

GAMMA PRIME PARTICLE ANALYSIS

Sample Description

An image of gamma prime strengthened Ni based super alloy is submitted for analysis.

Purpose of Analysis

Demonstrate the ability of the Clemex Vision image analysis software with porosity analysis module to detect, separate and measure the gamma prime particles.

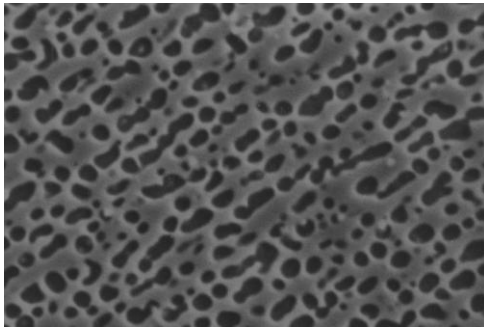


Figure 1: Original image showing gamma prime particles.

Procedure

The image was loaded and calibrated using the available scale line. A Gray filter was applied to remove intermediate gray levels. The binarization was performed using Gray Thresholding. Artifacts were removed and particles were separated.

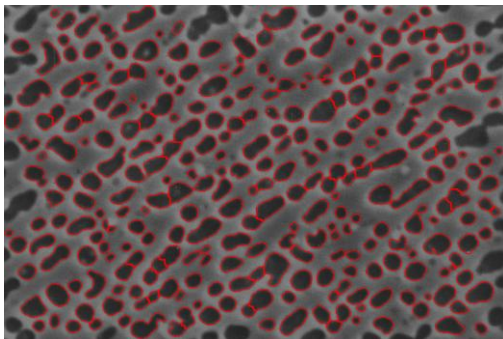


Figure 2: Outline view of particles binarized in red prior to measurements.

Results

Length and diameter measurements are performed. Results are cumulated for automated statistics and graph output. Final results can be printed directly from Clemex Vision. Raw data are linked to their respective object and can be exported in Excel format.

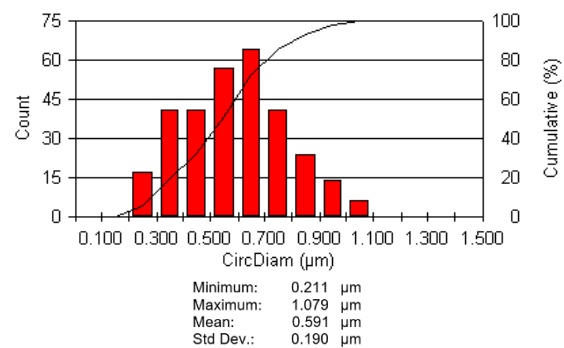


Figure 3: Cumulative graph and statistics showing particle diameter.

Equipment

Image Analysis System:	Clemex Vision
Magnification:	5000X
Calibration:	0.02 microns/pixel