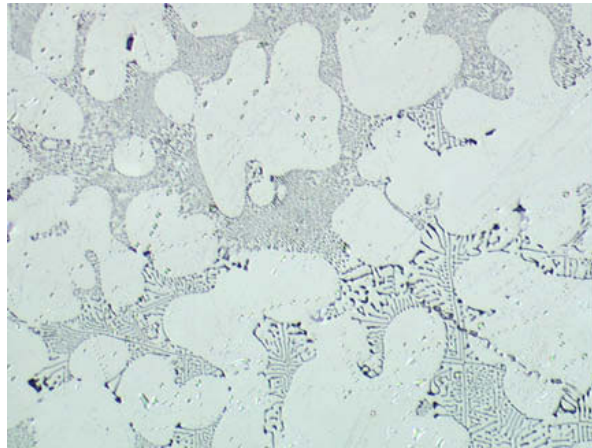


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IMAGE ANALYSIS REPORT

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Mg₂Si particles in Aluminum



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Part I: Apparatus

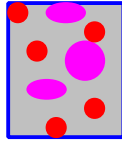


<i>Image Analysis System:</i>	Clemex Vision PE V3.1
<i>Camera:</i>	Sony DXC 950P
<i>Microscope:</i>	Nikon Optiphot-2
<i>Illumination Type:</i>	Reflected light
<i>Magnification:</i>	200 X
<i>Calibration:</i>	0.64 microns/pixel
<i>Motorized Stage:</i>	Marzhauser 40 x 40 mm
<i>Joy Stick:</i>	Clemex JS 2000

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IMAGE ANALYSIS REPORT

Part II: Images



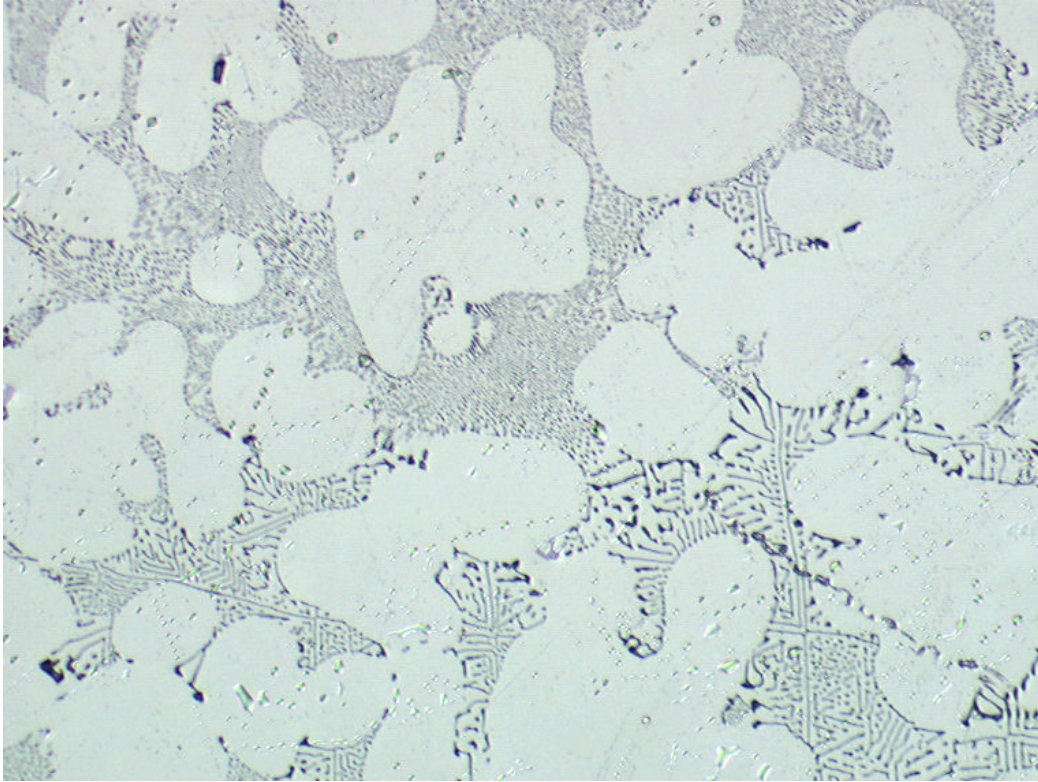


Figure 1: Original image showing Mg₂Si particles in aluminum sample (200x).

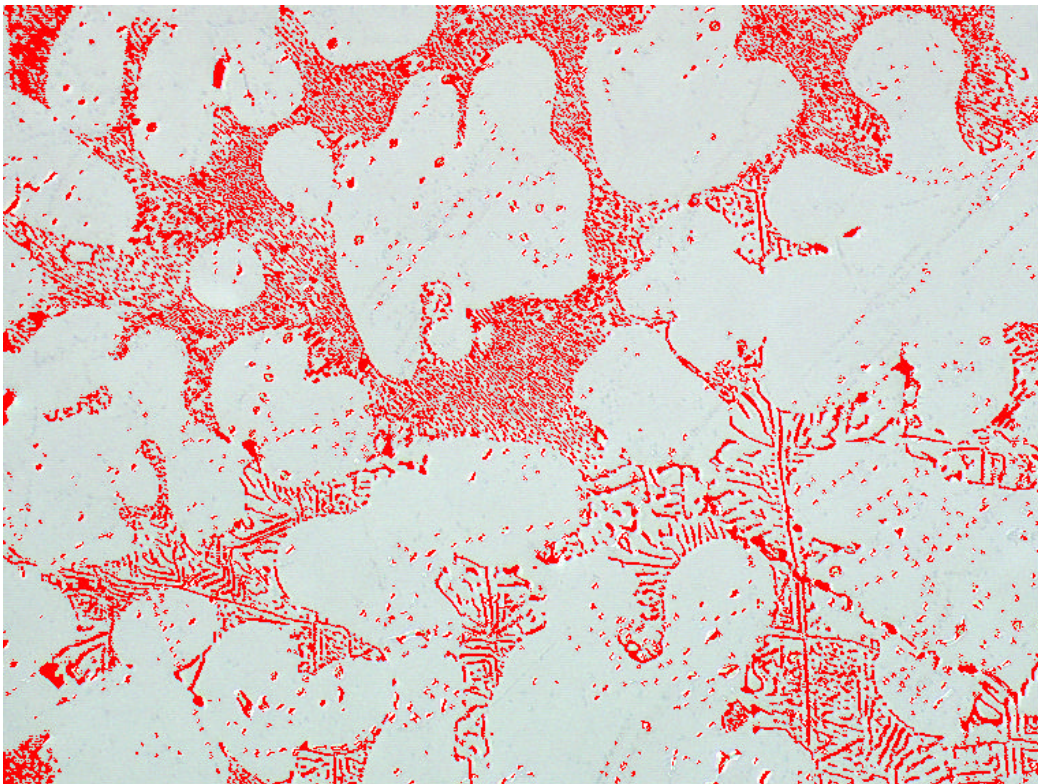


Figure 2: Mg₂Si particles are binarized into red bitplane using gray thresholding.

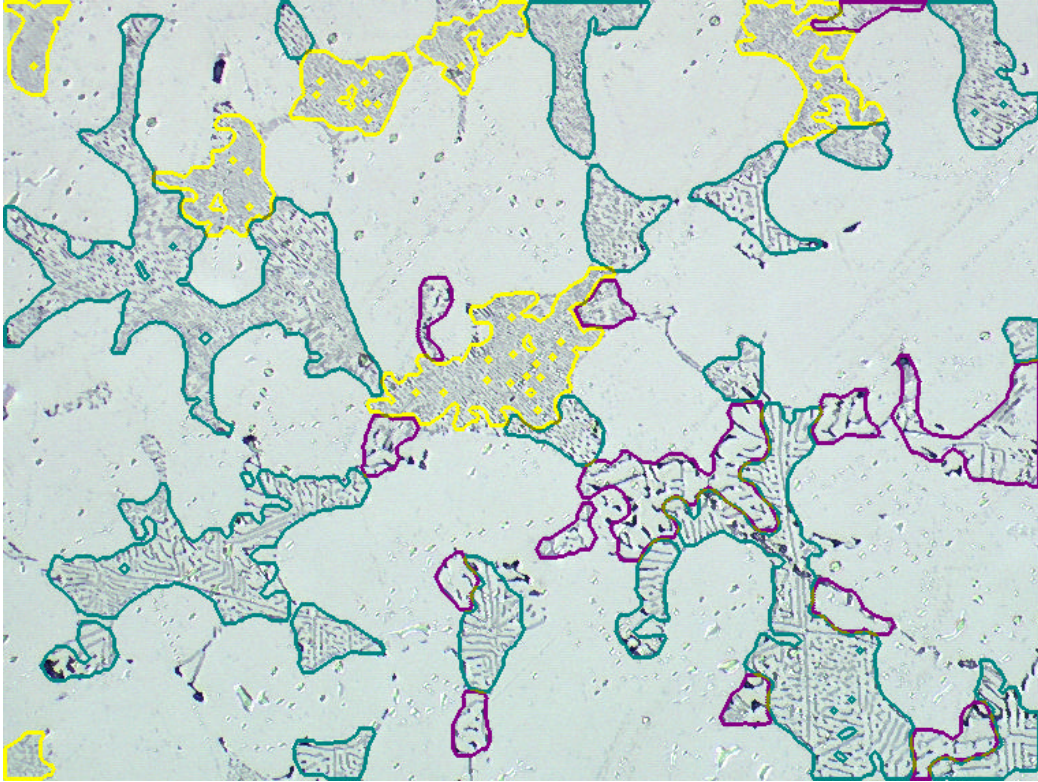


Figure 3: Fine, medium and coarse Mg₂Si particles are discriminate with binary tools.

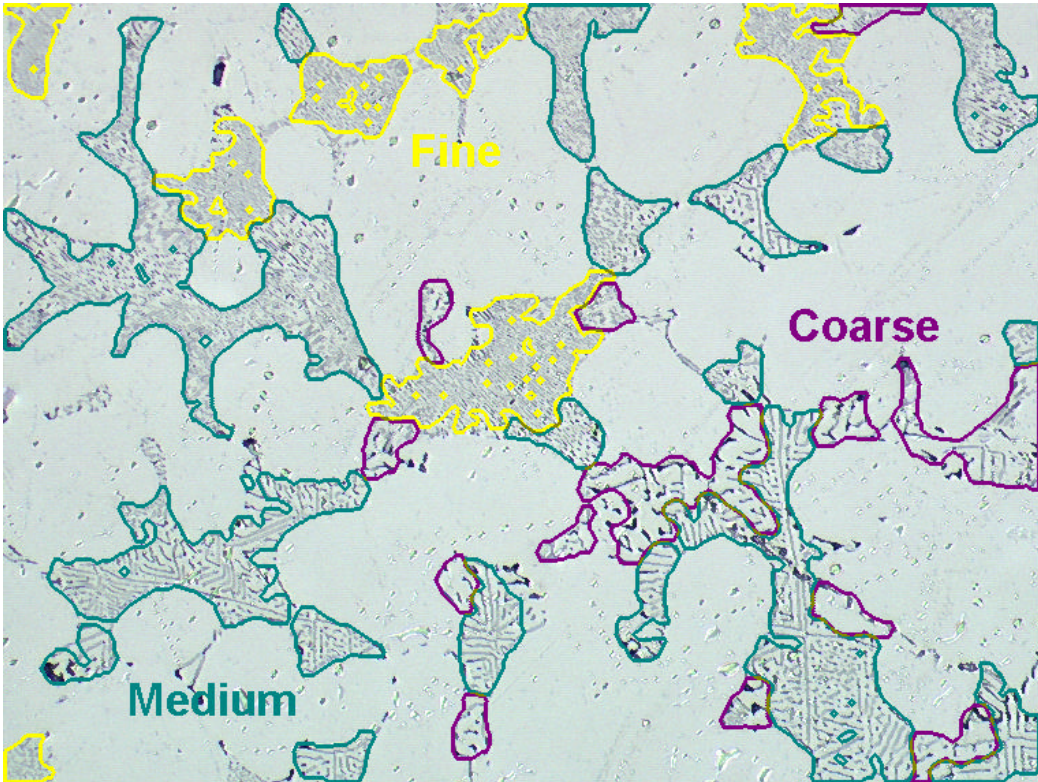
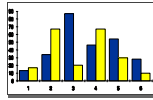


Figure 4: Same as previus with annotations.

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IMAGE ANALYSIS REPORT

Part III: Results



Clemex Vision Report

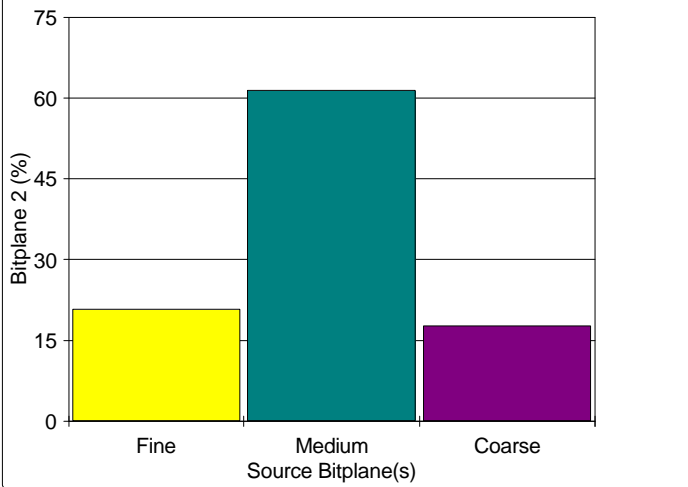
Organization: **Clemex Technologies**
Department: **Laboratory**
User: **MS**

Sample: **Sample 1**
Description: **Mg₂Si particles in aluminum.**

RELM1 Area %

Magn.: 200x Calib.: 0.6356 $\mu\text{m}/\text{pixel}$

Chart



Values

S. Bitplane(s)	Bitplane 2 (%)
Fine	20.79
Medium	61.49
Coarse	17.72

Statistics

Field Count:	1
Field Area:	175968.88 μm^2
Total Area:	175968.88 μm^2

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