KAN208130801

Laboratoř Metalomiky a Nanotechnologií

Vás zve na kurz:

SEM mikroskopie - techniky využívající moderních prvkových detektorů

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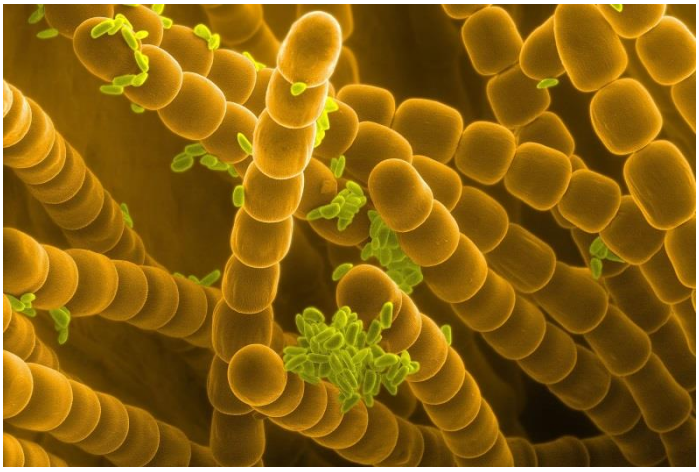
Abstrakt

The most common configuration for an SEM produces a single value per pixel, with the results usually rendered as black-and-white images. However, often these images are then colorized, in either true color or false color, by using a colour look-up table, through the use of feature-detection software, or simply by hand-editing using a graphics editor. This is usually for aesthetic effect, for clarifying structure, or for adding a realistic appearance to the



sample and generally does not add information about the specimen. In some configurations more information is gathered per pixel, often by the use of multiple detectors. The attributes of topography and material contrast can be obtained by a pair of backscattered electron detectors and such attributes can be superimposed on a single color image by assigning a different primary color to each attribute. Similarly, a combination of backscattered and secondary electron signals can be assigned to different colors and superimposed on a single color micrograph displaying simultaneously the properties of the specimen. In a similar method, secondary electron and backscattered electron detectors are superimposed and a colour is assigned to each of the images captured by each detector, with an end result of a combined colour image where colours are related to the density of the components. This method is known as density-dependent colour SEM (DDC-SEM). Micrographs produced by DDC-SEM retain topographical information, which is better captured by the secondary electrons detector and combine it to the information about density, obtained by the backscattered electron detector.

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