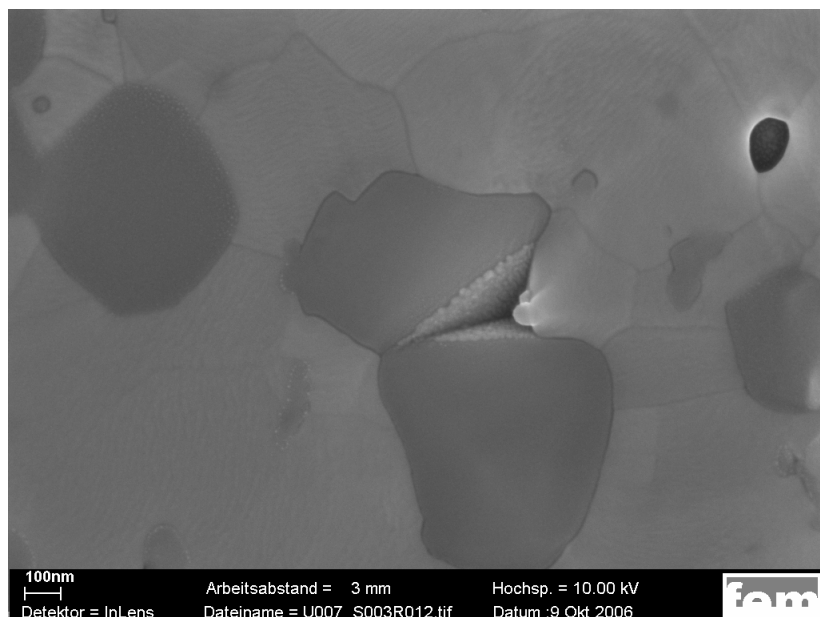


AgSnCu-oxide after mechanical polishing (left) and after cleaning and polishing with ion milling (right and lower image)



## Leica EM RES101

Cleaning and Ion Polishing of Soft Metals  
(AgSnCu-Oxide)

**Market: Material research institutes, Universities  
Companies (e.g.): FEM, etc.**

Living up to Life

# Leica EM RES 101 Application No. 3/3

## Cleaning and Polishing of Soft Metals

### (AgSnCu-oxide)

#### Purpose:

Mechanical polishing of soft materials leads to smearing. The smeared material covers the sample surface and makes a structural investigation impossible.

#### Goal:

- Quality enhancement of the mechanical polished surface to get more structural information.

#### Process description (benchmark values for this particular sample):

Mechanical pre-preparation: Done by the customer conventionally

Parameter / Step	Cleaning	Polishing
Acceleration voltage	4kV	6 kV
Gun current	2 mA	2.5 mA
Sample movement	Oscillation $\pm 70^\circ$	Oscillation $\pm 60^\circ$
Milling angle	$10^\circ$	$5^\circ$
Milling time	10 min	20 min
Sample holder	SEM standard holder	SEM standard holder

Complete process time: 30 min

#### Results:

- Perfect sample surface after cleaning and ion polishing
- The smeared material is completely removed.
- The structural details of the material are clearly visible.

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