

1 ATR SAMPLING

Thunderdome

The Thunderdome is a unique single reflection HATR that utilizes a spherical ATR crystal as the sample contact surface. The spherical configuration produces a nominal 2x reduction of the beam diameter, concentrating the energy to analyze smaller samples, as compared to other single reflection ATR accessories. The other important advantage of the more defined sample surface is the ability to exert greater pressure to the sample for optimum sample to crystal contact. This unique "point-to-point" contact between sample and crystal is ideal for analyzing hard, rigid, unyielding, and often difficult to analyze materials.

The New Liquid Holder extends the usefulness of the Thunderdome. The liquid holder can be attached easily, requiring no modifications to the base unit. The "swimming pool" design optimizes small volumes and ease of cleaning.

The Thunderdome utilizes an extremely rugged germanium ATR crystal which has a spectral range of 4000-675 cm^{-1} . The crystal material and shape makes Thunderdome a good general purpose IR accessory. The germanium crystal gives a small depth of penetration which is ideal for highly absorbing carbon filled material. It is well suited for the analysis of single polymer beads, hard polymers, and glass substrates. The Thunderdome eliminates the need to press polymer films, which is not only time consuming, but may change the morphology of the substance. With the Thunderdome you can perform both quantitative and qualitative measurements. It is completely purgeable, alignment free, and baseplate configured to your bench for maximum reproducibility.

Specifications

Crystal Type: Germanium single reflection, spherical configuration

Angle of Incidence: 45 degrees

Accessory Mounting Configuration: Baseplate mounted

Pressure Device: Built in Pressure Tower with safety mechanism to prevent crystal damage

Applications

- Single polymer beads
- Formed, rigid polymers
- Paint chips
- O-rings
- Paper/contaminants
- Glass Composites
- Liquids, including aqueous solutions, corrosives and caustics
- New liquid holder extends usefulness of the Thunderdome
- Liquid volume: approximately 1.8 ml, useful pH range: 1-14



Product Features

- ◆ Spherical sample area provides easy to locate placement
- ◆ Single reflection Ge ATR crystal
- ◆ "Point-to-point" contact with Pressure Tower
- ◆ Pressure Device with safety mechanism

Product Advantages

- Concentrated sample area produces high quality, excellent signal to noise spectra
- It is ideal for strong IR absorbers
- It is ideal for hard, rigid, and difficult to analyze samples
- Eliminates the risk of damage to the crystal surface

Ordering Information

PRODUCT NAME	PART NUMBER	DESCRIPTION
Thunderdome	0009-1XX	Includes: Base Optical Unit, Germanium Single Reflection Crystal, Pressure Tower Pressure Device, Integral Purge Tube Assembly, Foam Purge Rings, Manual