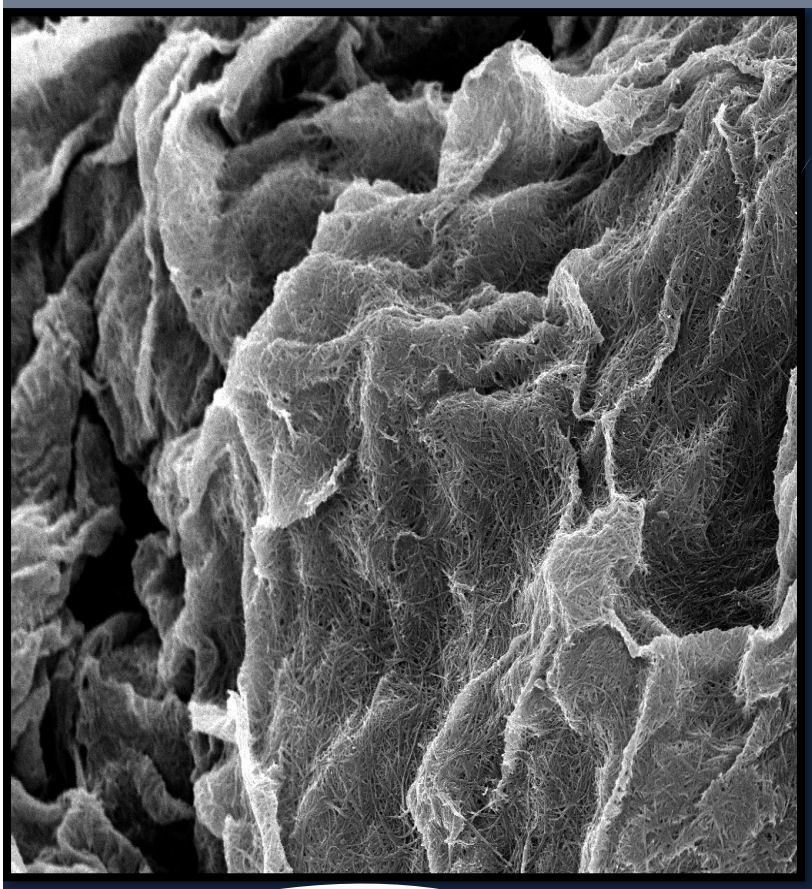
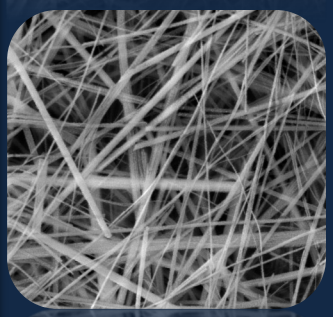
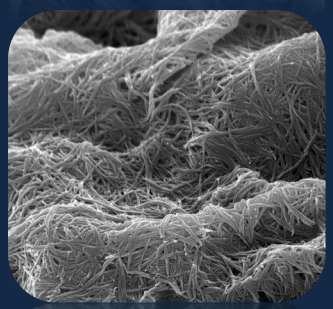
Titanate Nanofibers — *Titan*











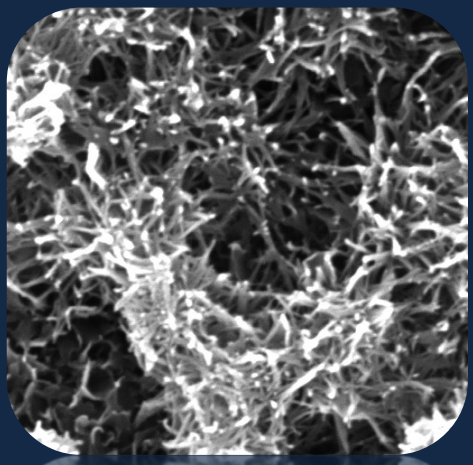
Nanomatronix utilizes several novel techniques for the production of a variety of inorganic and organic nanostructures. Multiple product releases will occur over the next few months, including a variety of refined, nanostructured (0D, 1D and 2D): metal-oxides, metal -oxide intermediates, carbon nanotubes (CNTs) and a variety of synthetic and organic polymer nanofibers. Initially, our refined nanomaterials will be available in small batch quantities for sampling, evaluation and product development. Our nanomaterials production capability and products also serve to supply our internal materials integration, prototyping and product development activities.

Nanomatronix, LLC

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Titanate Nanofiber Membrane



Titanate Nanofibers—surface coating on Ti seed metal

Highlights

- Low-Cost
- Thermally Stable
- Ion Exchangeable
- Multi-functional

Overview

Titanate nanofibers are synthesized through a patented hydrothermal process. We prepare sodium and potassium intercalated titanate nanofibers via this process with proprietary post-processing resulting in protonated (H^+) nanofibers.

Technical/Material Specifications

Specifications

	Titan-Na (sodium titanate)	Titan-K (potassium titanate)	Titan-H (hydrogenated titanate)
Chemical Composition	$Na_2Ti_3O_7$	$K_2Ti_3O_7$	$H_2Ti_3O_7$
Purity	~95%*	~95%*	~95%*

*Purity and composition will be analyzed and confirmed with fresh batch synthesis

Applications

- Catalysis/UV-Photocatalysis
- Chemical Separations
- Ceramics
- Anti-microbial
- Bio-scaffolding

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