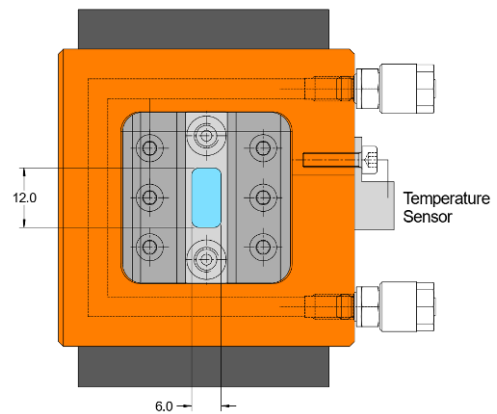
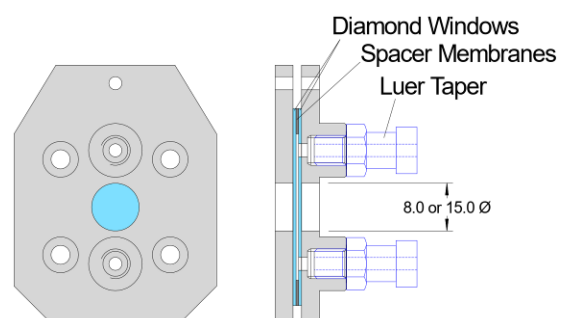
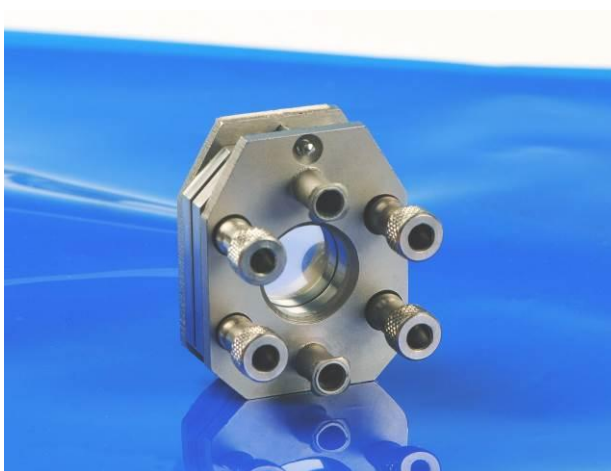


Diamond Liquid Cells

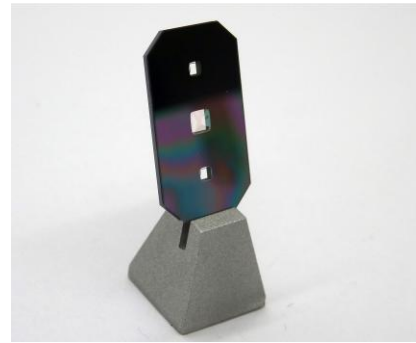
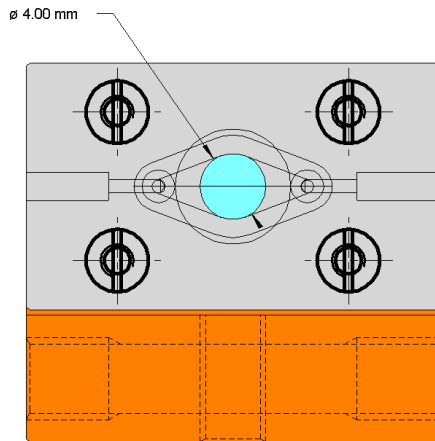
Liquid cells are used for the spectroscopic analysis of liquids. They consist of two windows with well-defined spacing. While quartz glass is the common window material in the visible, diamond is the ideal choice for the infrared or even terahertz spectral range. This application benefits from the broadband transparency, extreme chemical inertness and unsurpassed hardness of diamond.



Diamond liquid cell mounted in copper body with cooling/heating channels for temperature control



Modified A 145 cell (Bruker Optics) with two embedded diamond windows



Cost-effective design alternatives for diamond liquid cells

Path Length

- The path length (distance the IR beam travels through the liquid) is crucial for accurate measurements. It typically ranges from 10 μm to several hundred micrometers and it is defined by spacers that are available on request.

Sealing Mechanism

- The cells are demountable to allow easy cleaning. The cells are filled via two ports (Luer taper or syringe connectors)

Applications

- Chemical and pharmaceutical analysis (e.g., monitoring reactions, purity testing).
- Environmental studies (e.g., water contamination analysis).
- Petrochemical industry (e.g., fuel characterization).
- Biological research (e.g., protein and lipid studies in aqueous environments).

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