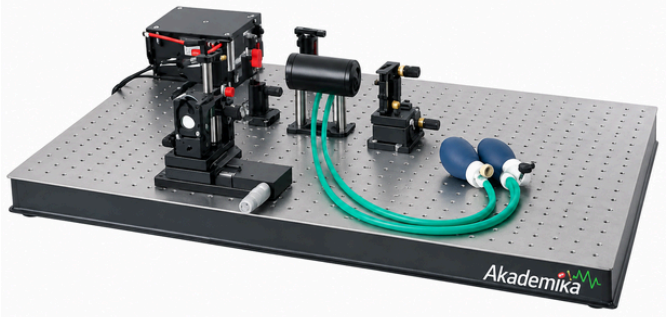
FOL-MI

Michelson Interferometer Experimental Setup



FEATURES

- Laser diode used as the light source.
- Precision kinematic mounts provided for optical components.
- Research-grade optical components used throughout the instrument.
- Modular design for easy assembly and alignment.
- Individual components can be assembled and adjusted independently.

SPECIFICATIONS

Optical Breadboard with Support
- Dimensions: 800 mm × 600 mm
- Material: Stainless Steel
- Quantity: 1 No.

Mirror Mount with Precision Translation
- Adjustment Range: ±3 degrees
- Material: Black anodized Aluminium alloy
- Least Count (Micrometer): 0.01 mm
- Quantity: 1 No.

Mirror with Cell
- Diameter: 25 mm
- Thickness: 6 mm
- Material: Borofloat
- Coating: Aluminium
- Quantity: 2 Nos.

Diode Laser with Power Supply (Green)
- Wavelength: 532 nm
- Optical Power: 5 mW
- Quantity: 1 No.

Mirror Mount with Translation
- Adjustment Range: ±3 degrees
- Fine adjustments: Using 80 TPI lead screws
- Material: Black anodized Aluminium alloy
- Quantity: 1 No.

Pressure Cell
- Length: 10 cm
- Pressure Range: 0 – 300 mm Hg
- Quantity: 1 No.

Diode Laser with Power Supply (Red)
- Wavelength: 650 nm
- Optical Power: 5 mW
- Quantity: 1 No.

Beamsplitter Mount
- Adjustment: 2 degrees
- Range: Black anodized
- Material: Aluminium alloy
- Quantity: 1 No

Screen with Mount
- Dimension: 75 mm × 75 mm
- Quantity: 1 No.

Glass Slide
- Dimension: 75 mm × 25 mm
- Thickness: 1 mm
- Material: Float
- Quantity: 5 Nos.

Kinematic Laser Mount
- Material: Black anodized Aluminium alloy
- Adjustments: Using 80 TPI lead screws
- Adjustment Range: ±3 degrees
- Quantity: 1 No.

Rotation Stage
- Resolution: 1° / division
- Material: Black anodized Aluminium alloy
- Quantity: 1 No.

Beamsplitter
- Dimension: 50 mm × 50 mm
- Thickness: 6 mm
- R/T Ratio: 50/50 iv) Material: N-BK7
- Coating: Aluminium
- Quantity: 1 No.

ACCESSORIES

i) Thumb screws ii) Dust protective cover iii) User manual

EXPRIMENTS

- To Determine Wavelength of laser beam
- To find Refractive index of a transparent material
- To study Refractive index change in air under different pressures and determination of refractive index in air