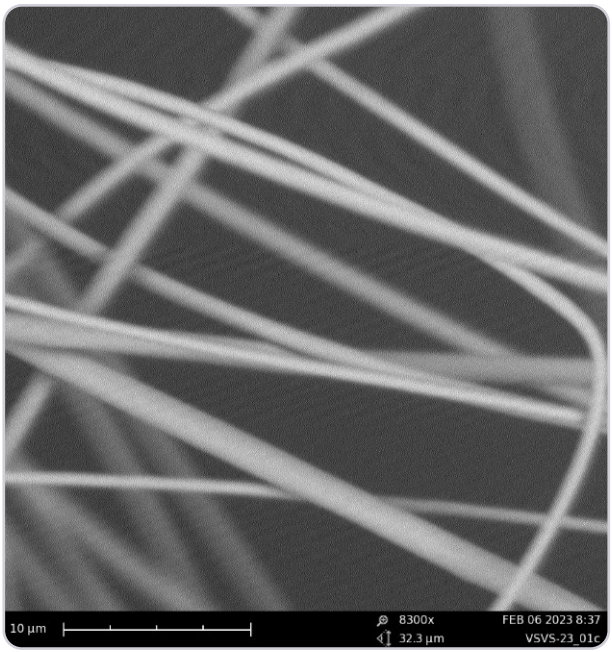
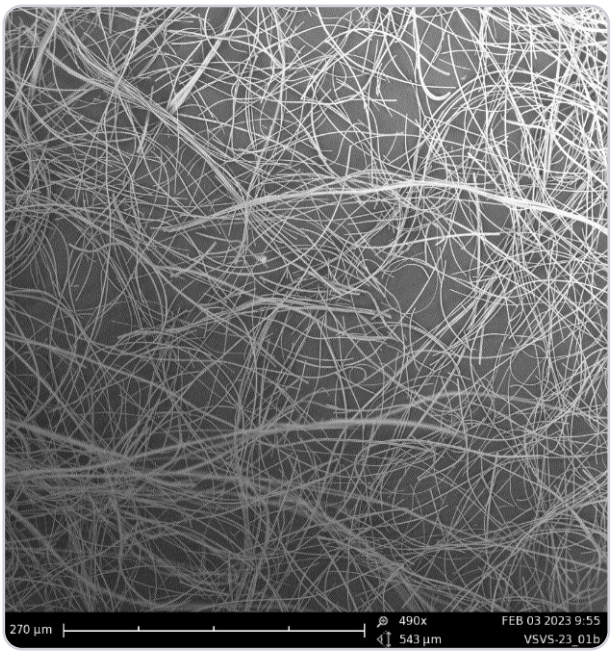
NnF CERAM® - WO_3

Tungsten trioxide nanofibres are a ceramic material developed and produced by PARDAM NANO4FIBERS s.r.o. in the Czech Republic. These products are based on a ceramic tungsten trioxide matrix enriched with a small amount of porous particles of the same material. The combination of nanofibrous morphology and specific properties of tungsten trioxide predispose WO3 to a wide range of applications in various industries. WO3 nanofibers can also be used as a carrier for various catalytic nanoparticles (e.g., Pt, Pd, Ag, Fe), which are incorporated into the porous structure of the nanofibers in a single manufacturing step, without the need for subsequent coating.



APPLICATIONS

- Gas sensors
- Photocatalysis and catalysis
- Photodetectors
- LED diodes
- Photochromic glasses



Žižkova 2759, 413 01, Roudnice n/L, Czech Republic | IČ: 25268694
+420 565 552 610 | info@pardam.cz

PHYSICAL PROPERTIES

Nanofibrous structure	High melting point - 1473, becomes crystalline by strong annealing
Crystal phase	Amorphous SiO2
Form and structure	3D structure
Typical fiber diameter	600 nm - 1600 nm (±100 nm)
Fiber length	2 to hundreds of µm Fiber length can be modified by grinding to a dimension of 2 - 12 µm (80%). If you need any material modification, please do not hesitate to contact us.
Specific surface area	5 - 15 m^2/g
Melting point	1 473 °C
Thermal conductivity	Low thermal conductivity 1,63 Wm-1K-1
Electrical properties	Electrochromic properties
Optical properties	Specific optical properties

MATERIAL DOPING

Tungsten trioxide nanofibers can be doped with various additives to optimize its specific properties.

IMPORTANT NOTICE

All statements, technical information and recommendations in this document are based on tests carried out by the team of PARDAM NANO4FIBERS s.r.o.

Žižkova 2759, 413 01, Roudnice n/L, Czech Republic | IČ: 25268694
+420 565 552 610 | info@pardam.cz