

## Dynamic Stress Imaging

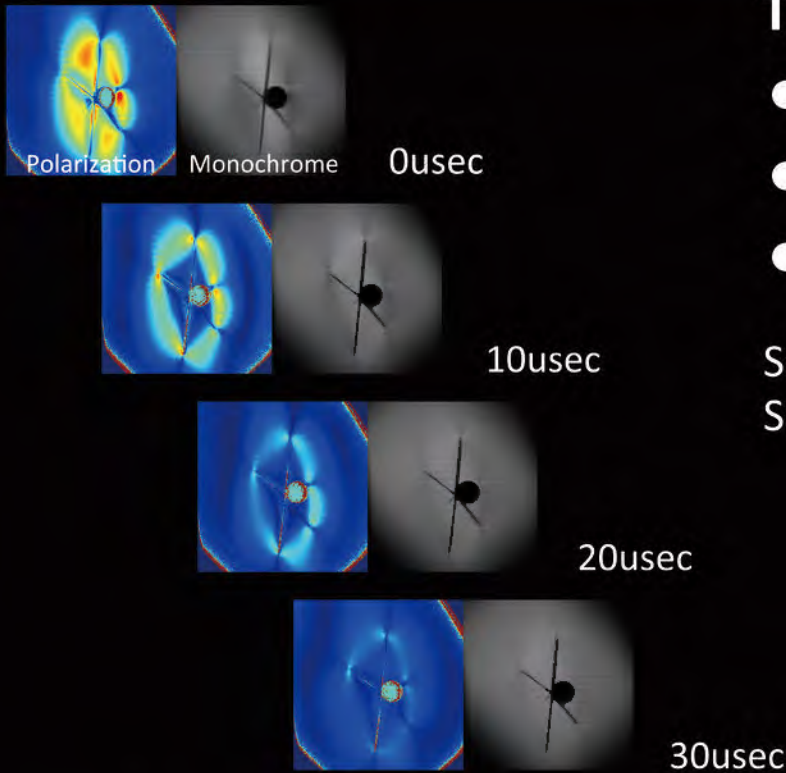


Fig1. Internal Stress Distribution by Impact test with a bullet.

### Target Field

- Defense and Aerospace
- Materials Science
- Academic Research

Sample : Acrylic Resin  
Sampling Rate : 100,000fps

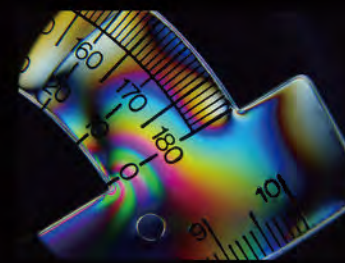
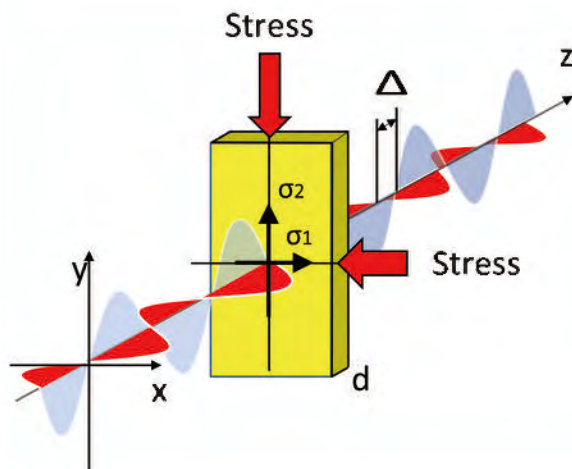


Fig2 . Photoelastic Effect.

## Principle of Stress Imaging



$$\Delta = \phi_x - \phi_y = \frac{2\pi}{\lambda} (n_1 - n_2) d = \frac{2\pi C}{\lambda} (\sigma_1 - \sigma_2) d$$

$\Delta$  : Birefringence Phase Difference

$C$  : Photoelastic Coefficient of the Sample

$\sigma_1 - \sigma_2$  : Principal Stress Difference

$d$  : Thickness of the sample

# OEM & Integration into Various Systems

High-speed polarization cameras are designed for OEM and easy integration into various systems. Compact Model, High-speed Model, and Real-time Image Processing Model can be selected according to the various purposes.

## As Object Recognition Device

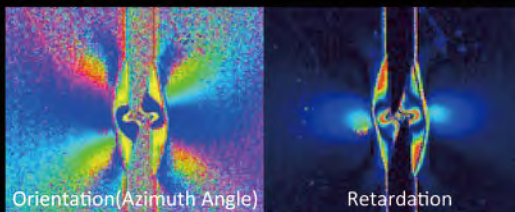


### Target Application

- Traffic & Infrastructure
- Defense and Aerospace

Fig1. Application Example of Window Tracking of Running Vehicles by 1,000fps

## For Polymer Orientation Analysis

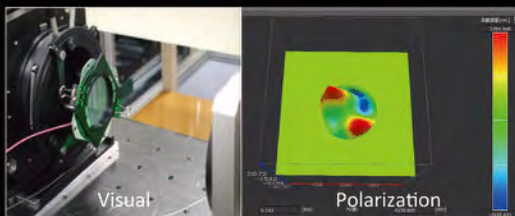


### Target Application

- Materials Science
- Polymer Research

Fig2. Application Example of Dynamic Polymer Orientation by microscope with the frame rate of 30,000fps.

## As 3D Shape Analysis Device



### Target Application

- Vibration Analysis

Fig3. Application Example of Dynamic 3D shape Measurement with higher spatial resolution of nano-order at 7,000fps.