

AZtecCrystal

A new era in EBSD data processing

Electron backscatter diffraction (EBSD) is an increasingly essential microanalysis technique, driven by high-speed CMOS-based detectors and a growth in markets in which EBSD helps to solve real materials problems. The result is a requirement to increase the breadth and accessibility of data interrogation tools.

AZtecCrystal sets a new standard for EBSD data analysis: a totally new processing package, designed for the EBSD novice and expert alike, that will unlock the hidden characteristics in every sample.

Key features include:

- Single intuitive yet flexible user interface
- Seamless integration with the AZtec acquisition platform
- Newly developed HDF5 data format including both EDS and EBSD results
- Full map analysis with multiple customisable displays
- Full texture analysis using pole figures and orientation distribution functions
- Multiple advanced tools, including materials properties, machine-learning based classification, data subsetting, comprehensive grain sizing and disorientation analysis

Flexible

- Multi modal display : view the analytical tools relevant to every materials problem
- Multi layered map creation with no component limits
- Ideal for all computers, from laptops to workstations

Fast

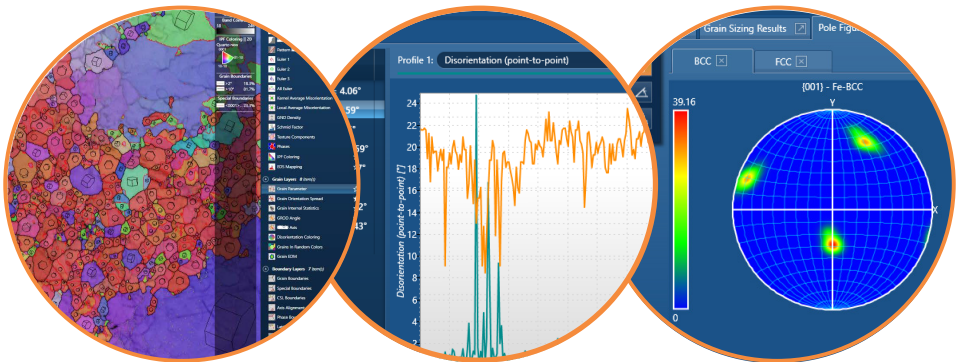
- Quaternion based algorithms for fastest data processing
- Handles any size dataset from AZtec with ease: even the largest datasets are processed within seconds, boosted by the batch processing tool
- Relevant data and settings are stored within each project for fast reloading

Intelligent

- Designed around intelligent routines, such as void detection, GND density calculation, parent grain size determination and disorientation angle congruence
- Comprehensive grain size analysis to ASTM standards with over 10 display options
- Smart defaults and settings for all materials

New Science

- AZtecCrystal makes advanced EBSD accessible to all users, opening up new research opportunities
- Dynamic platform – multiple new tools and features to be incorporated in future releases



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