
High Crystallinity

Easily Film Formation

Transparency

Environmental Harmony

Photograph by electron microscope



Physical properties

	BiNF-i-s Cellulose			BiNF-i-s Chitin			BiNF-i-s Chitosan		
	2	5	10	2	5	10	2	5	10
Concentration (wt.%)	2	5	10	2	5	10	2	5	10
Viscosity (mPa·s)	3,000 over	20,000 over	70,000 over	3,000 over	30,000 over	70,000 over	800 over	18,000 over	70,000 over
Specific surface area (m ² /g)	100~200*			200			80		
Polymerization degree	200~550*			300			480		

* The value is different as raw material grade

Applications

- Chemical : Filler for polymers, Transparent substrate
- Electronic : Electrode, Conduction adjuvant
- Fiber : Reinforcement, Binder, Absorbent
- Cosmetic : Base material, Keep moisturizing
- Food : Low calorie material, Shape retention
- Medical : Biocompatible material, Tissue engineering

Contact information



2410 Hongo, Uozu-city Toyama, 937-8511 Japan

TEL +81-765-24-5118 FAX +81-765-24-5119

URL: <http://www.sugino.com> E-mail: rd@sugino.com

(Prague branch office) Phone: +420 257 950 228 Email: info@sugino.cz