Fibermetric

Better, Faster Fiber Analysis

Now, direct observation and measurement of micro and nano fibers is faster, better and easier than ever before, with the Fibermetric application.

In combination with the Phenom desktop electron microscope, the Fibermetric application allows you to produce accurate size information from micro and nano fiber samples.

Automated image characterization means hundreds of measurements can be made automatically in seconds. In addition to more accurate data acquisition, the automated measurements of the Fibermetric application also ensure a rapid return on investment (time savings compared to previous manual measurements; operator independent; more accurate data).

Fibermetric uses hundreds of data points to provide a solid statistical analysis. An interactive fiber size distribution histogram is drawn for a graphical representation of the results. All data are exportable to common formats for further customized analysis.

Fibermetric is designed to measure fibers between 100 nm and 20 µm imaged with the Phenom. There is a wide range of applications where this can be used, from filtration materials to diaper padding to fiber research.

The Fibermetric application generates all the statistical data you need, without an elaborate laboratory infrastructure or specially trained operators.
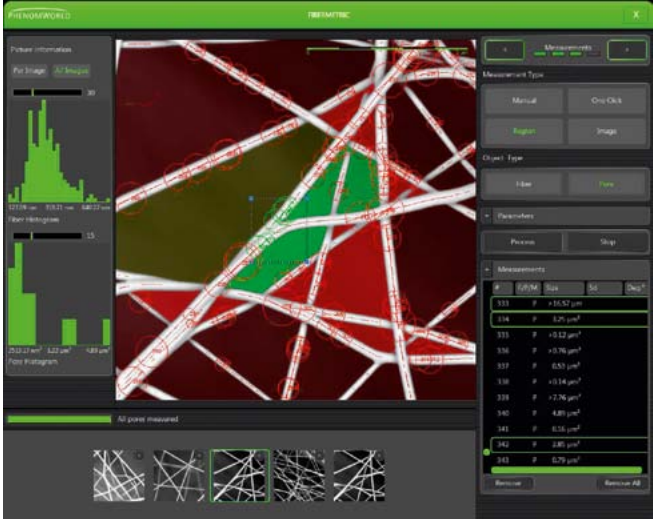

Figure 1: Fibermetric user interface with fiber and pore measurements

Benefits of the Fibermetric application:

- Save time by automated measurement
- Collect statistical data automatically
- View and measure micro/nano fibers
- Operator-independent measurements
- Real-time Phenom operation
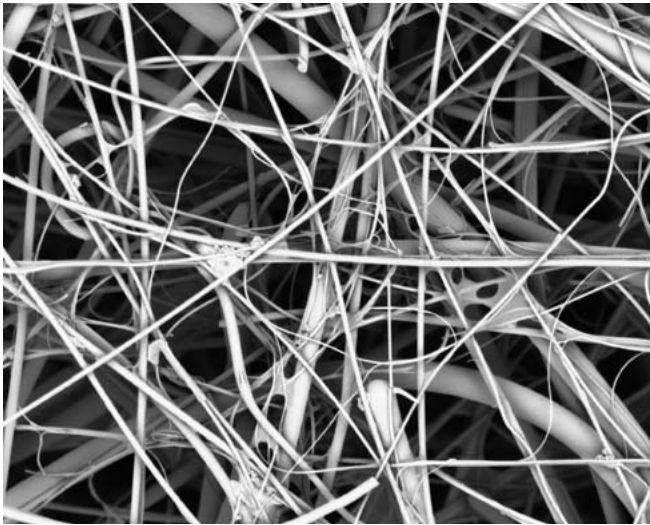- Data exportable to common formats

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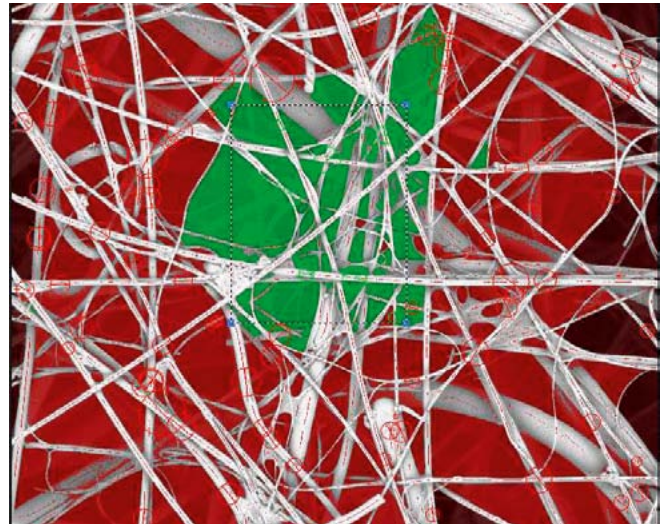SPECIFICATIONS SHEET

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Figure 2: Hepa dust filter

Figure 3: Close up of several measurements in the Fibermetric user interface. A selection of fiber and pore measurements has been highlighted
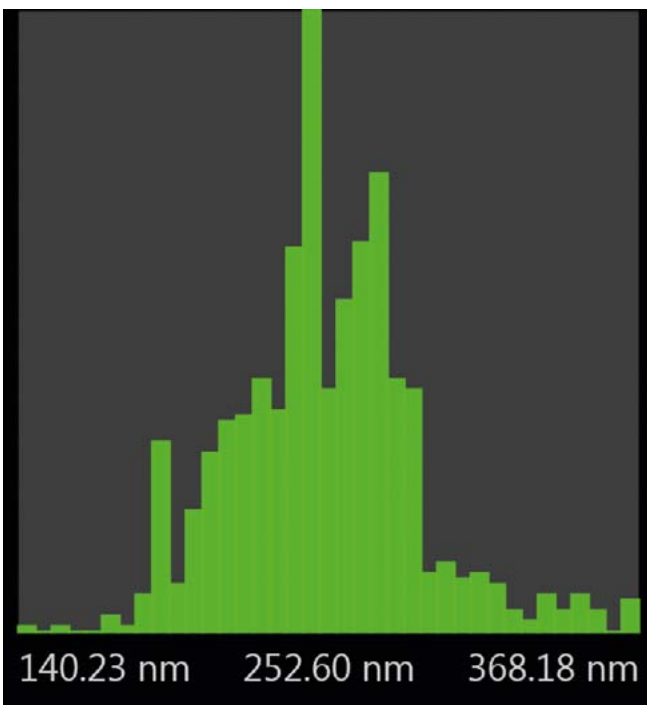

140.23 nm   252.60 nm   368.18 nm

Figure 4: measurement results are presented in the histogram. The user can define the number of bins in the histogram. The min/max and average fiber size are displayed below the histogram.

Specifications

- Fiber Detection
  - 100 nm to 20 μm
  - 1 to 1000 measurements per image

- Output:
  - Xml data file (incl. diameter measurements and pore surface areas)
  - Jpeg or tiff image format
  - Max. 2048 x 2048 pixel image
  - Customized fiber ditribution histogram
  - Minimum, maximum and average fiber size

- Part of the Phenom Pro Suite
  - Network storage enabled
  - Phenom integrated system

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