Routine TEM (Transmission Electron Microscopy) JEM 1011

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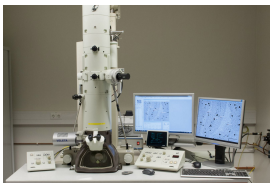

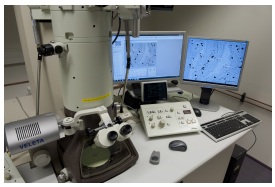

Brand

Jeol

Type

Contact

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Organisation

Plant Sciences Group

Department

Wageningen Electron Microscopy Centre

Description

Transmission Electron Microscopy has many applications across a multitude of industry sectors. It allows 2D and 3D-imaging of the internal structure of a wide range of samples, providing morphologic and crystallographic information. It thereby enables the analysis of structure and texture at micrometer and nanometer scale. The cryo-setup enables to image wet samples with this technology. As a result, the CAT-AgroFood TEM platform is a powerful and flexible tool for studying a very broad range of materials and products.
Wageningen Electron Microscopy Center
The Transmission Electron Microscopes and sample preparation facilities are embedded in the Wageningen Electron Microscopy Center (WEMC). WEMC provides technical support, training and consultation in the area of electron microscopy and elemental analysis. CAT-AgroFood and WEMC jointly provide access to advanced electron microscopes and relevant expertise for biological, food and non-biological science research. In addition to TEM, UHR-(cryo-)Scanning Electron Microscopy (SEM) is available as well.

Technical Details

JEOL JEM1011

- Routine transmission electron microscope (max. 100 kV)
- SIS Keenview digital camera (1K x 1K images)
- SIS Veleta digital camera (2K x 2K images)
- iTEM imaging software for image acquisition and quantification

Applications

(HR-cryo-)TEM may assist in a wide range of research applications where (highresolution)structural characterization is needed in the areas of life sciences, food science, nanotechnology, material science, forensic analysis, metallurgy, semiconductors, environmental studies and many more.

Complementary Techniques

State-of-the-art facilities for sample preparation are available, among which:

- Ultramicrotomes
- Specimen trimming device
- Carbon coater