

## TIDAS MSP systems from J&M offer:

- The ability to measure UV/VIS spectra of fibers in transmission mode
- All applications regarding reflectance (brightfield/darkfield), polarization or fluorescence, depending on the chosen configuration
- Acquisition time less than one second
- Online video image and simultaneous acquisition of spectra with J&M TidasVISION software
- Flexible adjustable measurement diaphragm
- Flexible use in forensic sciences (MSP 400/800), in petrography (MSP 200) as well as in material sciences or biology (MSP 200/400)
- Photomultiplier and CCD detection available
- Microscopes from different manufacturers can be adapted

## General

The TIDAS MSP 400/800 is especially designed for the needs of forensic scientists and can cover all applications regarding transmission, reflectance or fluorescence, depending on the chosen configuration. Polarization as well as UV are optional features depending on the configuration of the microscope.

Together with police labs the system was optimized and the software developed for an ergonomic and efficient use in forensic laboratories.

J&M has already installed a lot of systems in Europe, USA, South Africa and Asia.

## TIDAS MSP 800

J&M offers a basic system which is able to measure UV/VIS spectra of fibers in transmission mode and VIS spectra of fibers and paint in reflectance mode (brightfield and darkfield). The wavelength range of the spectrometer is 190 nm to 1010 nm but the range is limited by the optics in the microscope from 240 nm to 900 nm.

For polarization experiments a polarizer with compensator can be inserted into the optical beam. The spectral range for polarization is limited by the polarizer to 450nm to 700nm. In reflectance mode, the spectral range goes from 360 nm to 900 nm. Fluorescence measurements can be done as well, several sets of filters are available (UV, blue and green excitation is normally standard).

Additionally, a fast scanning monochromatic light source (260 nm to 680 nm) is also available.

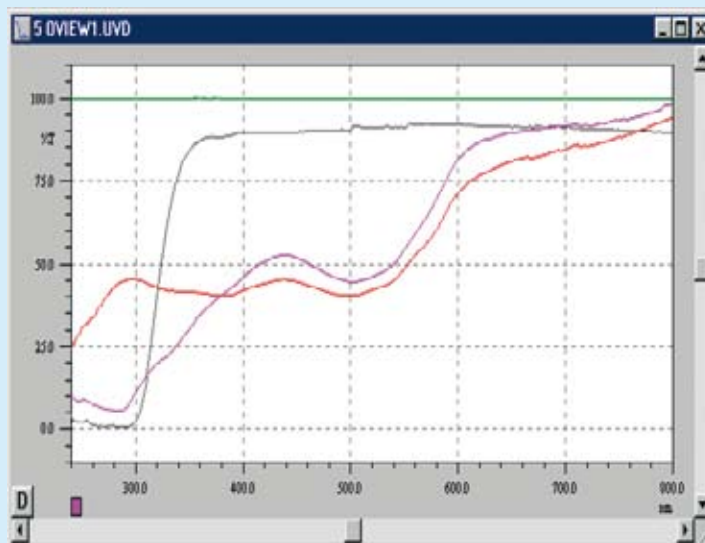
A full spectrum (240 nm to 900 nm) is usually acquired in less than 1 second.

Noise and acquisition speed depends on the chosen field of interest, given by the flexible adjustable measurement diaphragm. Minimum spot size is 2µm by 2µm using a 40x objective.

## MSP 800 with Zeiss microscope



## Example spectra



Base-Line (green), BK-7 / Stray light (grey), Wool-Fiber (red), Polyamide-Fiber (pink). Acquisition time = 1 Sec/ Spectrum

## Software and Accessories

J&M's Software allows easy instrument control. Additional available software packages offer many possibilities for data handling, documentation, export options and storage. You can create your own spectra libraries for an effective library search.

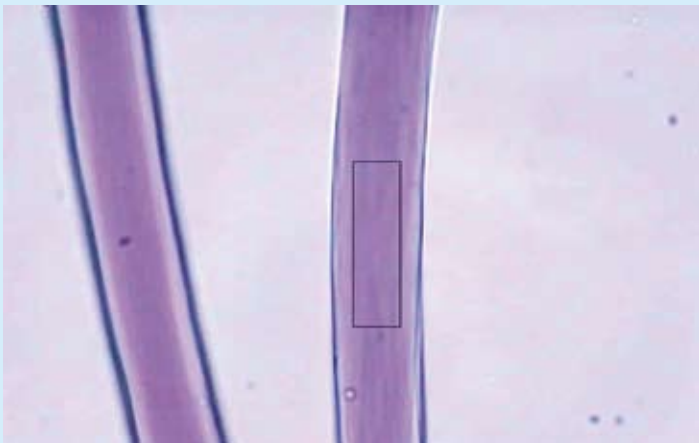
The instrument uses the CIE colour value system and is capable of generating complementary chromaticity coordinates (CCC) values.

Wavelength or photometric accuracy can be checked easily by grey or holmium filters, which are available as accessories.

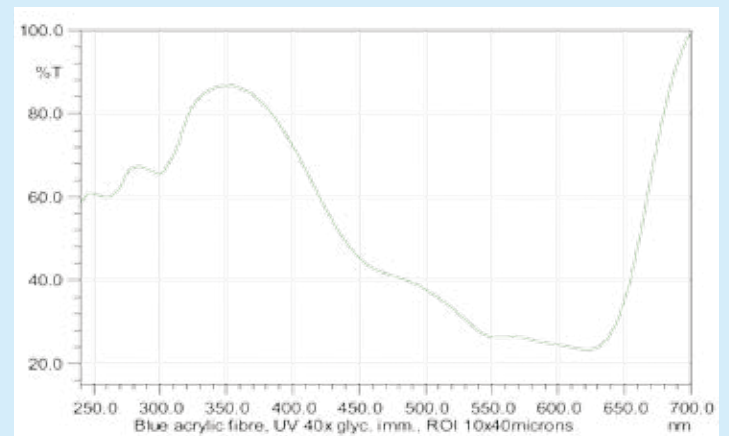
## MSP 800 with Leica microscope



## Camera picture of fiber, the frame marks the actual size of the analysed area



## Spectra of the sample



## Applications

- Examination of fibers in the UV/VIS range
- Analysis of particles in the UV/VIS range
- Certification of documents
- Quality control of TFT displays
- Analysis of LEDs

## Video imaging

Online video imaging and simultaneous acquisition of spectra is a highlight of this instrument. The flexible adjustable measurement diaphragm marks the region of interest directly on your sample image.