

## Microsymposium

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### *Electron diffraction tomography for structure analysis of nanomaterials*

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For decades electron crystallography had not been considered as a reliable method of structure analysis, being more a curious scattering experiment. The introduction of electron diffraction tomography brought to light a novel structure analysis technique able to resolve structures of nanocrystalline samples, not assessable by other methods. Electron diffraction tomography is based on the systematically sampling of the reciprocal space by means of electron diffraction. Being in principle very close to single crystal X-ray diffraction experiment, electron diffraction has nevertheless specialities, which make it in a first row an attractive alternative technique, on the other side a demanding experiment and not straight-forward data analysis. The power of electron diffraction tomography method has been clearly demonstrated within the last years – a number of crystalline structures of various material types has been solved. The achievements and potentials of electron diffraction tomography method will be presented, supported by numerous structure analysis examples.

**Keywords:** electron diffraction, structure analysis, TEM