



S.A.F.I.R.



FTIR ACCESSORIES

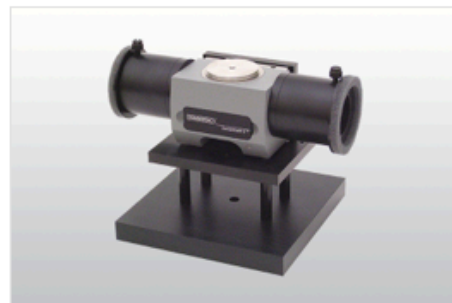
Products

S.A.F.I.R.



Praying Mantis™ Diffuse Reflection Accessory

- The standard for DRIFTS.
- Efficient optics optimize diffuse reflectance collection.
- Easy sampling area access for reaction chambers.



ConcentratIR2™ Multiple Reflection ATR

- High performance low volume cell
- Diamond or Si ATR crystals
- Ambient, flow and heated liquids



DiaMaxATR

- High throughput diamond ATR
- Interchangeable ZnSe, Ge, Si and FIR sampling plates
- Heated adapters solids; flow and static liquid cells



Demountable Liquid Cells

- Pathlengths from 6 μm to 1 mm.
- Leak-free design utilizes standard windows.
- Two ports for static or flow transmission measurements.



Temperature Controlled Demountable Liquid Cells

- Pathlengths from 6 μm to 1 mm
- Temperature range: 0°C to 240°C
- Maximum pressure: 4.5 MPa



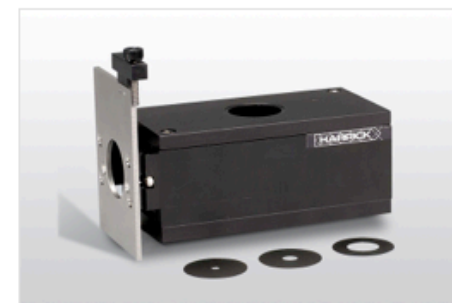
DLC2™ Demountable Liquid Cells

- Variable path from 25 μm to 500 μm .
- PTFE cell body and fittings.
- Luer Lok or flangeless fittings.



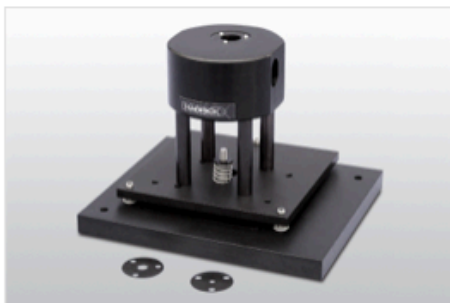
High Pressure Demountable Liquid Cell

- Variable from 6 μm to 5 mm
- Withstands pressures up to 5 MPa
- Heated option for up to 240°C



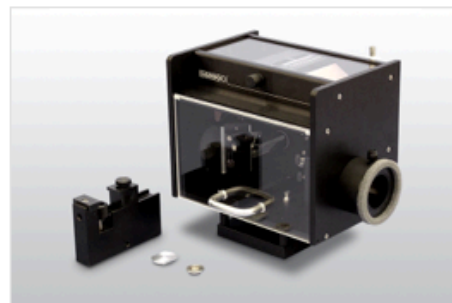
Specular Reflection Accessories

- Fixed horizontal specular reflectance accessories
- Incident angles: 12.5°, 22.5°, 30°, 45°, 60°
- Masks for examining small samples or small areas of large samples



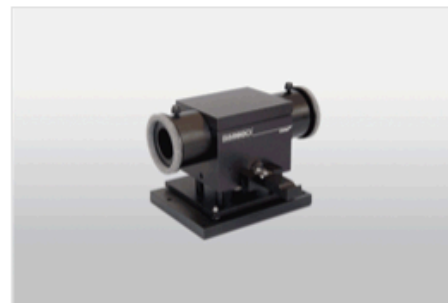
Near-Normal Specular Reflection Accessory

- 8° incident angle
- Convenient horizontal sampling
- Masks accommodate various sample sizes



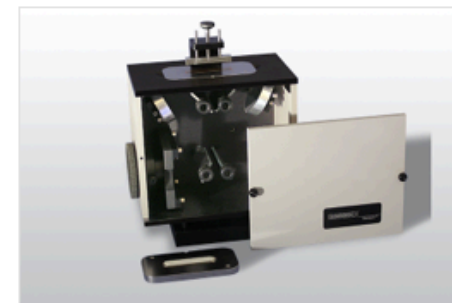
Seagull™ Variable Angle Reflection Accessory

- Continuously variable angle 5° to 85°.
- Specular and in-line diffuse.
- ATR options: ZnSe or Ge Kit, oriented polymer holder.



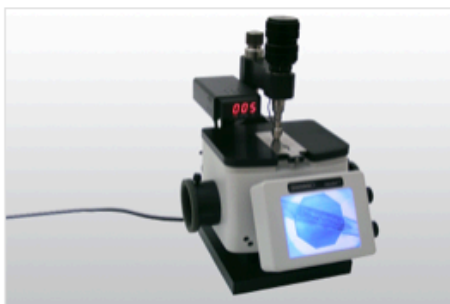
Cricket™ Reflection Accessories

- Low cost DRIFTS and 60° specular reflectance accessory.
- Downward model for powder analysis.
- Upward model for other solids.



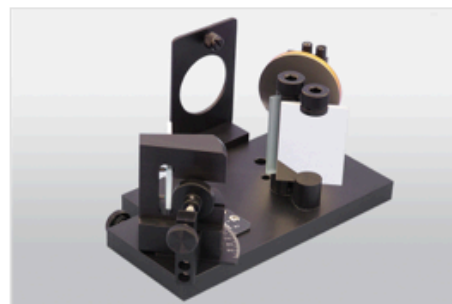
Horizon™ Multiple Reflection ATR Accessories

- Interchangeable solid and liquid samplers.
- Injection, flow and heatable/coolable cells.
- Purge enclosure.



VideoMVP™ Single Reflection ATR Microsampler

- 500 μm diameter sampling area with 45° diamond HATR
- Video imaging system
- Optional force sensor and heated cells.



Variable Angle Reflection Accessory

- Specular reflectance polarizer compatible accessory.
- Angular range: 30° to 85°.
- Options for absolute reflectance and horizontal sampling.



Refractor2™ Grazing Angle Accessory

- Infrared grazing angle accessory
- Convenient horizontal sampling
- Built-in polarizer for high sensitivity



RefractorReactor™ Grazing Angle Accessory

- Grazing angle specular reflectance reaction chamber
- Maximum temperature: 500°C
- Pressure range: 13 mPa to 203 kPa



FiberMate2™ Fiber Optic Coupler

- Links benchtop spectrometers to fiber optic probes.
- Efficiently transmits light to and from probes.
- Use with visible, NIR and MIR fiber optic probes.



Rapid Flow Cell

- High unimpeded liquid flow.
- Sensitivity tailored by changing pathlength.
- Ambient or temperature controlled.



Omni-Diff™ Diffuse Reflection Probe

- Optimizes diffuse reflectance collection.
- SMA connectors accept a variety of fibers.
- Optional viewing microscope offered.



Omni-Spec™ Specular Reflection Probe

- 45° hand-held fiber optic probe.
- SMA connectors accept a variety of fibers.
- Optional video imaging system.



FastIR™ Single Reflection ATR Accessory

- Single reflection 45° ZnSe ATR.
- High throughput.
- Heated liquid cell available.



SplitPea™ ATR Microsamplers

- Microsampler for diamond or Si ATR spectroscopy.
- Calibrated pressure applicator.
- Temperature controlled options.



Raman High Temperature Reaction Chamber

- Reaction chamber for analysis of powders.
- Pressure range: 133 μ Pa to 3.44MPa.
- Heats to 910°C under vacuum.



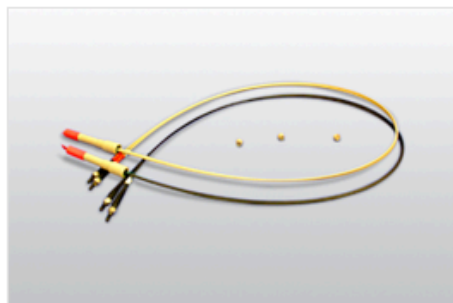
AccessATR™ Single Reflection ATR

- Affordable single reflection ZnSe ATR.
- Easy to use - no alignment required.
- Liquid and solid sampling.



daVinci Arm Reflection Accessory

- 45° diamond ATR, specular or diffuse reflectance
- Samples outside the sample compartment
- Video imaging system



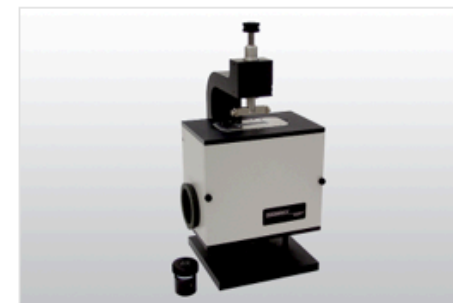
Multiloop-MIR Fiber Optic ATR Probes

- ATR fiber optic liquid probe.
- 6500 cm^{-1} to 600 cm^{-1} .
- Operable to 100°C.



VariGATR™ Grazing Angle Accessory

- Ge HATR for monolayers on metals and semiconductors.
- Continuously variable from 60° to 65°.
- Options include: Wire Grid Polarizer.



WafIR™ ATR Wafer Checker

- Straightforward analysis of coated wafers.
- 45° ATR.
- High performance.



Brewster's Angle Sample Holder

- Mounts films at Brewster's angle to reduce fringes.
- Variable angle for extraction of n , K and thicknesses.
- Polarizer compatible.



Dewar Transmission / Reflection Accessory

- Transmission measurements of solids.
- -196°C to 350°C.
- Gas ports for catalysis and other applications.



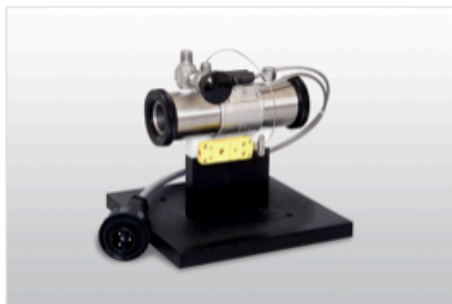
Universal Transmission Holder

- Versatile transmission sample holder.
- Secures thin and flexible samples.
- Accommodates up to 38 mm long samples.



Variable Angle Transmission Accessory

- For analysis of thick samples and coatings thereon
- Analyze samples up to 10 mm thick
- Angular range: 0° to 90°



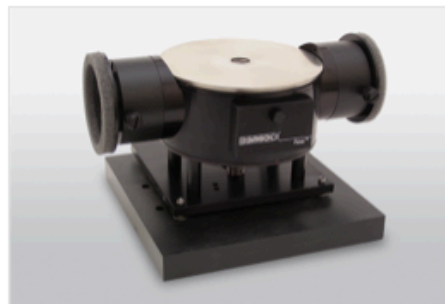
Temperature Controlled Gas Cell

- 10 cm path transmission gas cell.
- Maximum temperature: 260°C.
- Cell volume: 17 ml.



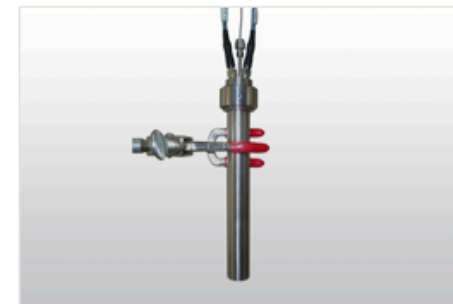
Diaphragm Optical Attenuator

- Continuously variable aperture with scale.
- Iris diameter: 25mm to 0.5mm.
- Mounts in a standard sample slide holder.



Focus™ Grazing Angle Reflection Accessory

- Small sampling area.
- 75° angle of incidence.
- Built-in polarizer.



Diamond Probe

- Single-reflection 45° diamond ATR probe
- 6500 to 600 cm^{-1} with CIR or PIR fibers
- Heatable to 140 °C



RangelR™ Liquid Analyzer

- 45° single reflection horizontal ATR.
- Trough for liquid analysis.
- Maximum temperature: 175°C with ZnSe ATR.



Wire Grid Polarizers

- Wavelength range: 5000 cm^{-1} to 285 cm^{-1}
- Wire grid on a KRS-5 Substrate
- High extinction ratio



Torque Screwdriver

- Compress solids against ATR crystals repeatedly.
- 20 to 100 oz-in (141 mN-m to 706 mN-m).
- 2 oz-in (14 mN-m) increments.
- Free-wheeling



Reflectance Reference

- Calibrated Ge reference.
- Suited for extracting reflectivity or absolute reflectance.
- Suitable for use from 5000 cm^{-1} to 400 cm^{-1} .
- Use with



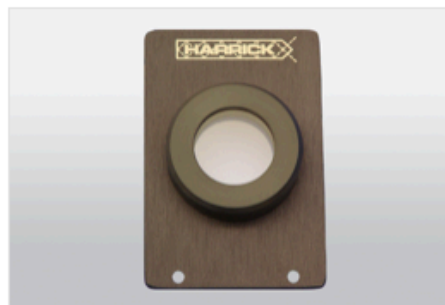
Infrared Beam Finder

- Allows viewing of the infrared beam.
- Glows orange upon exposure to infrared.
- Alignment aid.
- 0.5" x 0.5" phosphorescent area.



Glan Taylor Polarizer™

- Wavelength range: 350 nm to 2300 nm.
- Extinction Ratio: $<5 \times 10^{-5}$.
- Clear Aperture: 12 mm diameter.
- Slide plate mounted in a rotatable holder.



Depolarizer

- Spectral range: 300nm to 2700nm.
- Highly efficient, independent of polarization.
- 22mm diameter clear aperture.
- Length in the beam direction: 10mm.



Glan Thompson Polarizer™

- Wavelength range: 350 nm to 2300 nm.
- Extinction Ratio: $<1 \times 10^{-5}$.
- Clear Aperture: 15 mm diameter.
- Slide plate mounted in a rotatable holder.



High Temperature Cell

- Transmission reaction chamber.
- Heatable to 500°C.
- Sample size: 25mm dia. up to 10mm thick.



Optical Polishing Kit

- Everything needed to improve the surface finish of opticals.
- Convenient for polishing and buffing NaCl, KBr and ZnSe windows.
- Glass plates with polishing pads and brush.



Optical Table Slide Plate Holder

- Optic table mount for demountable liquid cells, etc.
- Holds 2" x 3"x 0.125" slide plates.
- Metric M6 or English 1/4-20 mounting holes.
- Attaches with standard optical



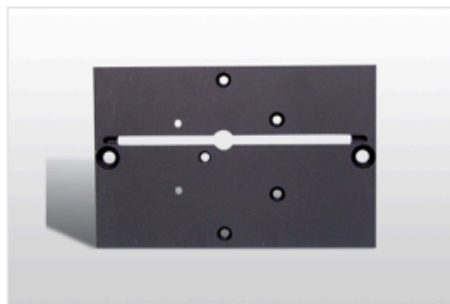
Praying Mantis™ High Temperature Reaction Chambers

- Diffuse reflectance environmental chamber.
- Withstands pressures from high vacuum to 3.44MPa.
- Heatable to 910°C.



Praying Mantis™ Low Temperature Reaction Chambers

- Diffuse reflectance chamber.
- Operates at temperatures from -150°C to 600°C.
- Pressure range: high vacuum to 133 kPa (1 torr).



Rail Mount

- Secures slide plate holders and accessories in the spectrometer.
- Permits positioning to optimize performance.
- Available for most FTIR and UV-Vis spectrometers.



Slide Plate Holder

- Holds standard 2" x 3" x 0.125" slide plates.
- Secures slide plate mounted transmission accessories.
- Use with Harrick's Rail Mount.
- Available for FTIR and UV-Vis



Temperature Controller

- Provides accurate thermal regulation from -200 to 1250°C.
- Dual channel controller for standard or cascade operation.
- Software and USB adapter included for computer control