

In research and education, we focus on the **design and synthesis of functional materials and materials systems** using plasma-assisted vapor deposition methods, on **advanced ex- and in-situ characterization methods**, and on **materials testing under extreme conditions**. We drive materials based innovations for a sustainable future!

Chair of Functional Materials and Materials Systems



Christian Mitterer



Nina Schalk



Rostislav Daniel

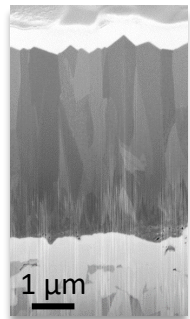


Michael Tkadletz



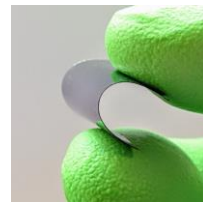
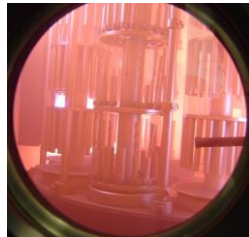
Verena
Maier-Kiener

Plasma-assisted materials synthesis



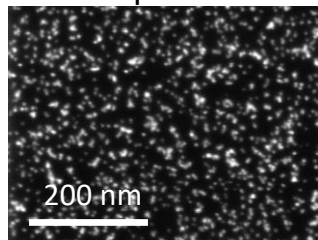
TiN hard coating

PLASMA

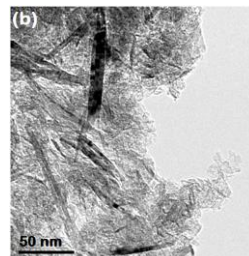


Flexible
electronics

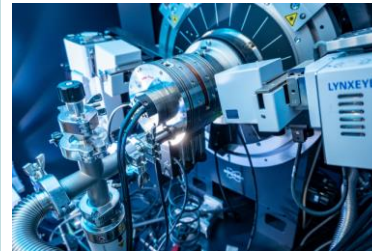
Cu nanoparticles



Few-layer
graphene



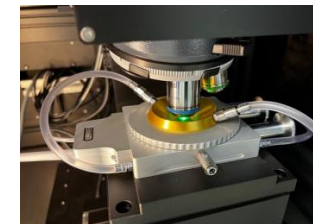
X-ray diffraction



Atom probe tomography



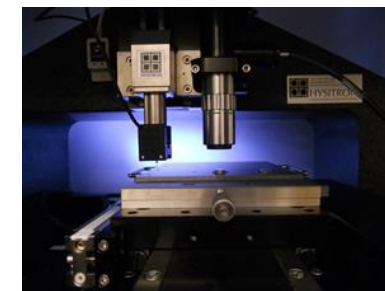
Raman spectroscopy



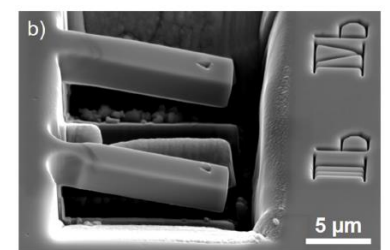
Materials characterization and testing



Laser confocal
microscopy



Nanoindentation



Micro-/nano-
mechanical testing

- Tribological coatings for tools and components
- Thin films for microelectronics and displays
- Surface functionalization for energy, environmental and medical applications