

Speckle interferometry using liquid crystal and its application to vibration analysis

Nur Hasanah, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=80914&lokasi=lokal>

Abstrak

Speckle Interferometry method capable for determining both the vibration amplitude and phase shifting So that double exposure for the vibration analysis applying speckle pattern interferometry is reported. Its method is recorded on a negative film using double-exposure; two object states which are peak and valley of the object vibration are recorded. The film with double exposure is then illuminated with coherent light, and each pair produces of speckle becomes the slits of Young's experiment With using Liquid Crystal as phase modulator (switching pulse), so that switching pulse should be synchronized to the peak or valley of the object vibration. The vibration object using Ceramic Vibrator (PZT) were put on the tuning fork surface.