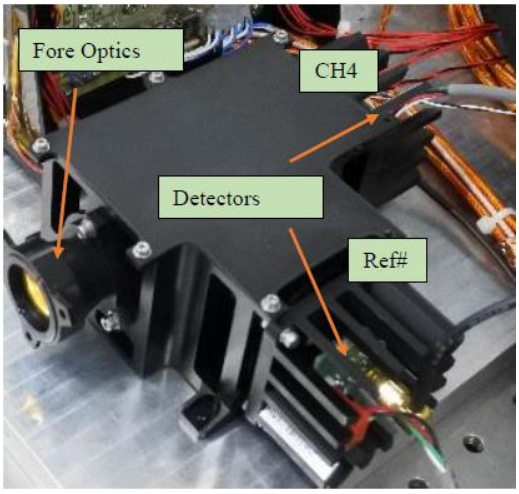
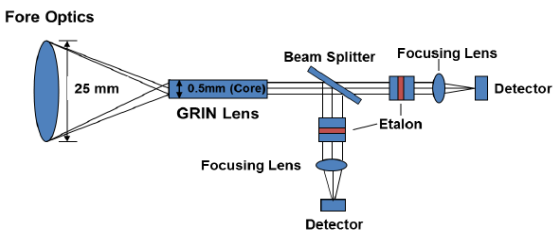


Miniaturized methane sensor based on GRIN lens

Space Applications Centre (SAC) has developed a miniaturized methane sensor using GRIN lens and small etalons is developed which measures Earth methane using airborne platform. This is a first of its kind of sensor based on GRIN lens. The lens is 1.8 mm clear aperture and 4.54 mm of length. The sensor can be flown from spaceborne platform (for Earth's Methane observation) with proper qualification and modification in electronics and including necessary interfaces.

GRIN Lens replaces collimating optics



Applications area

The potential application areas are Industries, agricultural department / universities, dairy research, paddy cultivation, Livestock, Environmental science departments. The payload is primarily designed for airborne platform. The weight and power of the instrument is also suitable for nanosatellite.

Salient Features

Parameters	Values
Detector Type	InGaAs, Single Pixel detector, One for each Channel
Detector size	1 mm
Fore optics diameter	24.5 mm
Focal length	25.4 mm
IFOV	39.3 mrad
Responsivity	1 A/W
Targeted Methane concentration measurement and SD	1800 ppb of Earth's atmospheric column with SD ~100 ppb.

Technology Transfer

SAC/ISRO offers to transfer this technology of the **Miniaturized methane sensor based on GRIN lens** developed by SAC to industries in India with adequate experience and facilities. Enterprises interested in obtaining knowhow may register and submit their proposal to IN-SPACe, Ahmedabad at www.inspace.gov.in

For more details, Contact:
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SAC Technologies