Advanced Raman Spectroscopy for Precision Multi-Gas Detection

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: CE ISO9001
- Model Number: RS2600
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: International Shipping Package
- Delivery Time: 90-120 working days
- Payment Terms: T/T,Western Union
- Supply Ability: 100 Unit 90-120 days

Product Specification

- Model Name: RS2600 Multi-gas Analyzer
- Laser Excitation Wavelength: 532 ± 0.5nm
- Spectral Coverage: 200 ~ 4200 Cm-1
- Analysis Time: 2 Seconds
- Detection Limit: Ppm Level
- Measurement Time: Real-time
- Highlight: **Raman gas analyzer for real-time detection**, **RS2600 multi-gas analyzer**, **Raman spectroscopy gas detector**

More Images

Product Description

JINSP RS2600 Multi-Gas Analyzer – Advanced Raman Spectroscopy for Precision Detection

The JINSP® RS2600 is a cutting-edge multi-gas analyzer leveraging Raman spectroscopy to deliver simultaneous, real-time analysis of over 500 gas types—excluding noble gases. Ideal for industries like petrochemicals, electronics, and metallurgy, it detects key gases such as CH_4, C_2H_6, F_2, CO, H_2S, and isotopologues (D_2, T_2, etc.) with unmatched versatility.

Key Features:

Multi-component detection: Analyze multiple gases in seconds.
Universal compatibility: Covers flammable, toxic, and rare gases.
Pressure-independent: Accurate quantification regardless of sample pressure fluctuations.
Wide range: Sensitivity from ppm levels up to 100% concentration.
Applications: Natural gas, electronic special gases, fluorine chemicals, and pharmaceutical industries.

Technical Specifications:

Components	N2, H2, O2, CO, CO2, H2S, CmHn, etc.
Analysis time	2 seconds
Measurement uncertainty	≤0.2%
Laser excitation wavelength	532 ± 0.5 nm
Spectral coverage	200 ~ 4200 cm-1
Spectral resolution	≤8 cm-1 at full spectral range
Air circuit interface	6 mm standard tube fitting (3 mm, 1/8", and 1/4" are optional)
Input voltage	100~240 VAC,50~60 Hz
Sample gas temperature	-50 ~ 40 ºC
Sample gas pressure	1.0 MPa
Unit dimensions	485 mm (Width) × 350 mm (Height) × 600 mm (Depth)
Weight	40 kg

Application: 1. Monitoring of F2, N2, HF and other components in the fluorination process.

Monitoring of F_2, N_2, HF and other components in the fluorination process

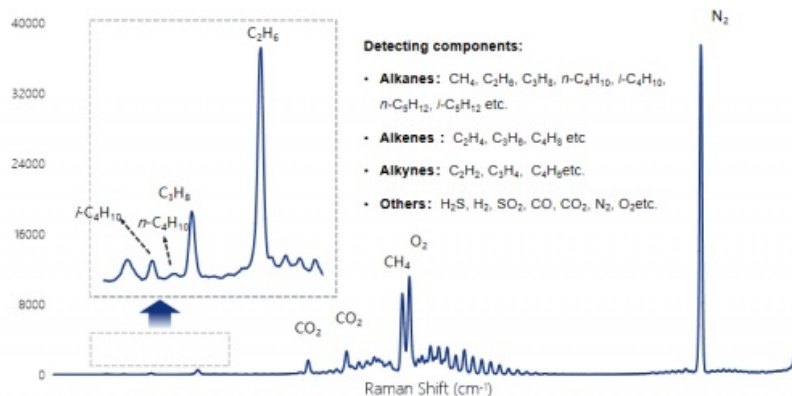| component	content
F_2	2%
N_2	79%
HF	0.2%
CO_2	3%
CO	0.0%
O_2	3%
CF_4	10%
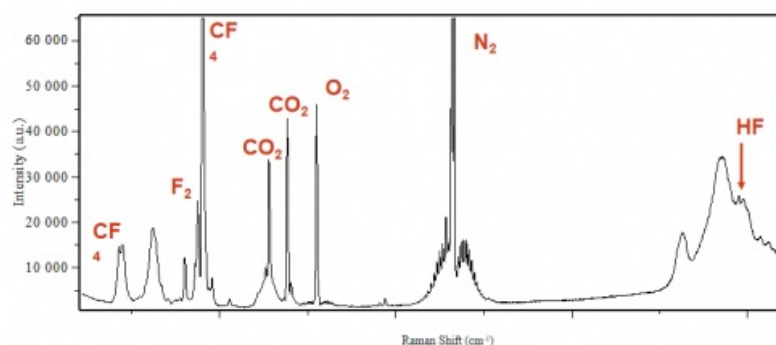
Application: 2. Quantitative analysis of different Elements in Petrochemical Natural Gas
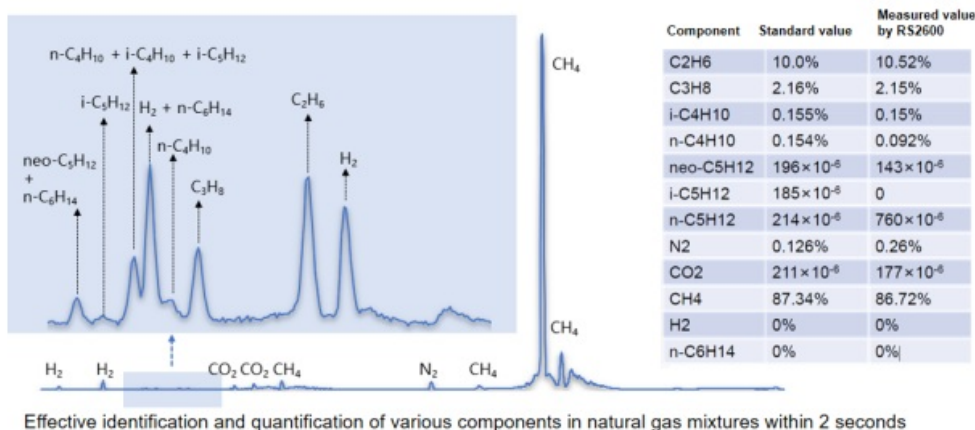
Effective identification and quantification of various components in natural gas mixtures within 2 seconds, such as alkanes, alkenes, alkynes, etc.

Quantitative analysis of different Elements in Petrochemical Natural Gas

component	content
N_2	26.66%
O_2	6.36%
CO_2	1.13%
CH_4	65.26%
C_2H_6	0.54%
C_3H_8	170 ppm
$n\text{-}C_4H_{10}$	160 ppm
$i\text{-}C_4H_{10}$	160 ppm

Detecting components:

- **Alkanes:** CH_4, C_2H_6, C_3H_8, $n\text{-}C_4H_{10}$, $i\text{-}C_4H_{10}$, $n\text{-}C_5H_{12}$, $i\text{-}C_5H_{12}$ etc.
- **Alkenes:** C_2H_4, C_3H_6, C_4H_8 etc
- **Alkynes:** C_2H_2, C_3H_4, C_4H_6 etc.
- **Others:** H_2S, H_2, SO_2, CO, CO_2, N_2, O_2 etc.

Quantitative analysis of different Elements in Petrochemical Natural Gas

Component	Standard value	Measured value by RS2600
C2H6	10.0%	10.52%
C3H8	2.16%	2.15%
i-C4H10	0.155%	0.15%
n-C4H10	0.154%	0.092%
neo-C5H12	196×10^{-6}	143×10^{-6}
i-C5H12	185×10^{-6}	0
n-C5H12	214×10^{-6}	760×10^{-6}
N2	0.126%	0.26%
CO2	211×10^{-6}	177×10^{-6}
CH4	87.34%	86.72%
H2	0%	0%
n-C6H14	0%	0%

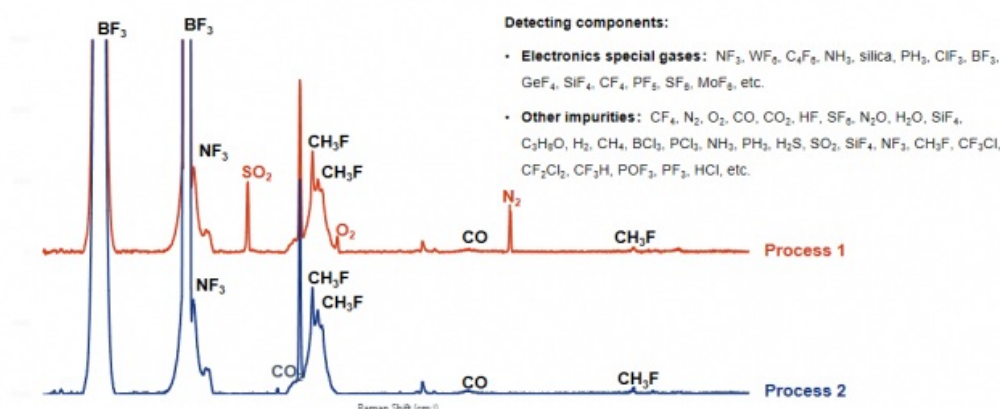Effective identification and quantification of various components in natural gas mixtures within 2 seconds

Application: 3. Detection of components in reaction and emitted gases of fluorine materials, such as reactant gases, common gases, fluoinated gases.

Detection of components in reaction and emitted gases of fluorine materials

Detecting components:

- **Reactant gases:** PF_5, PF_3, PCl_3, POF_3, HF, HCl, Cl_2, etc.
- **Common gases:** CO_2, O_2, N_2, H_2, etc.
- **Fluorinated gases:** CH_3CH_2F, CH_3F, etc.
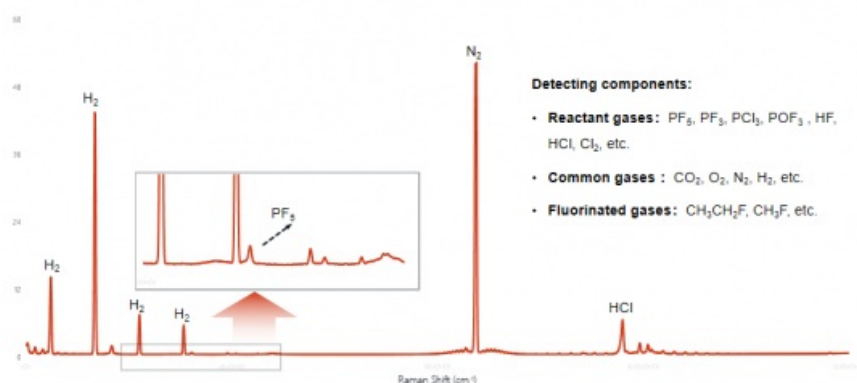
Application: 4. Detection of impurity gases and electronic special gases.

Detection of Impurity Gases in Electronic Special Gases

Detecting components:

- **Electronics special gases:** NF_3, WF_6, C_4F_6, NH_3, silica, PH_3, ClF_3, BF_3, GeF_4, SiF_4, CF_4, PF_5, SF_6, MoF_6, etc.
- **Other impurities:** CF_4, N_2, O_2, CO, CO_2, HF, SF_6, N_2O, H_2O, SiF_4, C_3H_8O, H_2, CH_4, BCl_3, PCl_3, NH_3, PH_3, H_2S, SO_2, SiF_4, NF_3, CH_3F, CF_3Cl, CF_2Cl_2, CF_3H, POF_3, PF_3, HCl, etc.

Gas Analyzer Features:

Unlock Precise Multi-Component Analysis!
Our advanced solution harnesses quantitative multi-standard curve modeling integrated with chemometric methods to decipher precise correlations between spectral signals and diverse component concentrations. This comprehensive approach significantly elevates analytical accuracy while enabling simultaneous analysis of multiple chemical components—delivering a powerful, integrated solution for quantitative assessment of complex samples.

Defy Environmental Variables, Deliver Consistent Results!
Even amid sample gas pressure fluctuations or testing condition variations, this quantitative method maintains uncompromised accuracy. Engineered with exceptional stability and robustness, it guarantees consistent, reliable results in any environment. This provides trusted analytical assurance for both scientific research and industrial applications.
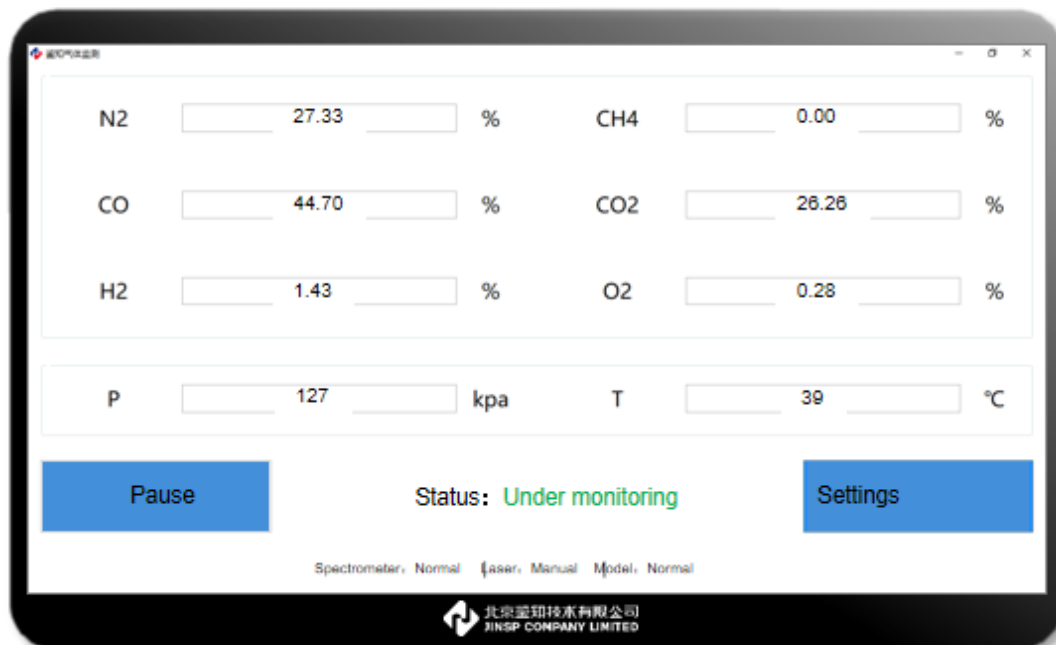
Company Introduction:

JINSP Company Limited, abbreviated as "JINSP", is a professional supplier with over 17 years of experience in spectral detection technology products, including Raman, FT-IR, LIBS technologies, etc. After 17 years of technology accumulation, the company's core key technologies have reached the international leading position at the level, and the cumulative number of patent applications exceeded 200.

JINSP offers over twenty spectroscopic products across various fields, including pharmaceutical and chemical industries, public security, and customs. Products are available nationwide and are exported to over 30 countries, with cumulative sales exceeding 3,000 units.

Exhibition

Certifications

FAQ:
Q: This is the first time I use, is it easy to operate?

A: We will send you manual and guide vedio in English,it can teach you how to operate the spectrometer. Also our technicians will offer professional tecnical opearation meetings.
Q: Can you offer a operation training?
A: Your technicians can come to our factory for a training. Jinsp technical engineers can go to your place for local support. (installation, training, debugging, maintenance)
Q: How to receive a best price in the shortest time?
A: When you send us an inquiry, please kindly offer details with wavelength, detector, effective pixels, focal length and so on. We will send you quotation with details soon to your email.
Q: Do you have MOQ requirement of each order?
A: No, we support order for even 1pc order.
Q: What is the product warranty?
A: All product has 1 year warranty, support extending warranty period with extra cost. Please contact with our sales person.

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