Title, Name and surname
Katarzyna Berent, PhD, assistant professor

Faculty and Department
Academic Centre for Materials and Nanotechnology

Keywords.
study of the influence of microstructure on the functional properties of materials, scanning electron microscopy (SEM), electron tomography using FIB-SEM, rapid prototyping, solid oxide fuel cells

Scientific profile.
My research interests are focused on studying the relationship between microstructure and the functional properties of materials. In my daily work, I use research techniques offered by the scanning electron microscope (SEM), i.e. EDS, EBSD, FIB-SEM, combining them with electrical and mechanical measurements of materials.

Exemplary thesis titles
- 3D reconstruction of the porous SOFC cathode using FIB-SEM tomography.
- Evaluating microstructure evolution in a SOFC electrode using SEM images and stereological calculations.

The form of conducting master's theses
Students participate in weekly meetings with the supervisor where the research progress and plans for the next week's are presented.