



## Organic PV

Technical University of Denmark

Advanced characterisation platform for OPV

**Location of the infrastructure:**

Roskilde, Denmark

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**Objectives:**

Characterisation; advanced studied on structure, optical properties and chemical composition

**Main features:**

Characterisation methods and instruments for advanced studies of structure, optical properties and chemical composition. The accessible instrumentation is:

1. X-ray GISAXS/GIWAXS line for in situ studies of OPV structure on nanoscale;
2. Secondary Ion Mass Spectrometry (SIMS) for studying chemical changes under degradation of OPV; 3. UV-Visible spectroscopic ellipsometry also used for detailing properties and changes in solar cell layers.

Instruments are typically used in combination with solar cells processed on the "Polymer solar cell processing facility" offered as a separate TNA. Solar cell degradation and nanoscale structure have been investigated in international collaboration.

**Examples of research projects:**

- analysis of solar cells or materials layers by technical and scientific staff in collaboration with users
- joint research activities on materials screening and degradation studies