HIGH-SPEED IMAGING FACILITY

- High-speed imaging systems are available for the real-time visualization of dynamic deformation and failure. With a laser illumination source, optical interferometry is typically employed to provide quantitative information regarding the evolution of deformation and failure on a microsecond time scale.

Cordin 330A High-Speed Film Camera

Coherent Pulsed Ar-Ion Laser
- High-speed film camera
  - Cordin Model 330A
  - 2 million frames/second
  - 80 frames
- Pulsed laser system
  - Coherent pulsed Ar-Ion
  - Pulse duration: 10 ns
  - Pulse rate: 5 MHz
  - Synchronized with camera
HIGH-SPEED IMAGING FACILITY (Cont’d)

Ares Rosakis and G. Ravichandran

Cordin 220-16 High-Speed Digital Camera

- High-speed digital camera
  - Cordin Model 220-16
  - 100 million frames/second
  - Intensified CCD system (electronically shuttered)
  - 16 frames / 800 x 600 pixels

- Laser system
  - Coherent Ar-Ion
  - 10 watts continuous

Coherent Ar-Ion Laser