Cast Iron Analysis

This dhs Image Data Base module serves for professional analysis of the **microstructure of cast iron**. In this context, the actual make-up of graphite particles has a decisive effect on material properties such as fracture behaviour and elasticity.
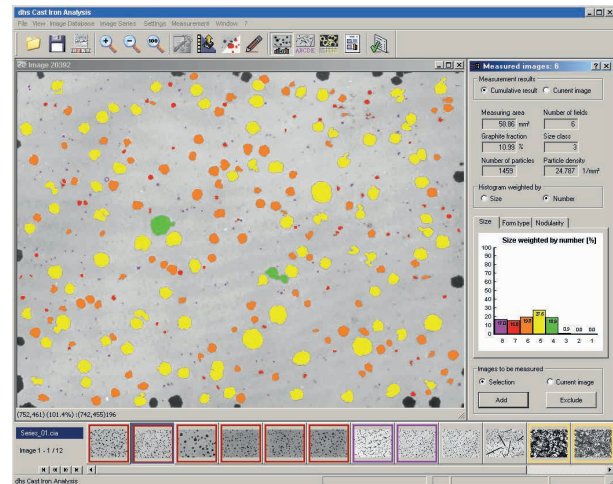
Measurement parameters / standard value

The fine structure is usually analysed on the basis of several national and international standards (e.g. **DIN EN ISO 945** and **ASTM-A247**).

The key characteristics to determine here are:

- **graphite size**
- **graphite form**
- **graphite distribution**

The module also ships with measurement parameters that are not explicitly defined in the standards, but have been integral to previous analyses. These are as follows:

- **Ferrite / pearlite characterisation** of the etched specimen
- Measurement of the **proportion of graphite**
- Determination of the **nodularity characteristic**
- **Number and density of graphite particles** (absolute and per unit area)

Evaluations

The analysis software comprises three components:

- **Nodular cast iron analysis**
- **Grey cast iron analysis**
- **Ferrite / pearlite analysis**

Information in the overview

- Powerful cast iron material analysis software on the market
- Available with two expansion levels („Standard" and „Advanced")
- Standard-compliant evaluations as per DIN EN ISO 945 and ASTM-A247
- Evaluation of entire series of images, including automatic reporting
- Includes trainable distribution classifier for flake graphite (in version "Advanced")

More Software Features

- **image pre-processing**
- **innovative form classifiers**
- **automatic cropping of impinging spherulites**
- **various interactive correction modes**
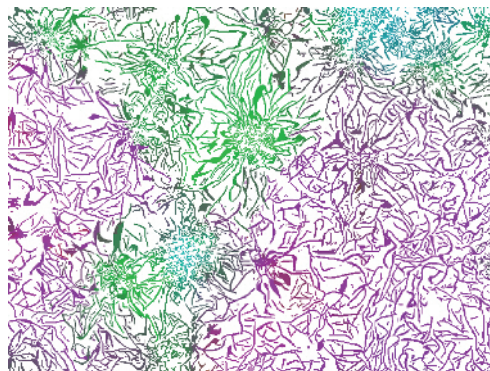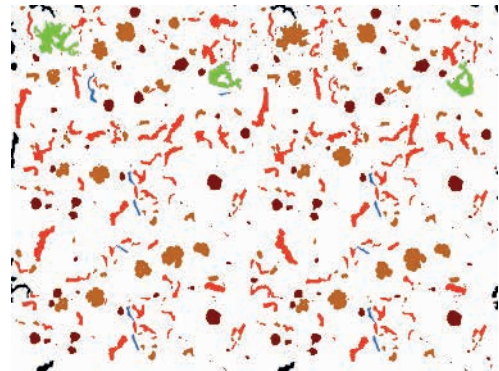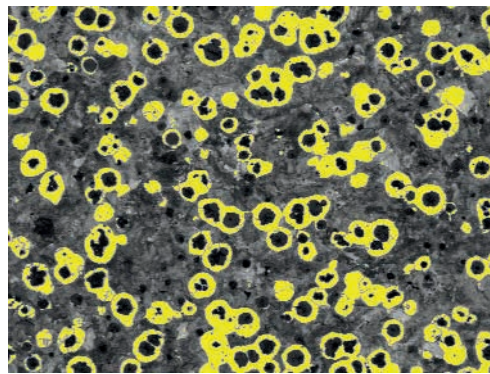- **automatic logging**

Analysis

Once several images of the analysis specimen have been generated and saved to the data base and you have checked or adjusted certain basic settings (calibration and setting of grey-scale limits), you can measure the entire series of images **with a single press of a button** – quickly and easily!

„Advanced" Version

In addition to the „Standard" functionality described above, the „Advanced" version also enables

- determination of flake size distribution
and includes an
- adaptive distribution classifier (with features which are unique worldwide)

Despite its comprehensive range of functions, this software is very clear and easy to understand. We would be happy to convince you of this in person, in a live presentation on your premises.

dhs
Image Data Base

dhs®
MicroCam

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Cleanalyzer