

LAS X PHASE EXPERT SOFTWARE: Analysis of multiple phases and microstructure components

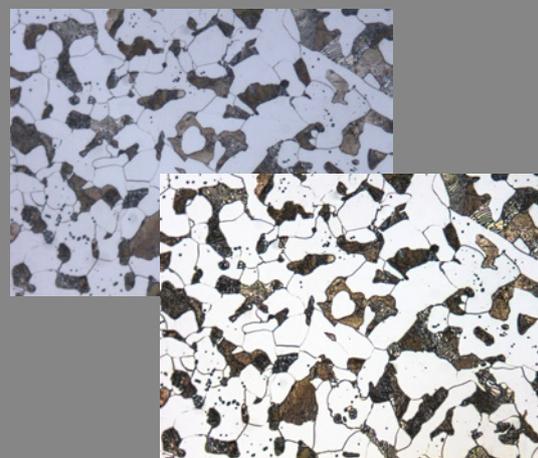
Improve detection accuracy by up to 250 times

LAS X Phase Expert enables the advanced analysis of multiple phases and components of microstructures.

The Leica software's quick and easy to learn workflow rapidly guides the user through the individual analysis steps. Using high bit-depth or HDR images, highly accurate detection algorithms allow the investigation of faint differences in phases.

Whereas for traditional images the detection resolution is limited to 256 intensity levels, LAS X Phase Expert allows for an improvement in detection accuracy of up to 250 times.

Results are typically calculated as the percentage of individual phases in the observed microstructure. Beyond traditional phase analysis, the software also provides additional object measurement capabilities and an evaluation of a wide variety of other geometrical as well as morphological parameters.



Some use cases:

- > Materials: Components in metal alloys and ceramics
- > Materials: Particle density of dispersed solids in alloys
- > Mining: Ratio of extractable ores in minerals
- > Automotive: Porous surfaces of catalysts and the honeycomb structure in light weight construction materials

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Sample Preparation

Selection of samples according to a standardized sampling process. Preparation of clean and even surfaces using abrasives or thin sections using microtomes.



Etching

Chemical, electrochemical, or physical visualization of different phases and components by material specific etching methods.



Visualization / Acquisition

Applying optical contrast methods and microscopic imaging techniques to acquire digital images of the sample's microstructure.



Digital Phase Analysis

Analyze the sample's microstructure for area ratios (or various other parameter ratios) of up to 10 phases or a simple object count of the individual components.



Reporting

Beyond traditional phase percentage and object count, a wide variety of other parameters can be analyzed, e. g. shape parameters and surface/interface areas. Create customized, Excel-based report templates to tailor analyses for advanced research purposes.



Delivery of Quality Products



Your benefits: Time savings due to an automated and precise workflow

LAS X Phase Expert software automatically and precisely measures the area percentage of metals, minerals, and other materials. Beyond traditional phase analysis, the software also provides additional object measurement capabilities and a wide variety of other geometrical and morphological result parameters.



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