



APEX™ EBSD Training Course Agenda

Wednesday – Basic crystallography for EBSD and EBSD data collection

- 12:00** **Welcome and lunch**
- 13:00** **Crystallography and Diffraction**
History of EBSD
Basics of crystallography - unit cell - symmetry – origin of EBSD patterns
- 14:45** **Coffee break**
- 15:00** **EBSD pattern processing and indexing**
EBSD reflectors - EBSD pattern formation - external and internal influences
- 16:30** **APEX EBSD data collection - software introduction and practice**
Live introduction into EBSD data collection - practical work on SEM using participant samples - specimen mounting - How to setup the system - pattern optimization – scan strategies
- 17:00** **End of day 1**



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Thursday – EBSD Data Collection and OIM Analysis™

- 9:00** **Review of collected EBSD data**
Review of day 1 based on data collected on participant samples
- 9:30** **Orientation definitions and representation of EBSD data**
Euler angles - pole figures - inverse pole figures - map color coding
- 10:45** **Coffee break**
- 11:00** **Data processing with OIM Analysis - analytical tools - 1**
User interface - Analytical tools - Partitions - Maps - Plots - Charts
- 12:00** **Lunch break**
- 13:00** **Data processing with OIM Analysis - analytical tools - 2**
Textures - interactive analysis – highlighting
- 14:00** **APEX EBSD data collection live on SEM**
Data collection on participant samples
- 14:30** **Coffee break**
- 14:45** **Data processing with OIM Analysis - advanced features**
Pattern reprocessing – NPAR™ - PRIAS™
- 16:00** **APEX EBSD data collection live on SEM and reprocessing of collected datasets**
Analyzing participant samples
- 17:00** **End of day 2**



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Friday – Combining EDS & EBSD – Phase ID and ChI-Scan™

- 9:00** **Combining EDS and EBSD**
Simultaneous EDS-EBSD data collection – phase discrimination with ChI-Scan – phase identification
- 10:30** **Coffee break**
- 10:45** **Simultaneous EDS-EBSD data collection live on SEM – ChI-Scan and Phase ID**
Determination of phases – structure file optimization – ChI-Scan reprocessing in OIM Analysis
- 12:00** **Lunch break**
- 13:00** **Open session and Practice**
As required – data cleanup – large area montage mapping - OIM Analysis practice
- 15:30** **End of EDAX EBSD course**