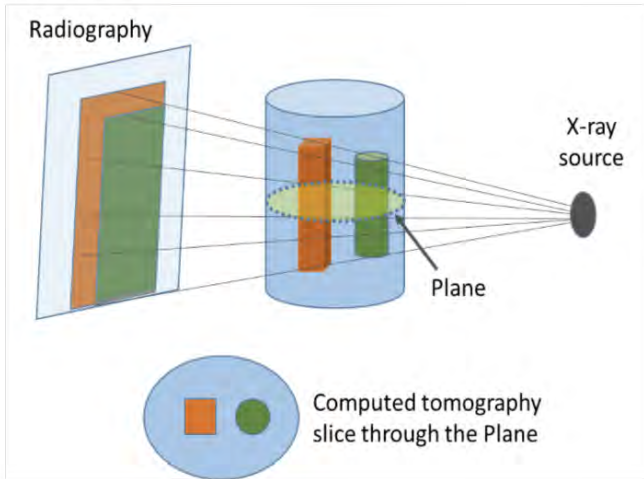


GENERAL DESCRIPTION

Micro-computed tomography (Micro-CT) is a non-destructive 3-D imaging technique that allows to see inside an object by means of X-rays. The pixel sizes of the cross-sections are in the micron-range, while the scanned object size can be up to 2 cm in diameter.

A Micro-CT scanner records X-rays transmitted through a sample as a two-dimensional projection image. The repetition of this imaging over the full rotation of the sample of 180°C leads to a series of projections that can be reconstructed into a full cross-sectional view of the sample (or slice). These slices can further be processed into three-dimensional models, revealing a volumetric information on the internal features of the sample.

Micro- and Macrotomography

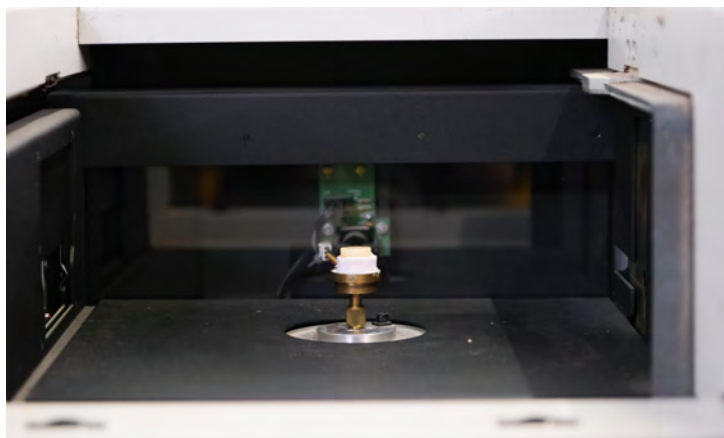


KEY-INFORMATION :

- Microstructure
- Porosity
- Materials homogeneity
- Deformation
- Wear
- Cracking
- Damages

DOMAINS OF APPLICATION

- Materials Science
- Composites
- Additive manufacturing
- Construction materials
- Electronic components
- Pharmaceuticals
- Dental research
- ...



REPORTING

A standard scan will take place over a 2-h duration. Projection images will be recorded for a full 180° rotation of the sample and processed into reconstructed slices.

Advanced image processing such as segmentation, filtering, calculation of parameters such as pore sizes and volume and 3-D reconstruction is of course also possible and scan durations can be adapted according to the sample and information requirements.

A standard report will provide the raw images as well as the reconstructions along with a short accompanying text.

PRACTICAL INFORMATION

- Measurements can be carried out on objects with sizes up to 2 cm by side.
- Measurements are carried out on a Bruker Skyscan 1172G operating at max. 100 kV.
- The minimum pixel size is 2-27 μm.

PRICING

Contact us for a quotation adapted to your needs.



Following the same operation principles, macrotomographic acquisitions can be realized on larger-sized pieces up to 40 cm by side. In this case, the scan is realized on a custom-built Macrotom operating at 420 kV, with a minimum pixel size of 360 μm. A specific acquisition procedure, data processing and reporting will be provided according to the demand.