Ares Rosakis

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-lon
 - 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-lon
 - 10 watts continuous



Coherent Ar- Ion Laser

