

TIDAS S MSP 200/400 for coal analysis



TIDAS MSP-systems from J&M offer:

the ability to measure UV-VIS spectra of fibres in transmission mode

all applications regarding reflectance (brightfield/darkfield), polarization or fluorescence, depending on the chosen configuration

acquisition time less than one second

on line video image and simultaneous acquisition of spectra with J&M TidasVision software

flexible adjustable measurement diaphragm

flexible use in forensic sciences (MSP400/800), in petrography (MSP200/MSP 400 CCD for coal) as well as in material sciences or biology (MSP200/400)

photomultiplier or CCD detection available

microscopes from different manufacturers can be adapted

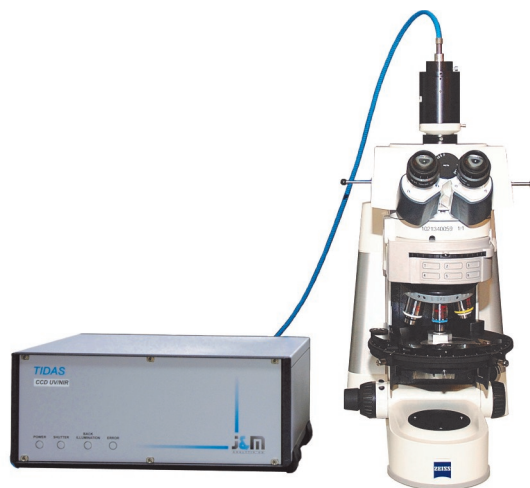
General

Petrographic analysis has been recognised internationally as important in the context of the genesis, metamorphism and usage of coal. The international Committee of Coal Petrography (ICCP) has made some recommendations concerning the nomenclature and the analytical methods. In ISO/DIN Norm 7404 the microscope preparation is described as well as the measuring procedure and the handling of the data in comparison with reflection standards. Detecting fluorescence spectra by coupling a very sensitive spectrometer to the microscope, other standards like the Thermal Alteration Index (TAI) or the Spore Colour Index (SPI) can be used for more detailed analysis in addition. The MSP 200 uses a PMT, the MSP 400 CCD a very sensitive spectrometer as detector.

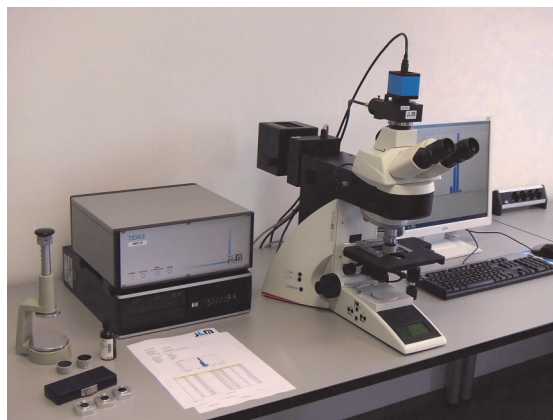
TIDAS MSP200/400

The TIDAS MSP200/400 instrument was developed especially for the needs in petrography and geochemistry. Depending on the chosen configuration of the instrument you can do reflection as well as fluorescence or polarization analysis on various samples. The J&M MSP200/400 is working according the DIN/ISO standard in the data acquisition procedure as well as in the analysis mode. Final histograms display the results in quantitative columns and relative shares. J&M's MSP200/400 systems are used in petrographic or geochemical laboratories all over the world.

TIDAS S MSP 400 with a Zeiss microscope



TIDAS S MSP 400 with a Leica microscope



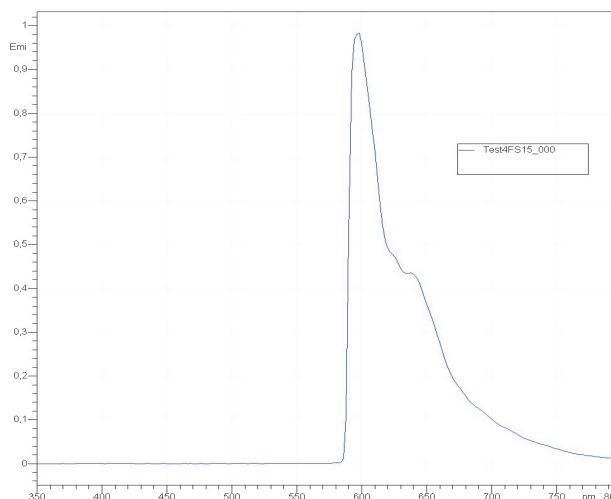
Software and accessories

With the MSP200-Software (Win XP/VISTA/7) from J&M you can control the complete system, adjust the measuring parameters and calibrate the instrument. Single values can be acquired or you can work according to the min/max-method. Data can be stored in up to ten different channels. Furthermore the software allows displaying the results as various histograms or tables. Printing or exporting the results into programs like excel or others is also possible.

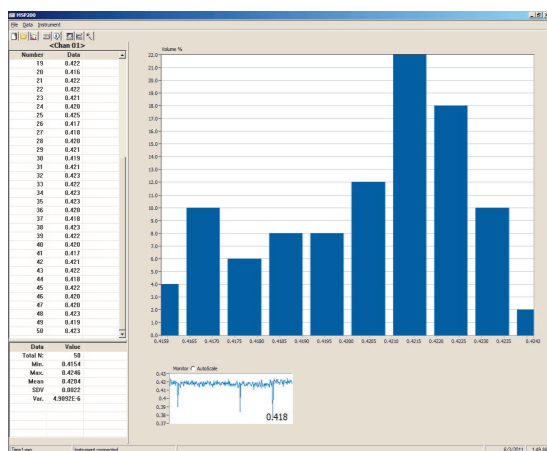
Finally, for a calibration of the system, J&M offers certified standards with different reflection values (diamond, sapphire, YAG, GGG).

Fluorescence evaluation is possible as well.

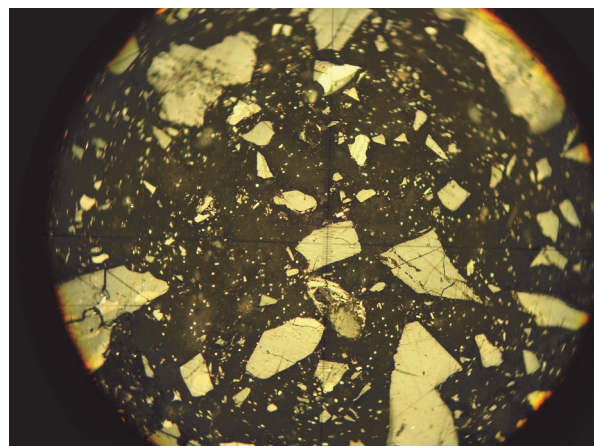
Fluorescence evaluation



Histogram data evaluation



Camera picture



Applications

- rank of coal determination by Vitrinite and Fusinite reflection
- characterisation of bituminous coal in Epi-fluorescence technique
- analysis of Kerogene
- determination of percent shares in multi component detection
- valuation of amorphous material, Algae and part of plants in palaeontology observations
- determination of maceral group compositions from bituminous coal and anthracite

Video imaging

On line video imaging and simultaneous acquisition of data is possible with J&M's TidasVision software. The flexible adjustable measurement diaphragm marks the region of interest directly on your sample image