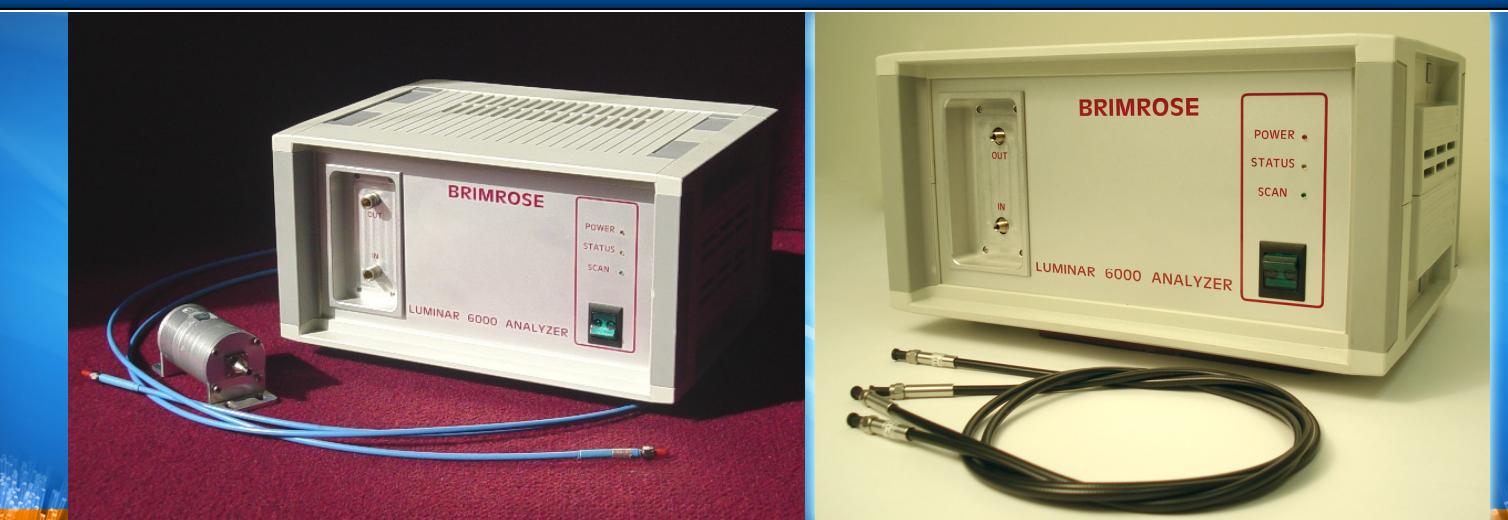


Robust . Reliable . Accurate

# Miniature Laboratory AOTF-NIR Analyzer



! **Luminar 6000 with Single Fiber and Cuvettes**

- Non-destructive and Contact/Non-contact Analytical Testing
- Brimrose Analytical Software - Snap32!
- Full Capability to do Multiple Measurements with Different Types of Probes, Cuvettes, Flow Cells, Gas Cells



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Luminar 6000

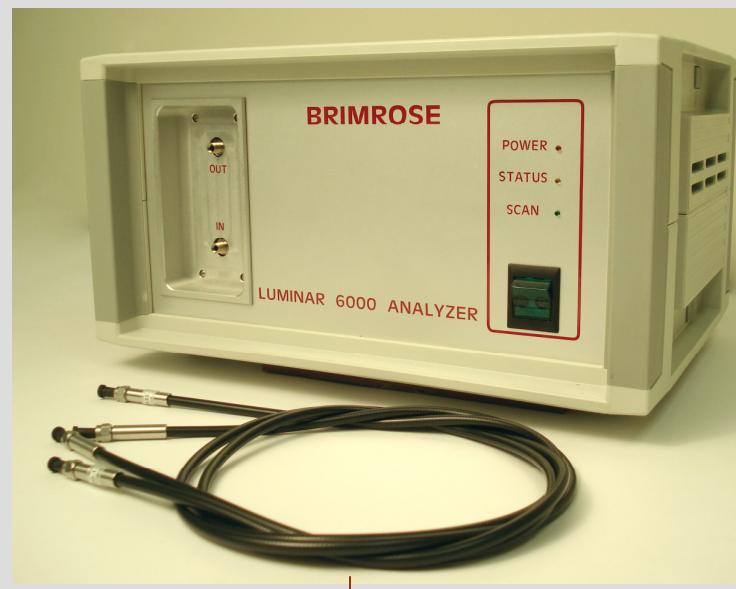
## ■ Rugged Laboratory Analytical Instrument for Multi-component Analysis

The Brimrose Solid-state Luminar 6000 AOTF-NIR Miniature Laboratory Analyzer is a platform developed for conducting non-destructive and contact/non-contact analytical testing. This instrument is an excellent tool for lab measurements of chemical and physical properties. The Luminar 6000 Miniature Analyzer has the full capability to do multiple measurements with different types of probes, cuvettes, flow cells, gas cells on solids, powders, liquids, and gases.

This AOTF-NIR analyzer is an analytical instrument that utilizes Brimrose's high performance AOTF-NIR (Acousto-Optic Tunable Filter-Near Infrared) technology. This spectrometer can deliver rapid, multi-component analysis for a wide variety of applications that include diffuse reflective measurements of powders, pellets, liquids, web based and solid products. Models created using the Luminar 6000 Miniature Analyzer can easily be transferred to a real-time, on-line system. Miniature design makes it more capable of portable solutions.

### ■ Measurement

- Moisture
- Fat/Sugar/Protein
- Active Ingredients
- Coating Weight
- Blend Assay
- Recycled Plastic ID



Luminar 6000 AOTF-NIR Analyzer with Fiber Bundle

### ■ Key Features

- Dual Beam, Pre-aligned Lamp Assembly, InGaAs Detectors
- Fast Scanning Speed - 16,000 wavelengths/sec
- SNAP32! Brimrose Analytical Software with Brimrose MACRO Language
- Miniature Integrated Enclosure

### ■ Real-time Applications

- Laboratory Measurements of Chemical and Physical Properties: powders, polymer pellets/resins, liquids
- Fruit/Grain, Vines
- Raw Materials ID in Receiving and Dispensing, Polymorphism
- Petrochemical: Determination of aromatics, cetane index, density, and viscosity in petroleum product
- Paper and Textile Goods



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## ■ Technical Data Specifications

| Spectrometer Name   |  | Luminar 6000 Miniature Laboratory AOTF-NIR Analyzer                             |
|---|--|---|
| <b>Spectral Range Options</b>   |  | 600-1100 nm, 850-1700 nm, 900-1800 nm, 1100-2300 nm                             |
| <b>Measurement Modes</b>  |  | Diffuse Reflection, Transflectance, Transmission                                |
| <b>Spectral Resolution</b>  |  | 2-10 nm   |
| <b>Wavelength Accuracy</b>  |  | ± 0.5 nm  |
| <b>Wavelength Repeatability</b>   |  | ± 0.01 nm   |
| <b>Wavelength Increment</b>   |  | Software Selectable 1-10 nm   |
| <b>Ambient Light Rejection</b>  |  | > 10 <sup>6</sup>   |
| <b>Signal Digitalization</b>  |  | 16-bit A/D (1 part in 65,536)   |
| <b>Sampling Speed</b>   |  | 16,000 wavelength/sec   |
| <b>Connectors for Fiber Optics</b>  |  | TNC, SMA  |
| <b>Diagnostic</b>   |  | 10 Built-in monitoring sensors  |
| <b>Power Requirements</b>   |  | 12, 24VDC, 90Watts, 110 VAC 60 Hz, 220VAC 50Hz                                  |
| <b>Enclosure Dimensions</b>   |  | 13" X 10" X 7"  |
| <b>Outputs</b>  |  | PC Interface via Ethernet connection<br>(Optional: Wireless Ethernet Interface) |
| <b>Software Package</b>   |  | Windows-based analytical software for data acquisition                          |
| <b>Options:</b>   |  |   |
| <ul style="list-style-type: none"> <li>➤ Input/Output (I/O) Capability</li> <li>➤ Battery Operation</li> <li>➤ Wireless Ethernet Interface</li> </ul> |  |   |



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