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Handheld Raman Spectrometer
-----Finder Edge 1064nm

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1064nm Handheld Raman

Part 1

1064nm Handheld Raman Spectrometer

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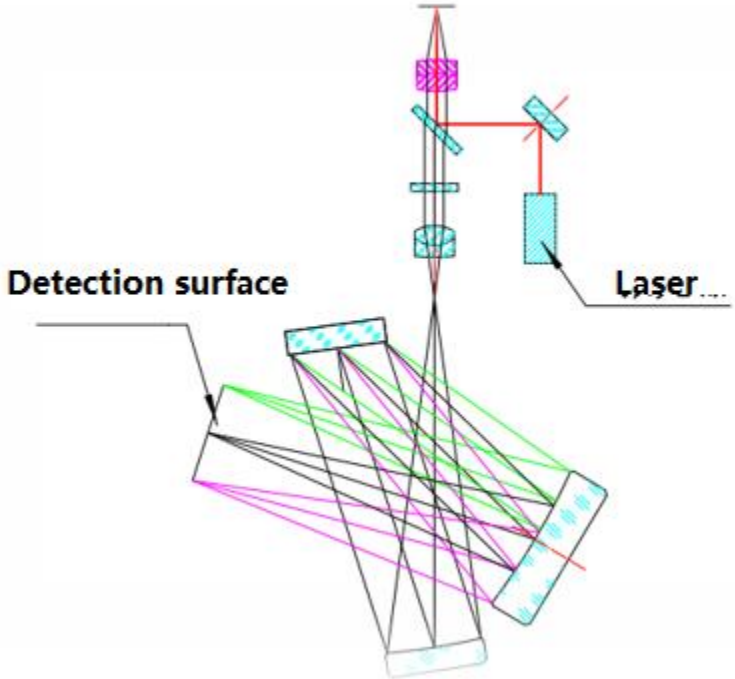
Raman Technology

Optical design: spatial coupling optical path



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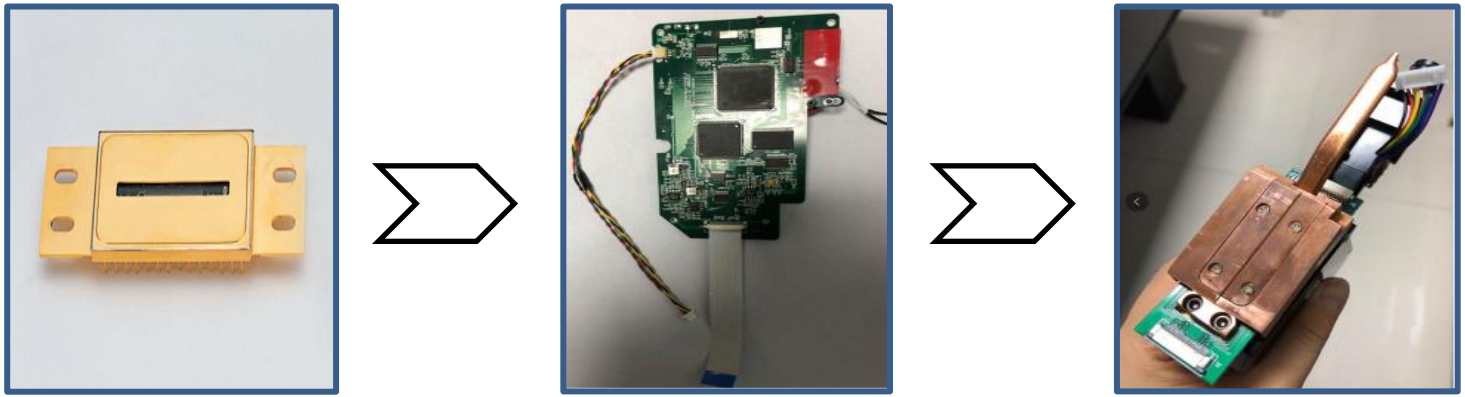
Detector：InGaAs（cooling: -20℃）



Circuit stability control

Thermal stability control

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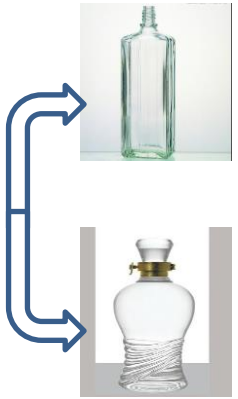
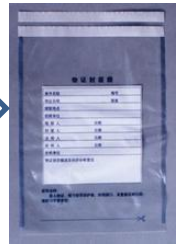
Universal holders for sample





Different package thickness requirement

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Laser safety： Add laser safety valve

When the test is not prepared and the test head is not installed, if the test button is touched by mistake, the laser will not be emitted.

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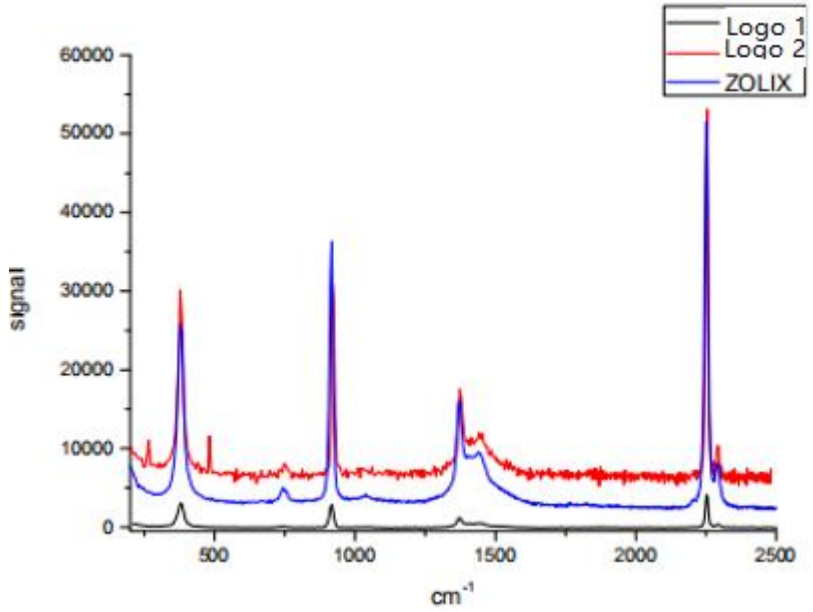
High Signal Intensity(I)



Test condition：
Sample： Acetonitrile
Power:300mW
Time:3s

Con. Z(I)=Logo 1×11=Logo 2×1.5

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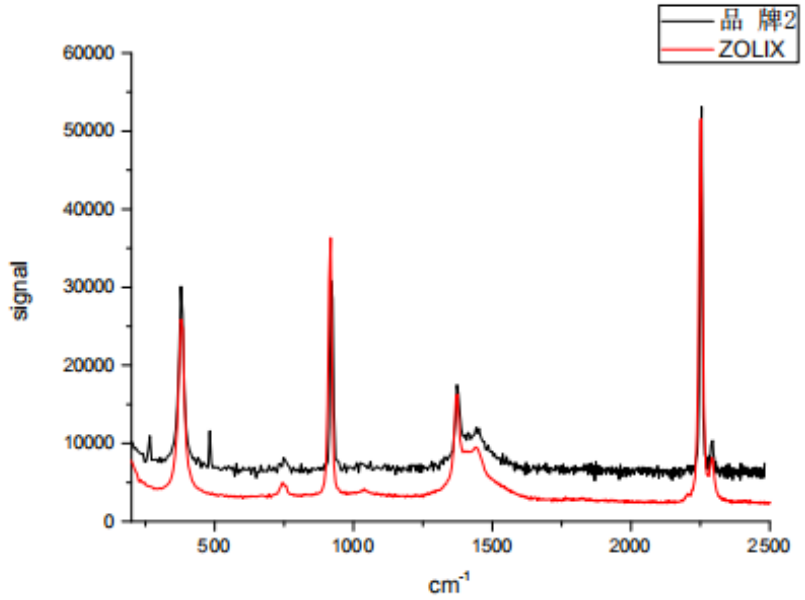
Low Signal Noise(N)



Test condition：
Sample： Acetonitrile
Power:300mW
Time:3s

Con.：20Z(N)=Logo 2（N）

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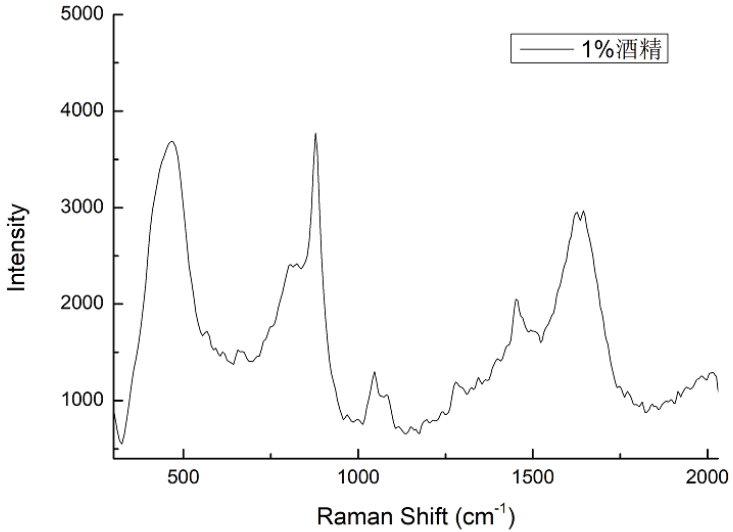
Low detection limit (1% alcohol)



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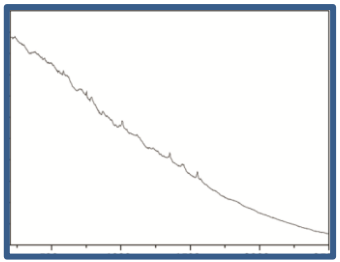
Why do we choose 1064nm?

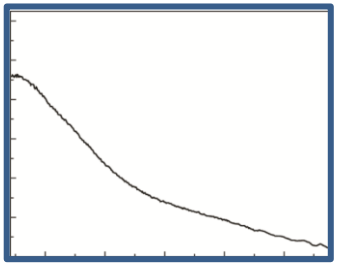
Part 3

Why do we choose 1064nm ?

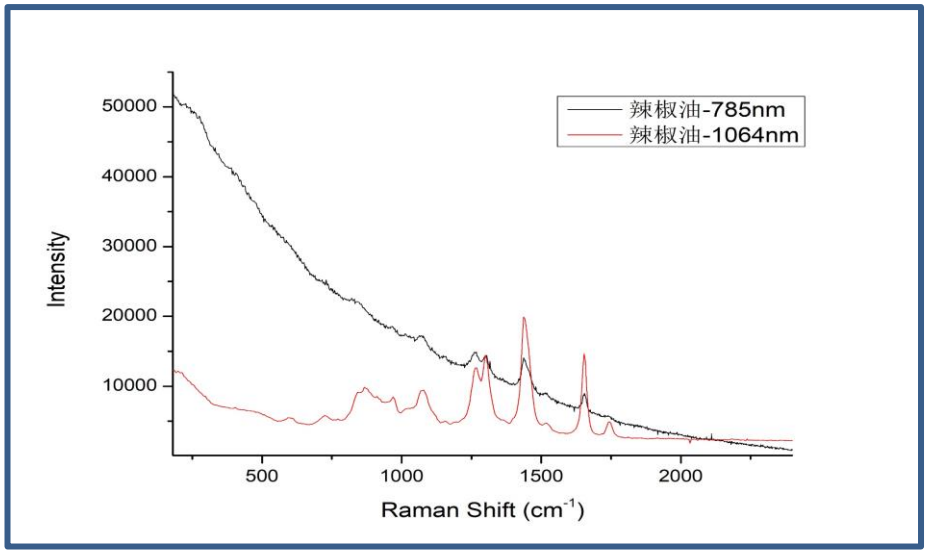
Avoid fluorescence interference of the test sample (substance itself, impurities), Solve the fluorescence challenges of traditional 785nm Raman



Sample 1: fluorescence interference , weak signal



Sample 2: All covered by fluorescence



Sample: Chili Oil

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Part 3

Why do we choose 1064nm ?

Avoid packaging material fluorescence interference

Colored plastic bottles

Colored glass bottle

Colored film packaging

The above 785nm band has fluorescence interference, 1064nm test has no fluorescence interference

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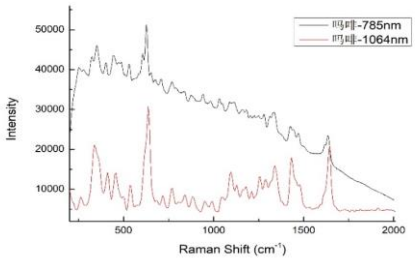
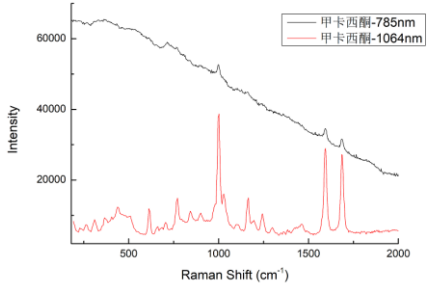
Application Advantage ?

Law enforcement agencies

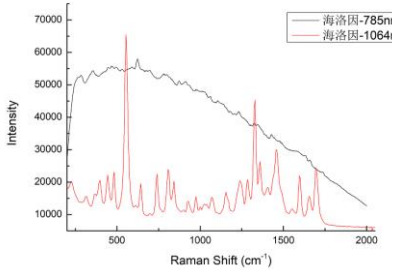
Customs department

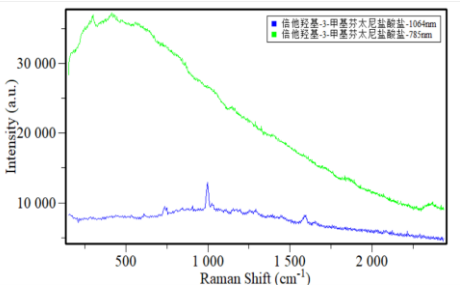


Public security department



emergency management





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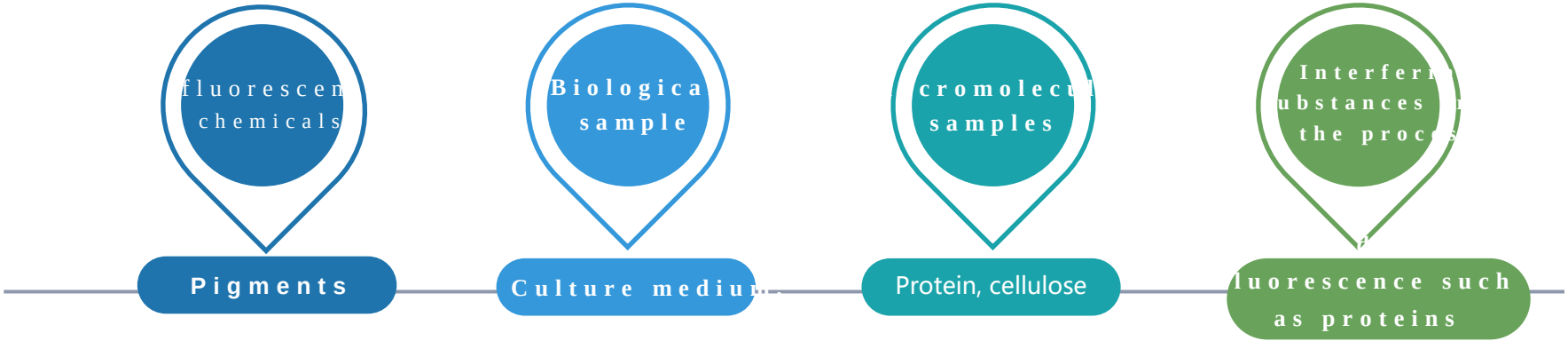
Part 4 Application

Application of test samples in pharmaceutical production



Ponceau, Carmine, etc.

Pepsin, cell culture medium, etc.

Human albumin, microcrystalline cellulose, croscarmellose sodium

Threonine introduces fluorescent signal of protein impurities in production

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12:05
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Specification

Laser Wavelength	1064nm
Laser Output Power	≤500mW
Spectral Range	200-2500cm-1
Spectral Resolution	＜14cm-1@1262.339nm
Connectivity	Bluetooth and Wifi
Certification	CE and ROHS
Collection	Optics 10mm and 15mm focus lens
Laser Class	Class 3B
Weight	1.2Kg
Size	19.8*9.9*5.2cm

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Thank you

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