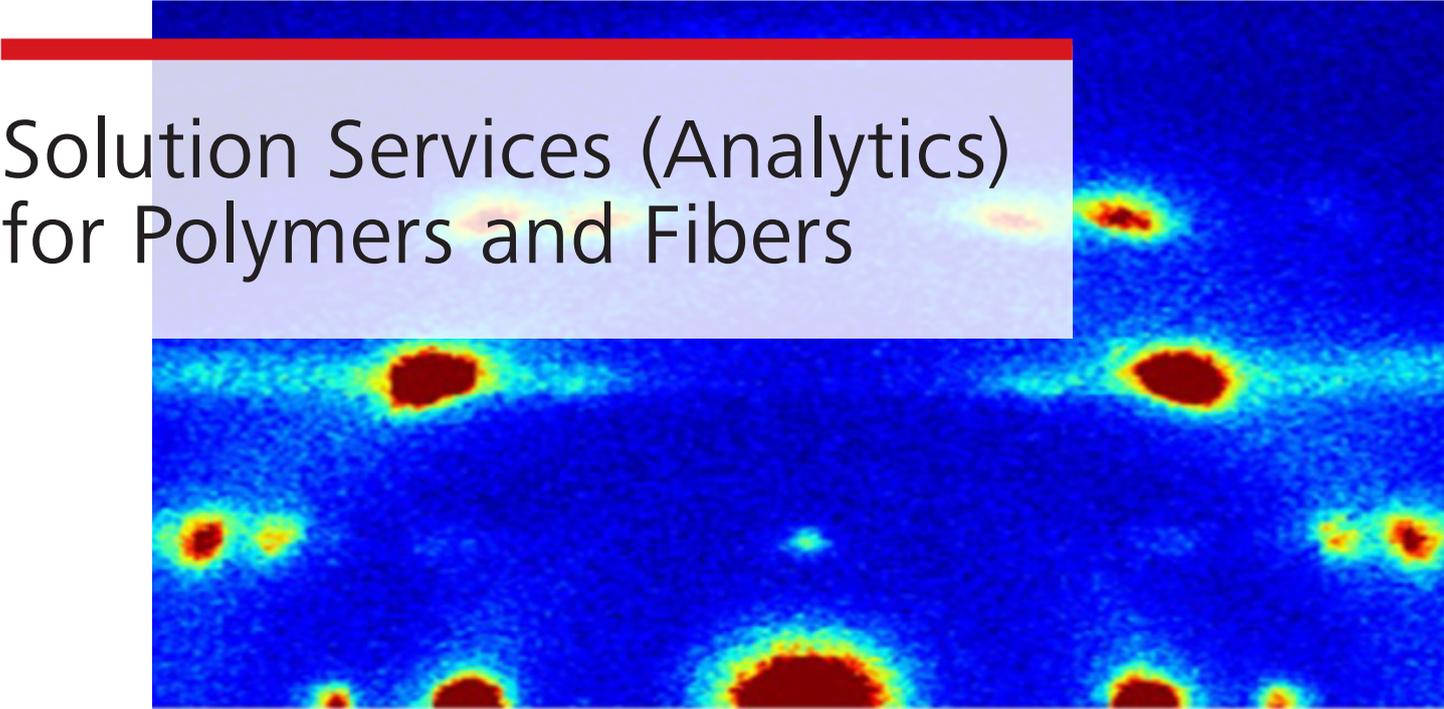


To develop innovative products, it is often necessary to have solid data from analytics. Our laboratory of Advanced Fibers at Empa maintains a unique park of instruments and lab facilities for our applied research projects. In combination with our expertise in the area of polymer processing, additive chemistry and surface treatments, we can support you with analytics for the solution of material problems. Our analytics are particularly suitable for customers with requests for non-routine analysis during development of new materials.



Solution Services (Analytics) for Polymers and Fibers

Solution Services

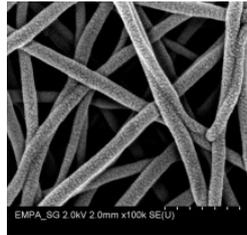
Contact Person

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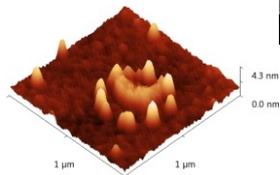


Our tailor-made analytic support covers measurement series for non-trivial material characterization, initial assessment of a material problem as well as more comprehensive investigations of a defined polymer or surface case.

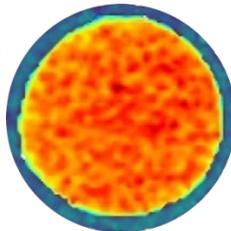
SEM of nanofibers



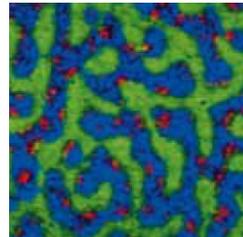
Microscopy of liquid filled fibers



AFM picture of nano islands



Raman mapping of fibers and films



Surface analytics

Investigation of morphology, particle sizes, cross-sections, roughness, local mechanical properties, layer thickness, chemical composition, elemental distribution.

- Optical microscopy
- Scanning electron microscopy (SEM)
- Energy dispersive X-ray analysis (EDX)
- Atomic force microscopy (AFM)
- X-ray photoelectron spectroscopy (XPS)

Polymer characterization

Identification, crystallinity, orientation and sizes of crystals, functional groups.

- Infrared spectroscopy (IR)
- Raman spectroscopy
- X-ray diffraction (WAXD, SAXS)
- Thermogravimetric analysis (TGA)
- Differential scanning calorimetry (DSC)
- Rheology

Find all of our info sheets on fiber and textile research at Empa online: <https://www.empa.ch/web/s401/s402/flyer>