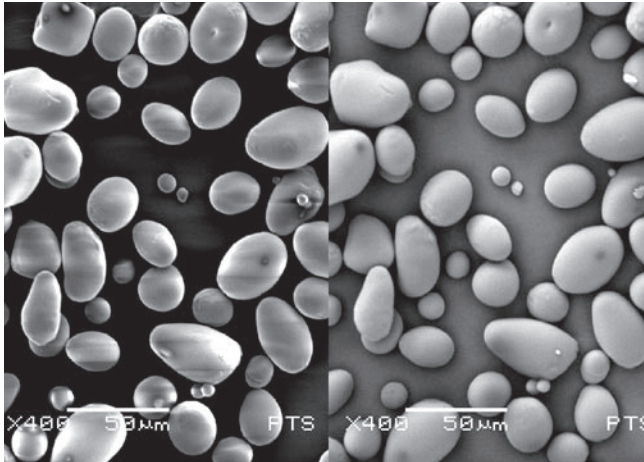
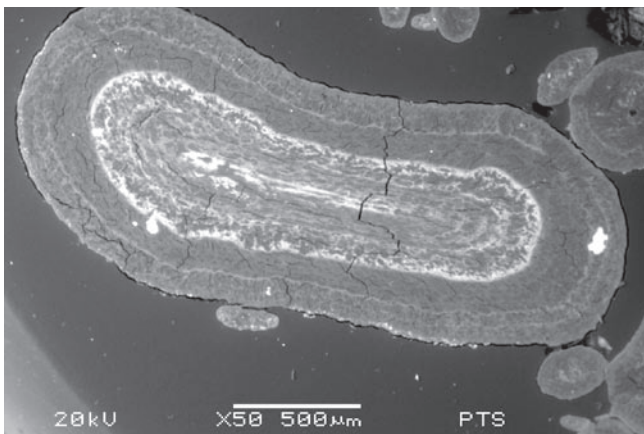


EXPOSURE OF SENSITIVE AND MOIST  
SAMPLES BY LOW-VACUUM APPLICATION

Starch grains: left - conventional SEM image with charging effects and interference, right - low-vacuum image of the same object offers better image quality

The SEM chamber is pressurized at 1 to 120 Pa and is highly suitable for analysing fibrous materials (moist or dry), sticky deposits, starches, felts and embedded structures.



Cross section of an embedded sludge pellet

## EXTRA SERVICES

Extra services such as sample preparation, image processing (false colour rendering, 3D) or special imaging techniques can be provided by request.

Images can be supplied on CD-ROM, EDX spectra and mappings as tif- or bmp-files. All results can be sent by e-mail.



RESEARCH

CONSULTANCY

MEASURING

TRAINING

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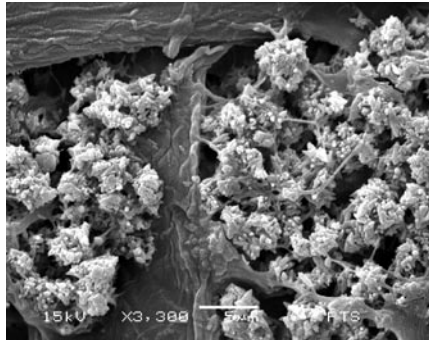
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**PAPER AND SURFACE ANALYSIS**  
 Scanning electron microscopy  
 X-ray microanalysis

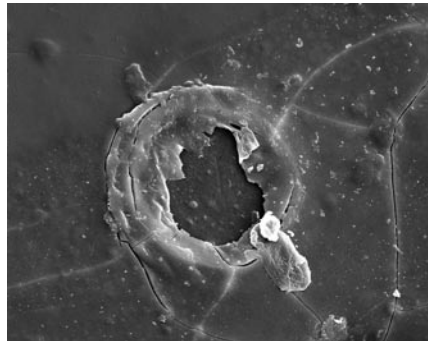
## ANALYSIS OF SURFACES AND CROSS-SECTIONS

Raw materials and products

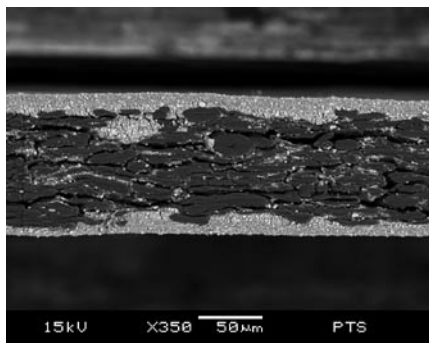


Fibres, pigments and fillers

Surface defects



Cross-sections



## X-RAY MICROANALYSIS (EDX) DETERMINATION OF INORGANIC CONSTITUENTS

(fillers, pigments, detrimental substances etc.)

EDX analyses show the spectrum and distribution of the elements contained in a sample (mapping).

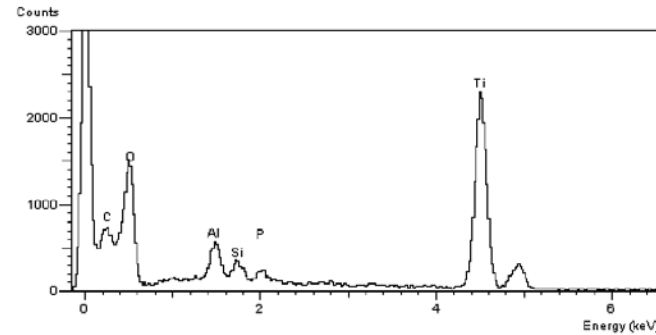
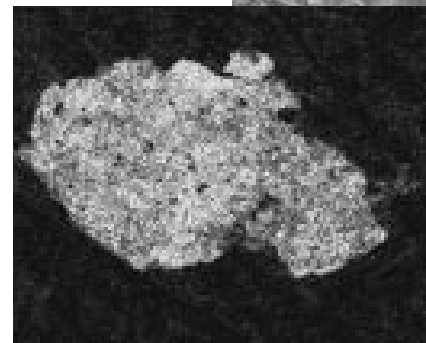
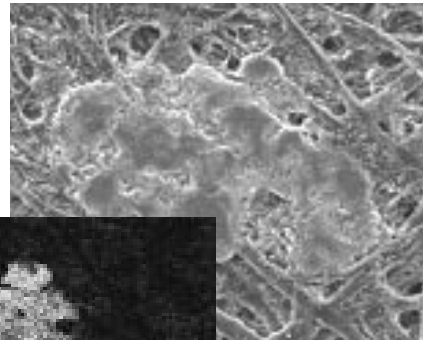


Image of a dirt speck

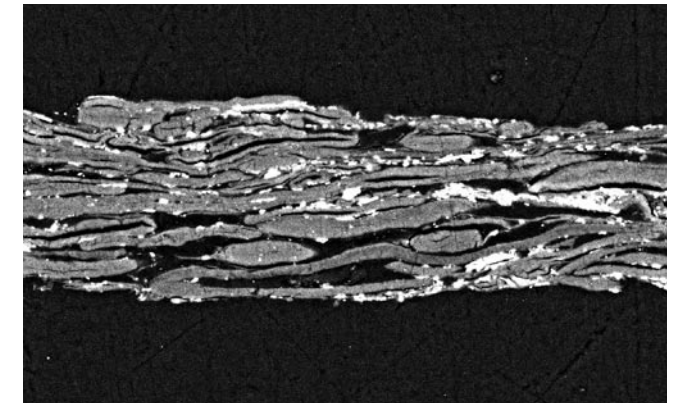


Distribution of titanium

EDX helps to analyse inorganic dirt specks or coated materials (multiple coatings, composite materials, functional coatings).

## Z-DISTRIBUTION OF FILLERS BY MEANS OF BACKSCATTERED ELECTRON AND IMAGE ANALYSIS METHODS

Samples are embedded in resin, ground and polished, and backscattered electron images are obtained and evaluated by means of the DOMAS image analysis system. This method can be used for all grades of paper. The results are available as Excel spreadsheet.



Z-distribution of fillers

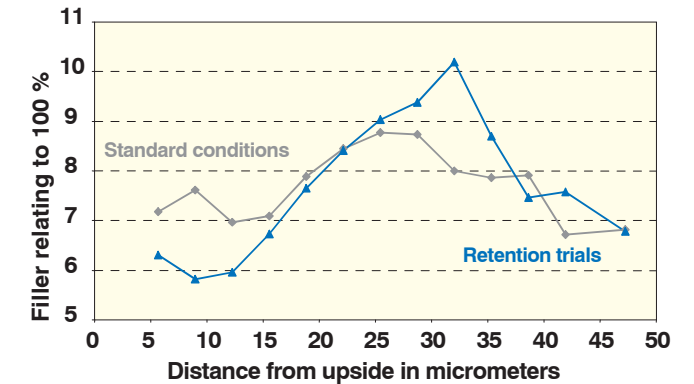


Image analytical measurements of the z-distribution of fillers are useful for analysis and documentation in the framework of retention and dewatering optimisations in papermaking and for developing new paper grades.