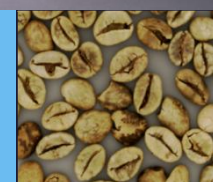
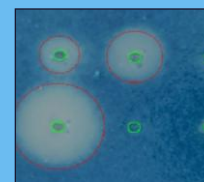


## Applications of VideometerLab 2 in rapid textile analysis

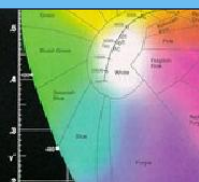


For more information contact:

**analytikLtd** (UK and Ireland Distributor)

Barn B, 2 Cygnus Business Park, Middle Watch, Swavesey, Cambridge, CB24 4AA

T: +44 (0)870 991 4044 F: +44 (0)870 135 2488 E: [info@analytik.co.uk](mailto:info@analytik.co.uk) [www.analytik.co.uk](http://www.analytik.co.uk)

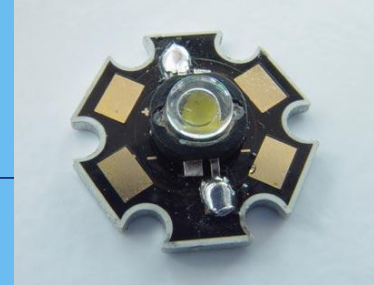




# Why use imaging on textiles?

- Mimic human vision
- Eliminate subjective assessment
- Non-homogeneous samples
- Focusing on certain areas of a sample
- When shape, size and especially texture are of special interest

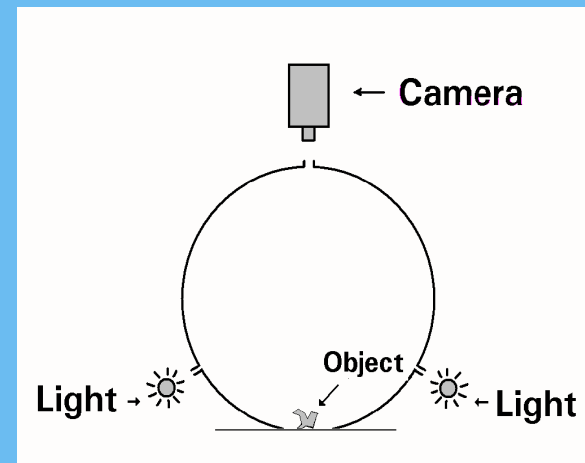




## Laboratory device for multispectral imaging

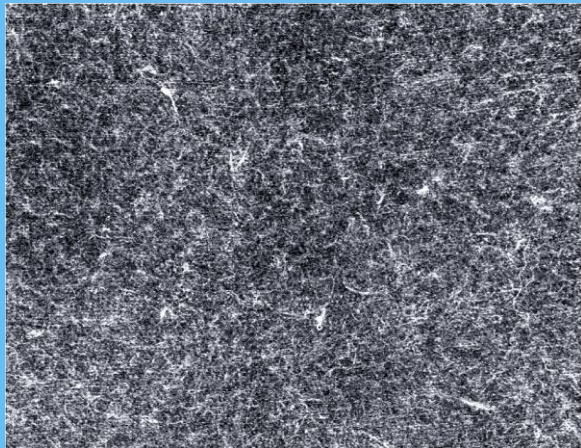
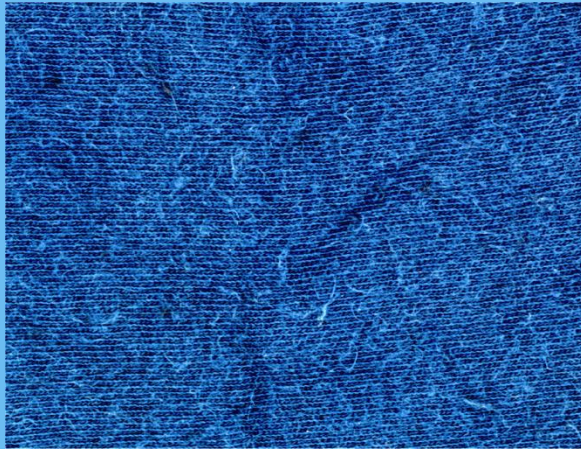


- Up to 20 spectral bands in the range 360 nm to 1050 nm
- Up to 2448×2048 pixels per band
- Very homogeneous and diffuse illumination
- Strobed LED light source

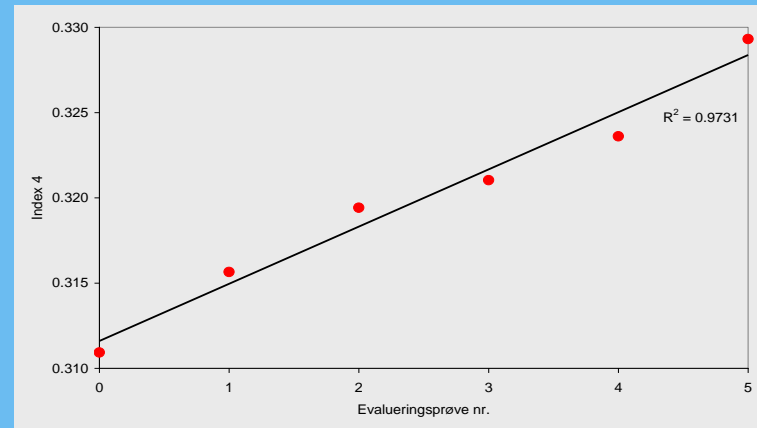


# Fuzz and Pill

The amount of 'fuzz and pill' can be measured by a linear combination of two wavelengths



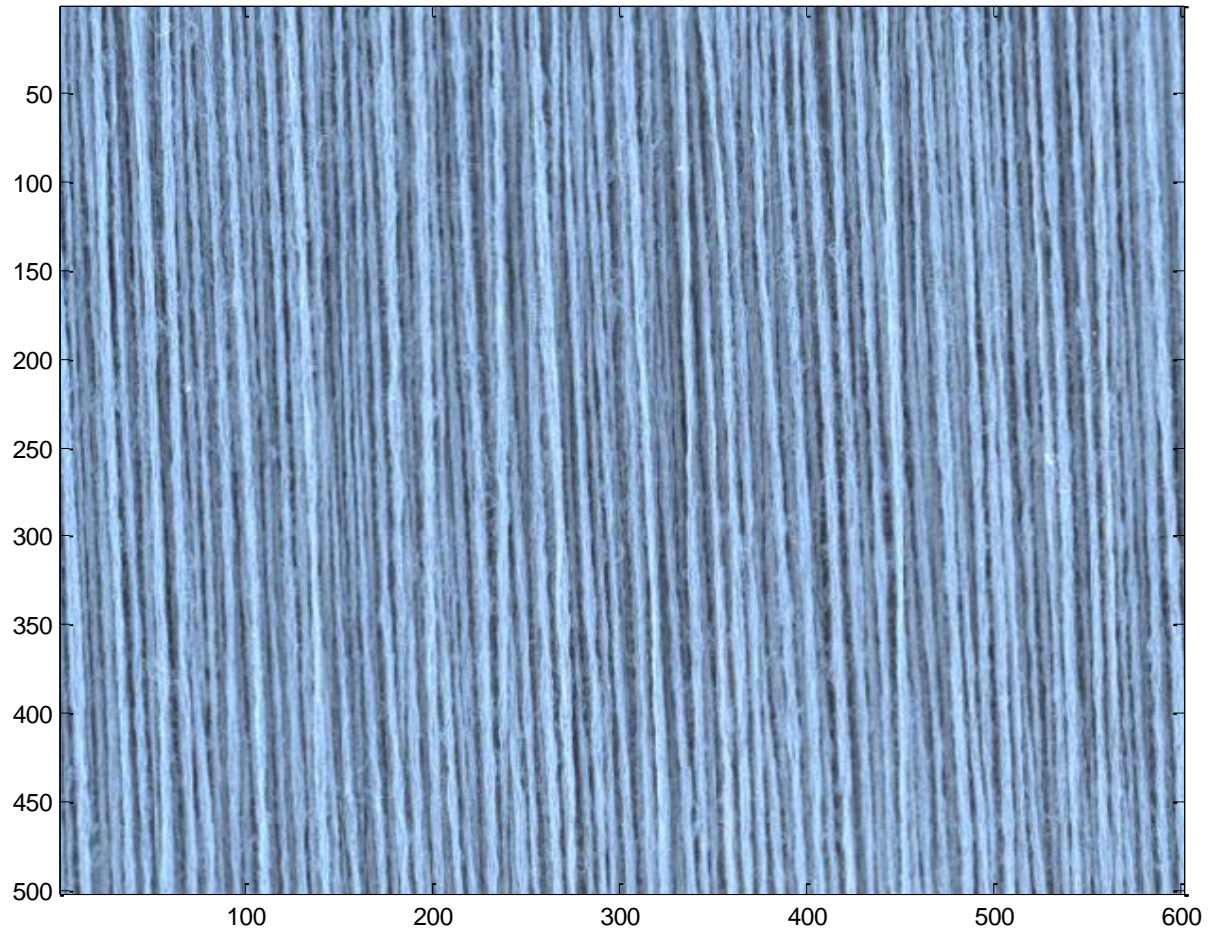
Used e.g. for measuring the efficiency of enzymes in detergents



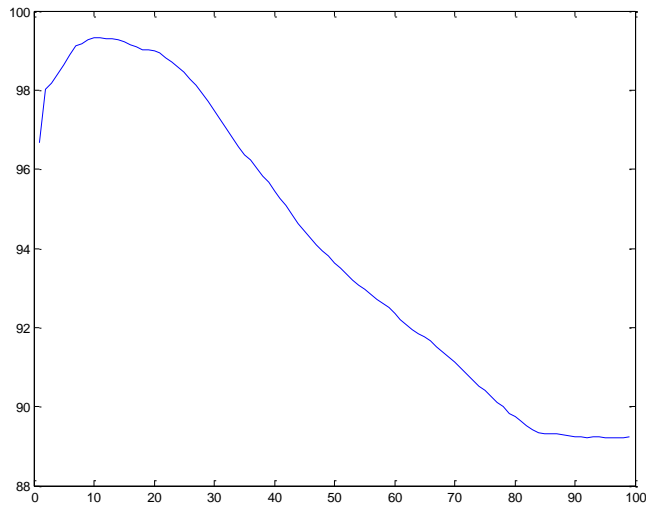
Correlation with human assesment (scale can be linearized if desired)



# Yarn and fabric color

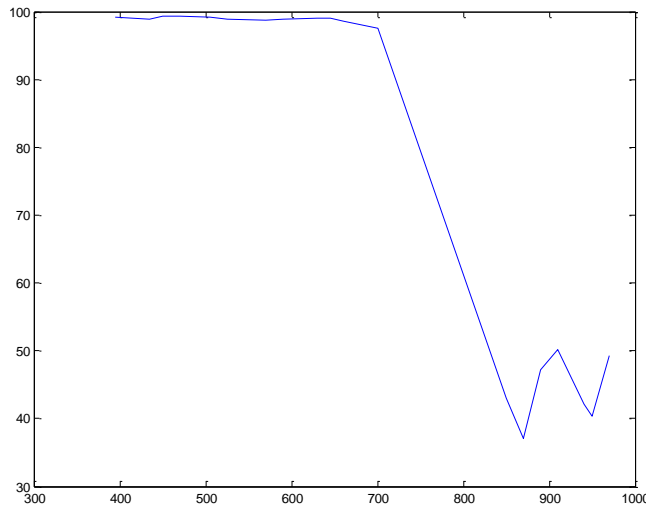


# Dose response trial – strength



The mean spectrum for a specific percentile of pixels with the highest negative curvature in the horizontal direction is computed.

Top figure shows the dose-explained variation vs. percentile for the best band (450 nm). Optimal dose-explained variation, 99.34%, is obtained for the 13% percentile.



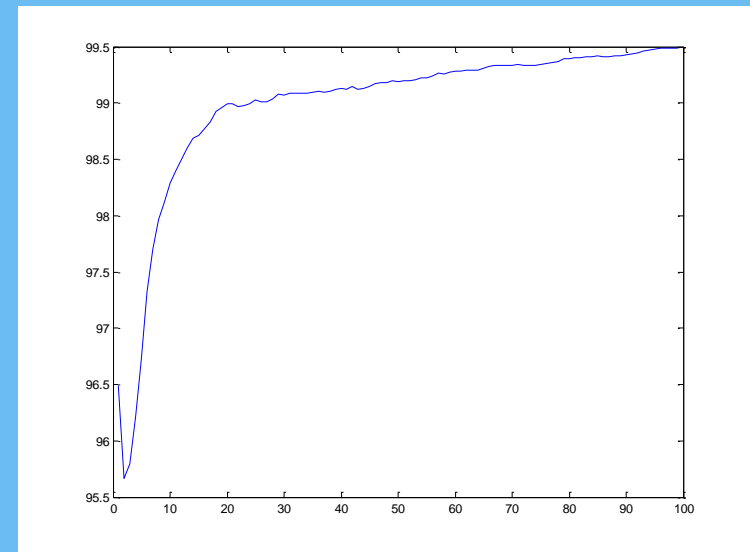
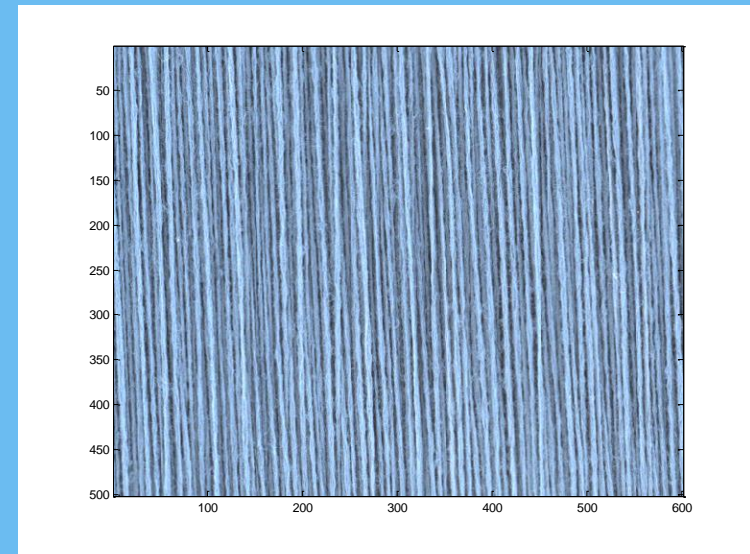
Bottom figure shows the dose-explained variation vs. wavelength at the 13% percentile. No significant difference below 700 nm.

Result should be compared to 87.3% of dose explained variation for conventional color measurements.

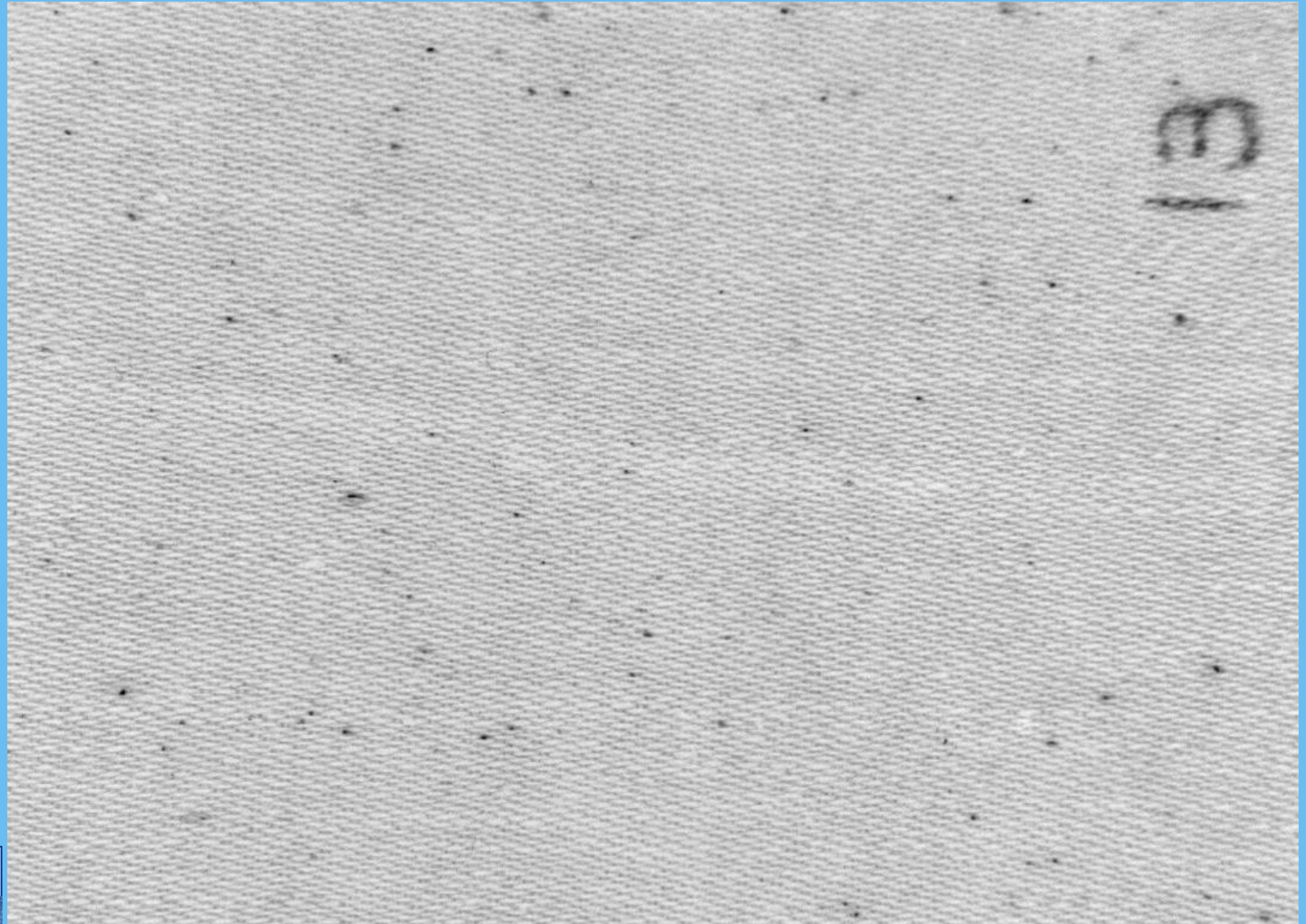


# Dose response trial - nuance

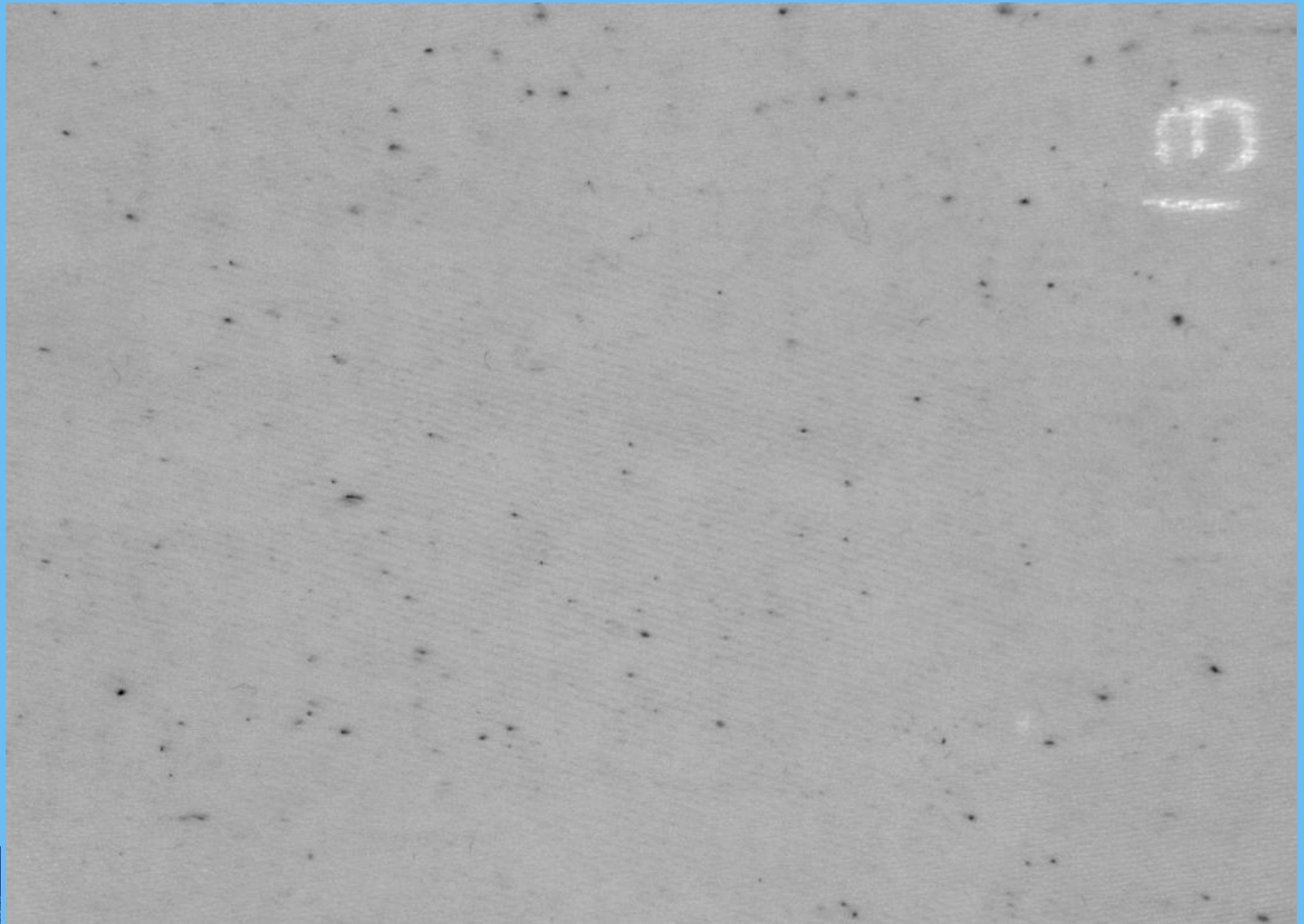
- Optimal amount of dose explained variation, 99.49%, is obtained using almost all pixels (97% percentile).
- Measurement based on the ratio: 660 nm / 435 nm
- All single bands and ratios between single bands have been tested.
- Result should be compared to 94.9% of dose explained variation for conventional color measurements.



# Seed coat fragments 435 nm



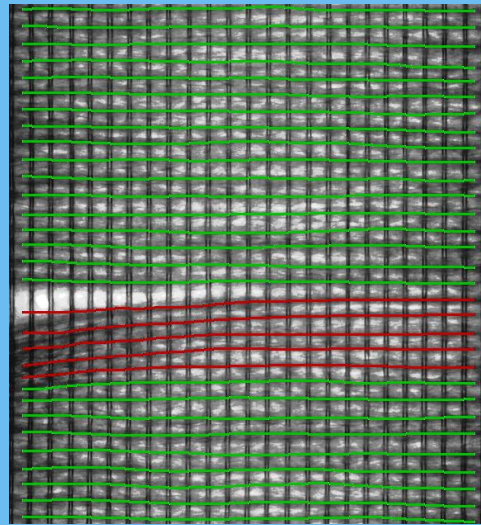
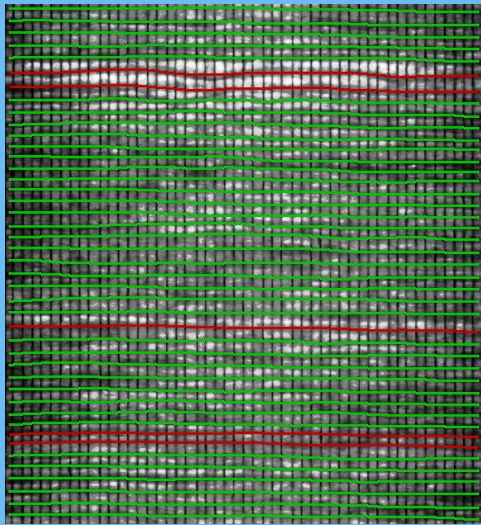
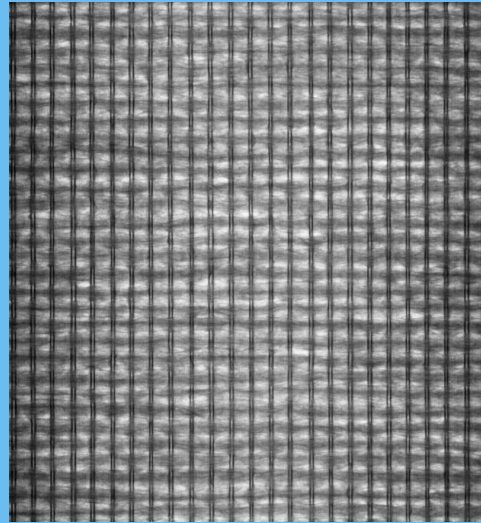
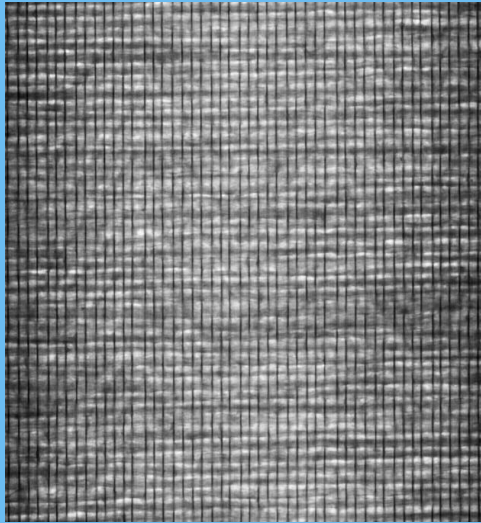
# Seed coat fragments MAF2



# Abrasion and backstain on denim



# Weave analysis



- VideometerLab 2 can be used for the rapid assessment of a great variety of textiles
- Results are obtained without any chemical preparation in under 10 seconds
- For more information contact Analytik (UK and Ireland distributor)

[www.analytik.co.uk](http://www.analytik.co.uk)

