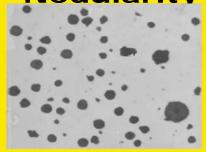
# **METALLURGICAL SOFTWARE**

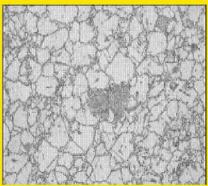
**Phase Study** 

Phase Analysis: Measure area function & Volume fractions. identify multiple phase within Microscoe structure . The Analysis confirm to ASTM E562 & E145.SS

### **Nodularity**



### Grain size



Nodularity: Measure Nodularity as per ASTM 247 std. The Nodules & Flakes are separated on the basis of its shape and aspect ratio. The details Measurement of each micro structure is available for further analysis.

The Processed image displays non-Nodules in different colour. The Nodules can ne classify by its range on the bsis of its size & Shape

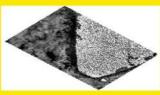
The Module analysis Grain and Measure the Grain No. & Grain Size Using ASTM 112 method. The Optiona for Measurement available are:

- 1> Manual Trace,
- 2> Popular Comparison Method,
- 3> Quick Single Grain Measurement
- 4> ALA Method
- 5> Interception Method.

Various filters to make user defined templates Grain Boundry repair mathematical function. Coating Thickness

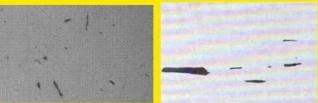
This application rapidly measure the thickness or width of a coating at multiple positions along a sample as per ASTM B487 standards. Tabulated results available for minimax and mean of width Measured at various points of sample cross section





**Decarbanization:** Measured Depth / width of Decarbanization as per Inclusion ASTM 1077 standards

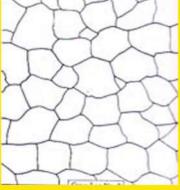
Non-metallic Inclusion: Measure Inclusions & report ASTM E-45, E-1245 numbers, Cumulative length width also,



Graphie Flskes: Graphite Flaske Length, width, distribution and %ge as per ASTM 247-67



mumbai



# METALLURGICAL SOFTWARE



#### **Basic Features**

- 1> Calibration: a> Special Calibration with Japanese test Slide JIS(0.01mm)
  - B> Ares by enclosed Line controlled by four arrow keys available ob key board arrows with zoomed preview
- 2> Count & Classification: Identification of Objects in an image, count them, obtain several features measurements. Objects Indentification by User or autamatically. User defined classification on basis of size and intensity.
- 3>Thresold-hold practical Measurement: Manual Auto Bright and Auto Dark methods to identify intensity range defined object to be measured. Various calculations & Measurements available for selected particles are Dimensions, Area, Parameter ferret, Length, Thred length, Thread and fiber width.
- 4> Morphometry Measurements: Line measurements for distance, Length, width, perimeter, angle, three point radius, roundness, shape, orientation, elongination, equal circular diameter, equal sphere volume.
- 5> Location Analysis: Centroid X, Centroid Y, Major X1, Major Y1, Minor X1, Minor Y1, Major X2, Major Y2, Minor X2, Minor Y2, Box X2, Box Y2 & Box Area

