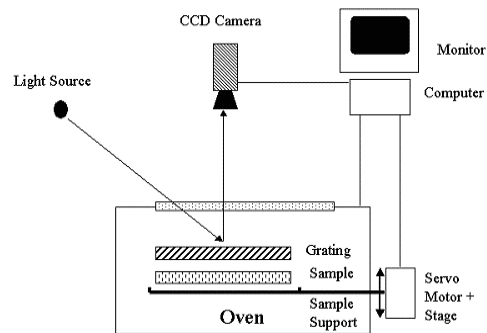


Shadow Moiré

Technical Explanation

Shadow Moiré is a non-contact, full-field optical technique that uses geometric interference between a reference grating and its shadow on a sample to measure relative vertical displacement at each pixel position in the resulting image. It requires a Ronchi-ruled grating, a white line light source at approximately 45 degrees to the grating and a camera perpendicular to the grating. Its optical configuration integrated with the heating chamber is shown in the figure below. A technique, known as phase stepping, is applied to shadow moiré to increase measurement resolution and provide automatic ordering of the interference fringes. This technique is implemented by vertically translating the sample relative to the grating.

Diagram



Akrometrix

2700 NE Expressway
Building B, Suite 500
Atlanta, Georgia 30345
Tel: 404-486-0880
Fax: 404-486-0890