



EOTECH
more for science

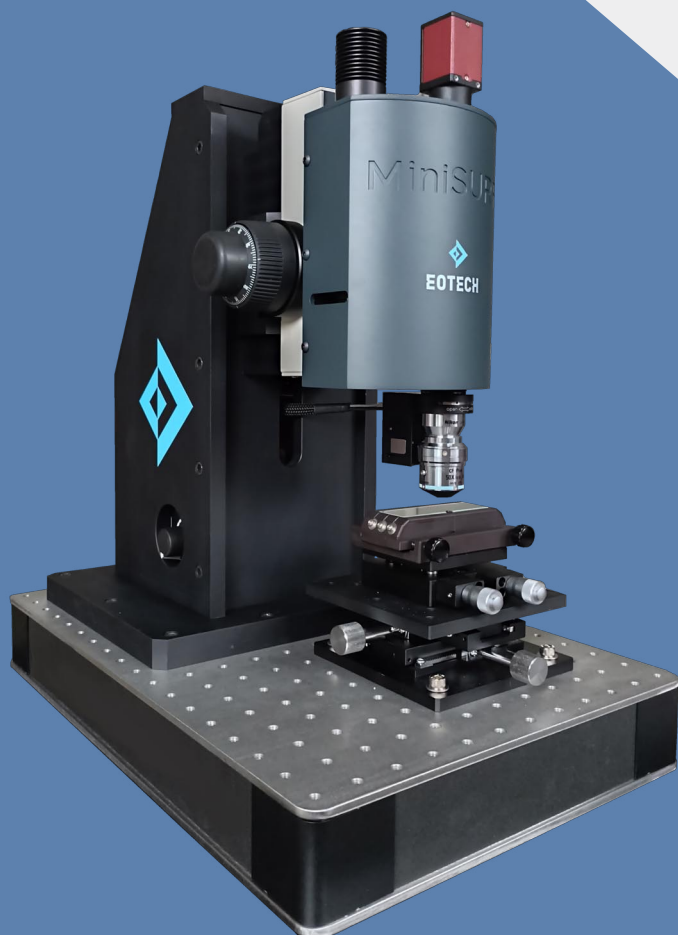


Hair

MiniSURF

Ex-vivo 3D imaging system
for micro-surfaces analysis

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Product description

Technology

MiniSURF is a full field optical profilometer, based on phase shifting interferometry. This microscope combines a black and white camera, a 50x high end interferometric lens, a LED light source and a high accuracy piezo electric motor. The optical head is mounted on a robust column fixed on a passive antivibration table.

Main features

No sample preparation is required. Being based on non contact techniques, it is a non destructive measurement. Its unique algorithm provides both contrast images and calibrated surface measurements and especially roughness parameters according to linear profiles, making it a perfect tool for hair surfaces state measurement.

Software

The MiniSURF software will guide the user to acquire the surface structure, and will calculate parameters like profiles and surface roughness, structure porosity and other parameters. The software allows to visualize contrast image and surface topography with stunning rendering, in order to illustrate clinical studies and to support the associated cosmetic claims for hair care products.

Applications



Single hair measurement:

- Scales
- Damages
- Surface state

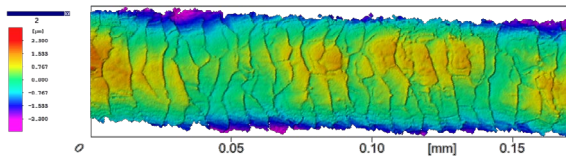
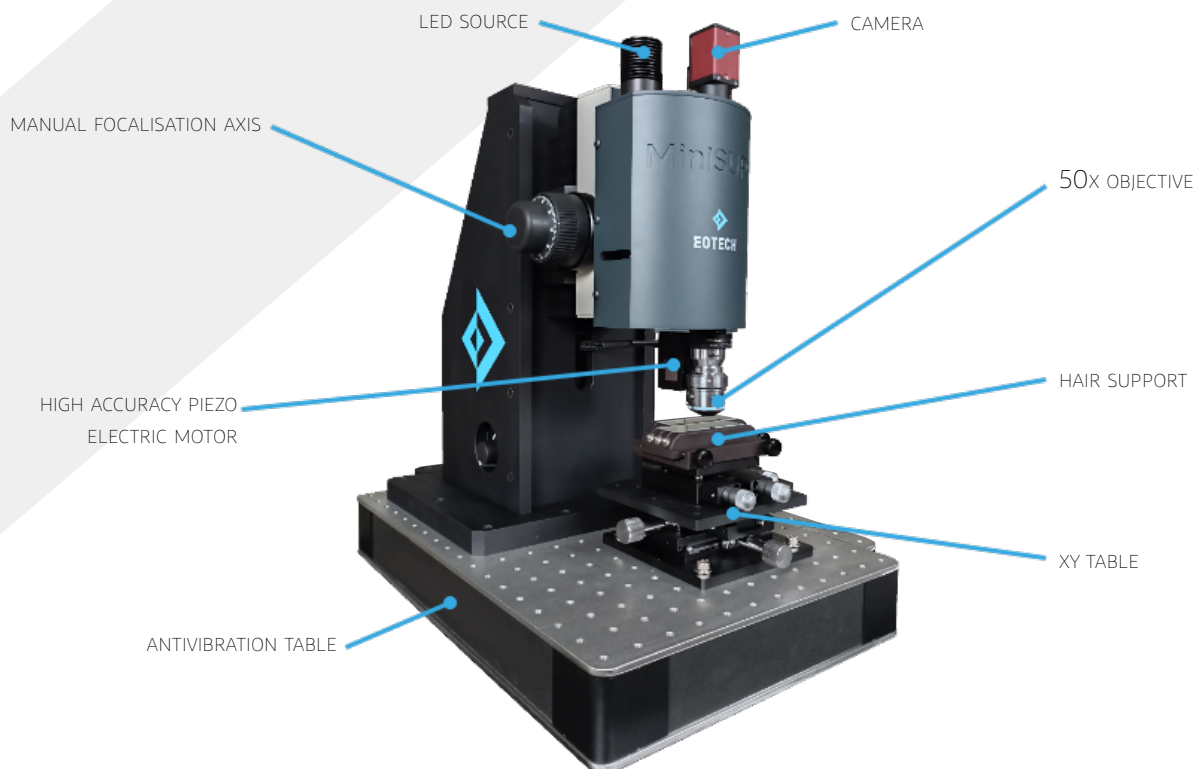
Advantages :

- Compact device
- Cost effective solution
- Non destructive
- Quantitative and qualitative results
- All-in-one software

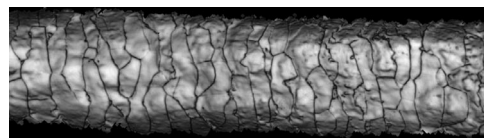
Cosmetic claims:

- Gloss
- Repair
- Smoothing
- Sheathing

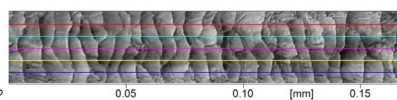
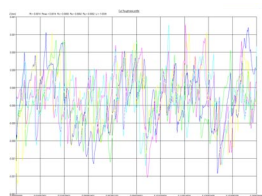
Technical data



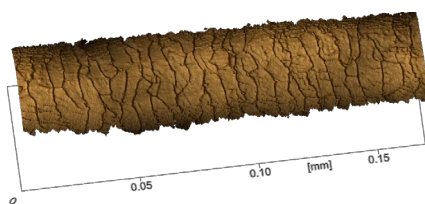
Surface



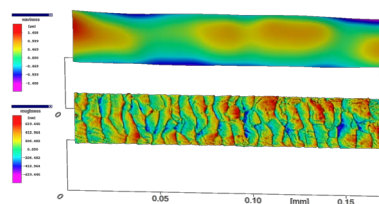
Contrast



Profiles roughness



Rendering



Cut Off

System specifications

| Characteristics | Value |
|-----------------|---|
| Illumination | LED (Wavelength : 565 nm ; FWHM : 104 nm) |
| Camera | 1456 x 1088 pixels (1.6 Mp) |
| XY range | 50 x 50 mm ² |
| Z range | 30 mm |
| Focus range | 100 µm |
| Weight | 30 kg |
| Size (LxHxP) | 450 x 450 x 300 mm |

Imaging specifications

| Characteristics | Value |
|--|-----------|
| Magnification | 50X |
| Measurement surface (µm ²) | 160 x 120 |
| Working distance (mm) | 3.4 |
| Optical resolution (µm) | 0.5 |
| Lateral sampling (µm) | 0.11 |
| Standard Z resolution (µm) | 0.05 |