

## PTRam Analyzer

Monitor and optimize your process with Metrohm Process Raman Analyzers

#### **HIGHLIGHTS**

- High performance, precise, rugged, and reliable spectrometer
- Long-lasting, rock-solid laser stability for consistent results
- Self-calibrating, self-monitoring to ensure the validity of each measurement for 24/7 real-time monitoring
- Single channel fiber-optically coupled sample probe with user-replaceable shaft, customizable for your measurement conditions





# Self-calibrating Raman system for process development

Inline sensors can be mounted directly in the process and require no sample preparation or reagents. These non-invasive, direct measurements provide «real-time» results. Metrohm Process Analytics' PTRam Analyzer can be installed to measure multiple parameters in a sample and provide instant sample data to the distributed control system (DCS) early in a process when results start to trend.

The PTRam Analyzer is a 19" rack-mountable 785 nm Raman analyzer designed for product and process development in the chemical, petrochemical, and pharmaceutical industries. It is a high performance, precise, rugged, and reliable Raman system featuring self-calibration and automated performance validation to ensure validity of every measurement. This single-sample channel system includes a fiber optic probe with a shaft that can be easily replaced by the user.

Besides, this analyzer operates with **Vision soft-ware** for spectroscopic analysis and process control in the 2060 Human Interface (HI).

#### Vision is designed to:

- Acquire data for routine real-time analysis
- Run self-calibration and system monitoring of the PTRam Analyzer to ensure data validity
- Create identification, qualification, and quantification methods in a uniform graphical user interface
- Store, manage, reprocess, and exchange data
- Perform system tests in compliance with U.S.
  Pharmacopeial Convention (USP) and EP







#### **APPLICATIONS FOR PTRAM ANALYZER:**

- Pharmaceutical API Development: Reaction Chemistry, Yield
- Crystallization and Polymorph Transition Process Monitoring
- Pharmaceutical Formulations Development:
  Blending, Granulations, Drying
- Bioprocessing including Fermentation
- PAT/QbD Applications
- Biologics/Biomedical
- Polymerization
- Polymer Blending
- Extrusion Monitoring
- Catalysis Investigation

### NON-DESTRUCTIVE ANALYSIS

- Long-term stability
- High-throughput optics
- 785nm laser