

Training Course

# X-ray techniques for materials development and process control

Non-destructive insights for advanced materials and processes

**22 - 24 Sep 2025**

*online*

Training Chair



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This training provides in-depth knowledge on the application of X-ray techniques for material characterization. You will learn how to utilize various X-ray methods to analyze materials and monitor processes.

**Topics and Contents:**

- Basics of X-ray physics
- X-ray diffraction for phase and microstructure analysis
- X-ray spectroscopy for composition and chemical bonding determination
- X-ray microscopy and tomography for 3D morphology and microstructure analysis
- AI algorithms to support analysis
- In-situ and operando studies of kinetic processes, such as micro-crack formation and propagation, as well as electrochemical reactions

**Target Audience:**

Engineers, scientists, and professionals from research, development, and production who use X-ray techniques for material analysis and process control or wish to deepen their knowledge in this field.

**Your Benefits:**

- Gain comprehensive knowledge of X-ray techniques and their application in material development and process control.
- Benefit from practical examples and current research findings.
- Connect with experts and expand your professional network.

**Registration and further Information:**

Visit our website for detailed information on content, prices and registration:

<https://dgm.de/go/5549>