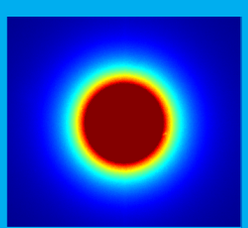
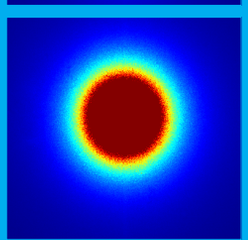
Dairy quality, mouth feel, graininess, and fat particle size distribution





A viscous product before and after acidification.

The VideometerSLS is a complete and unique sub-surface laser scattering system.

LASER SCATTERING MADE EASY

Videometer SLS

The Videometer SLS is a fast, and non-contact measurement technology packaged for ease-of-use in laboratory, or at-line in production. It measures several parameters for efficient characterization of viscous products.

The Videometer SLS uses short and long wavelength spectral sub-surface lasers to allow different penetration depths into the product. The lasers are scattered perpendicularly to one-another the emphasize the differences in structure of the products.

VideometerLab SLS
KEY FEATURES AND ADVANTAGES

- Integrating sub-surface laser scattering. Measurement of light scattering from two by two laser beams. The laser beams penatrate the product and are scattered due to reflection and refraction.
- Images of the surface and the scattered beams can be used for calculation of parameters and size distribution of air bubbles, constituents, viscosity, mouth feel and more.
- Two by two laser beams (Red and blue).
- Spectral imaging and quantitative analysis in 1 second.
- White light for standard surface scattering.
- Long lifetime of the light sources. Up to 100.000 hours.
- Increased stability due to LED source technology.
- Automatic movement of illumination in relation to the sample.
- Powerful exploratory software for R&D.
- Recipe building tool for easy-to-use routine applications.

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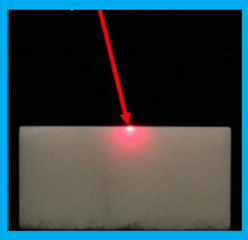
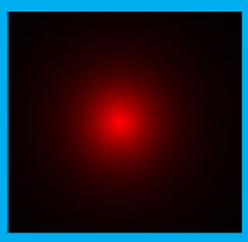
Videometer SLS
TECHNICAL SPECIFICATIONS

Light sources	2x2 laser diodes with two wavelengths (405nm and 650nm), perpendicularly oriented. 4 white LEDs for recording a standard image.
Image size	5472 * 3648 pixels
Resolution	~40 µm / pixel (optionally ~30 µm).
Dynamic range	Optimized according to the application using autolight setup.
Sample size	Free height max. 90 mm, diameter of inspection opening 110 mm.
Time of complete analysis	1-2 seconds per sample.
Dimensions instrument	425 mm(h) * 300 mm(w) * 310 mm(d).
Weight	11.00 kg.
Power supply	110-240 VAC, 50/60 Hz.
Ambient temperature	Operation: 5-40 °C, Storage: –5-50 °C.
Ambient humidity	20-90 % RH non-condensing.
PC requirements	Minimum configuration: Intel i7 10th generation or better, 16 GB RAM, USB2 port, USB3 SuperSpeed port.
Software requirements	Microsoft Windows 10/11 Professional 64 bit, full Windows update.
Hardware options	Upgrade to additional LEDs or lasers
Software options	Session model builder Automated time sequence studies Development of customized calibrations for texture measurements

Videometer offers a wide range of spectral imaging instruments measuring what you see with your eyes – and beyond. They are fast, non-destructive, versatile, and reproduceable with world-leading accuracy. The accompanying Videometer software provides a unique variety of machine learning and AI spectral imaging analysis tools. Laboratory, at-line, on-line, and in-line systems are designed for quality assurance, process control, PAT, and product development.





The sample is illuminated using one or more laser beams and the image of the light spot backscatter

Cultured (top) vs. skimmed (bottom) milk measured using a 650nm laser.

The Videometer SLS system is perfect for the analysis of texture in dairy products.

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