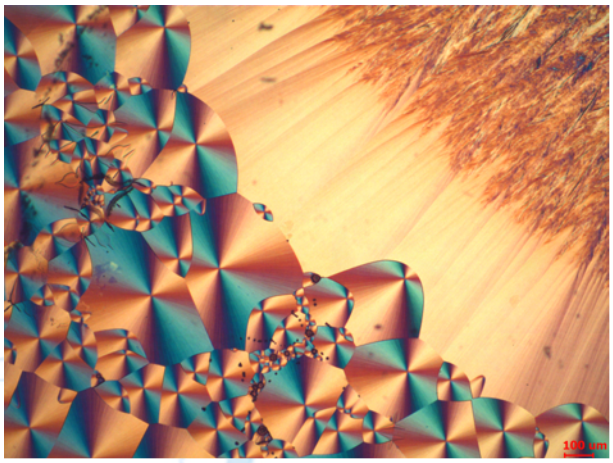
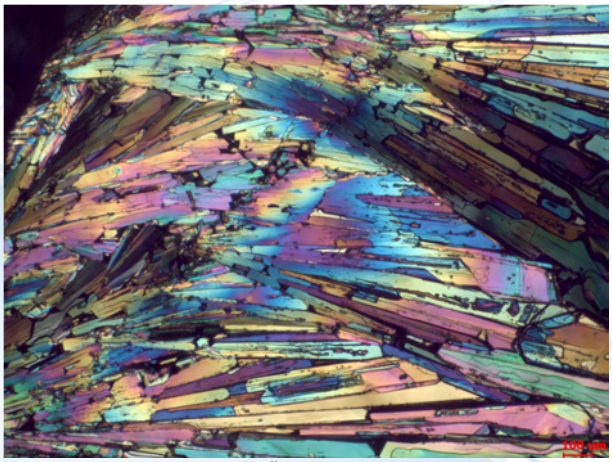
MICROVISION
LABORATORIES, INC.

POLARIZED LIGHT MICROSCOPY

Using light microscopes to examine the optical and structural properties of samples is one of the oldest and most useful analytical techniques. The use of polarized light allows for the examination of the internal birefringence, or variation in optical indices within a sample. The unique properties of birefringence allow for the differentiation of fibers, minerals, ceramics, and other biological materials. Additionally, many opaque materials such as paints, coatings, and metallic particles will show polarized reflectance. Therefore, polarized light microscopy allows for the identification of a wide range of particles. These particles can be comparatively quantified, resulting in the characterization of the components in a sample.



Multi-phase Mount of Cholesterol Acetate

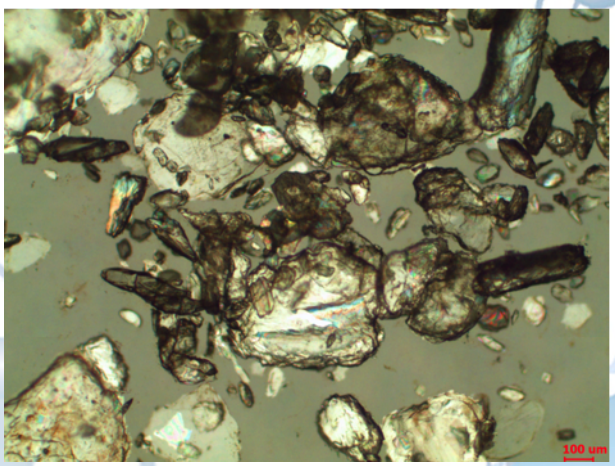

Sodium Acetate

Advantages:

- An extremely wide range of materials can be characterized by experienced analysts
- Dust or mixed material samples can be examined to estimate the composition by percent in the sample
- Standards compared to a sample assist in determining if there is a contribution at the site
- Specific particle types or materials (soots, fiberglass, metals, polymers, etc.) singled out for analysis
- Allergens, irritants or industrial debris all easily identified

Application Fields:

- Environmental Analysis
- Indoor Air Quality Analysis
- Unknown Materials Identification
- Soot Identification
- Insurance Adjustment/Home Inspection
- Manufacturing and Industrial Hygiene
- Textiles and Fiber Analysis
- Mineralogy and Geology
- Paint and Coating Analysis



Salt Crystals in Settled Dust

Learn more at http://www.MicroVisionLabs.com

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