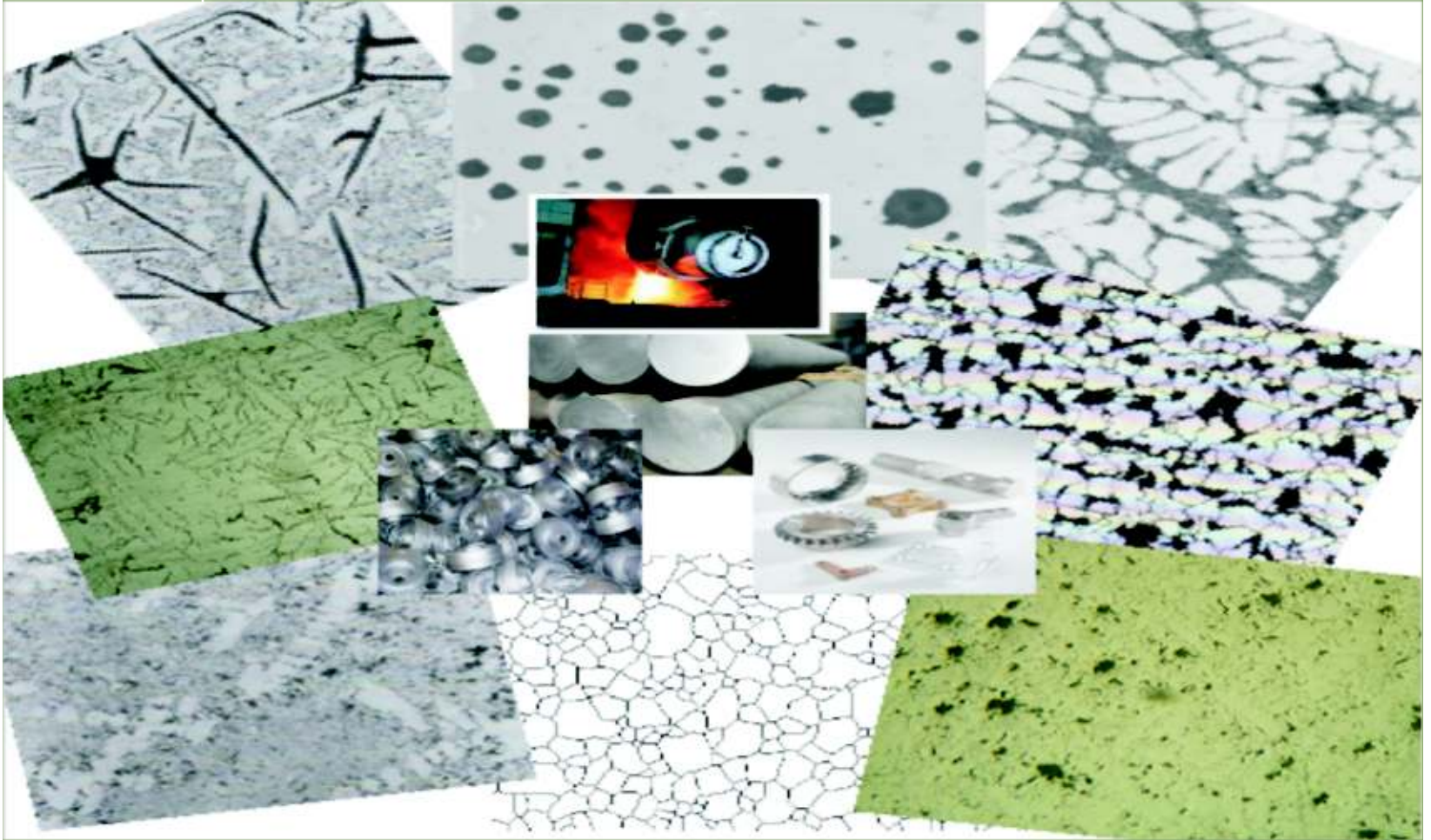




Advanced Metallurgical Image Analysis System



MIAS[®] is a windows based imaging application that delivers state of the art imaging solutions in Metallography.

MIAS[®] provides superior tools for image capturing, visualization, enhancement, analysis and report generation. Our Imaging Solution is a powerful integration of software and hardware that enables metallurgist to automatically capture images, performs metallurgical analysis and generates reports.

MIAS[®] conforms to ASTM standards and is based on technology transfer from BARC (Bhabha Atomic Research Center).

A powerful image analysis software application, MIAS[®] is available as a stand-alone solution or part of a turnkey image analysis system including all necessary hardware components.

Turnkey Image Analysis system consists of:

- Trinocular Metallurgical microscope
- High resolution digital camera
- MIAS[®] – a highly advanced Metallurgical Image Analysis Software



Based on technology transfer from BARC

System supports following metallurgical analysis modules

Grain Size (ASTM E112)

Grain Size is measured in compliance with ASTM supported methods like Planimetric, Linear Intercept, Circular Intercept and manual process.

ALA Grain Size (ASTM E930)

ALA Grain Size is measured using automatic as well as manual method.

Porosity

Porosity is measured automatically. System supports user to set circularity cut-off of features and also allows the user for manual over-ride of the results

Nodularity

Nodularity can be measured automatically. System supports user to set circularity cut-off of features and also allows the user for manual over-ride of the results. System also supports line intercept method.

Basic dimensional measurement

Supports basic dimensional measurements such as length, area, angle, diameter, radius etc and also supports drawing line, circle, arc, angle, curve etc

Phase/Segmentation

System supports up to 5 phases. Area and percentage of each phases are detected based on gray-scale settings

Inclusion (ASTME45)

The results are given in terms of severity levels using type (A, B, C, D) and thin/thick classification. Also supports Method C of ASTM for Oxides and Silicates

Flakes (ASTMA247)

Automatic as well as manual process. Gives the distribution (A, B, C, D, and E) and size of graphite formations. Results can be by distribution only, by size only or both.

Decarburization (ASTM E1077)

Supports Trace method and Total Decarb method.

Dendritic Arm Spacing

This method is for Aluminum. Finds the average dendrite cell intervals

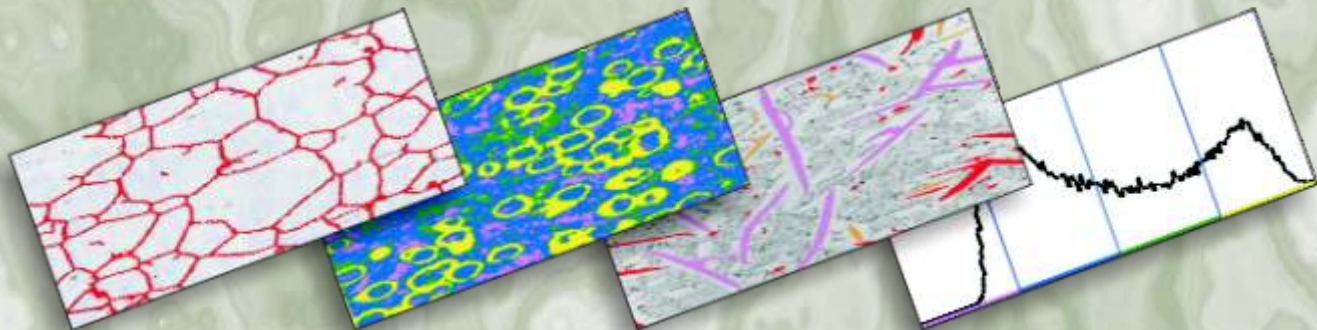
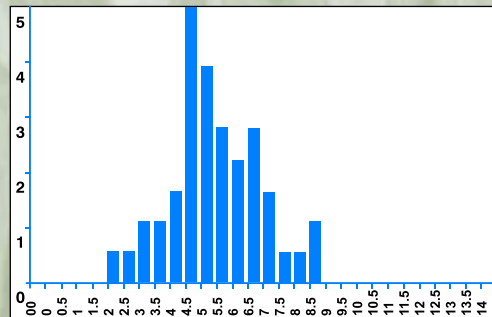
Report Generation

Supports report generation in PDF or Excel. Supports measurement of multiple samples/fields for each analysis result.

Measurement data

FLAKE REPORT		
Flake Type	Area (sq mm)/Count	Area %
Total Flake Count	64	
Total Flake Area	0.0617	10.81
A4	0.0012	0.22
A5	0.0018	0.32
A6	0.0004	0.07
C2	0.0244	4.28
C3	0.0156	2.73

GRAINS SIZE REPOOT	
Grain Size	4
Standard	ASTM E112
Smallest Grain Size	10.5
Largest Grain Size	2
Number of Fields	1
Total Field Area	0.37
Mean measurement Value	0
Standard Deviation	0
95% Confidence measure	0
% Relative Accuracy	0



QS Metrology Private Ltd

#806, TC Jaina Tower – 1, District Center, Janak Puri, New Delhi – 110 058, INDIA

Tel: +91-11-25594270, 25573986 Fax: +91-11-25614270

Email: sales@qsmetrology.com support@qsmetrology.com

Website: www.qsmetrology.com www.qsmetlab.com