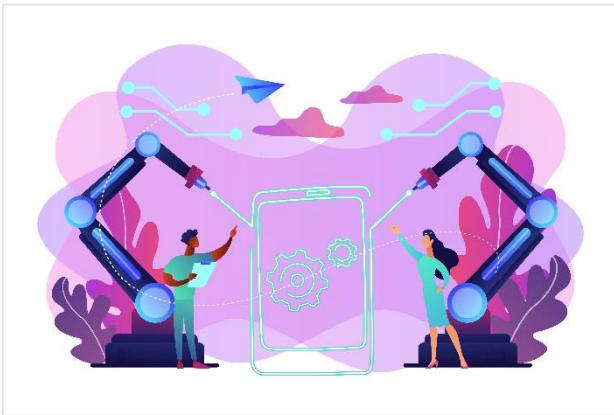


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## METHOD AND APPARATUS FOR OPTICAL BEAM COLLIMATION TESTING



### ▶ MORE INFORMATION

#### MEGA-TREND

- **Chemicals and Materials**

#### TECHNOLOGY READINESS LEVEL (TRL)

- **TRL 2**

#### PATENT/ GRANTED NUMBER

- **PI 2011000405**

### ▶ TECHNOLOGY OVERVIEW

The present invention provides a method and apparatus for optical beam collimation testing. The apparatus includes a lateral shear interferometer capable of accommodating optical beams with beam sizes that vary over a wide range. The lateral shear interferometer includes a pair of isosceles triangular prisms in one embodiment, displaced at symmetrically opposing ends to form an air wedge that serves to laterally shear an optical beam from an optical source to thus consequently form a pair of overlapping sheared beams that form an interferogram on an observation screen, and a beam splitter.

The technique consists of laterally shearing an input optical beam to be tested for collimation by means of said lateral shear interferometer to produce a pair of overlapping sheared beams that combine by way of interference to form a beam with a fringe field and further splitting the beam into component beams with fringe field patterns of symmetrically opposite angular orientation on the plane of the apparatus to thus produce a pair of interferograms one being the reference for the other interferogram by means of said beam splitter.

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## CONTACT US!

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