



LuMAT-SERS is providing whole-process detection technology for multiple applications based on patented technologies from Hong Kong Branch of National Precious Metals Material Engineering Research Center (NPMM), CityU Hong Kong

- Nano-engraved needle-based SERS sensors are 10 to 100 times more sensitive than commercial sensors.
- Our insertion method and needle-based sensors can finish the detection 6 times faster.
- Handheld Raman system provide convenient on-site detection solution.

Partnership with



Hong Kong Branch of National Precious Metals Material Engineering Research Center



Specification of device		With LUMAT-1 Sensor	Limited of detection (LOD)
Laser Wavelength	785nm	Examples of Pesticides	
Spectral Range	200-2000cm ⁻¹	Thiram	0.1 ug/mL
Spectral Resolution	12cm ⁻¹	Phorate	0.1 ug/mL
Connectivity	Bluetooth and WiFi	Aldicarb	0.1 ug/mL
Certification	CE, ROHS	Terbufos	0.5 ug/mL
Collection Optics	10/15mm focus lens	Carbofuran	0.1 ug/mL
Laser Class	Class 3B	Examples of Veterinary Drugs	
Weight	0.48 kg	Nitroxylin	5ug/mL
Dimensions	180*88.5*33mm	Diclazuril	10ug/mL

Contact

LuMAT-SERS

We focus on detection technology

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Our product

10 times reusable

Based on our published result

10 to 100 times more sensitive

Compared with commercial sensor

6 times faster

Compared with traditional method

Detection of antibiotics residual in meat products, food spoilage



Personal care products



Identification of skin care products authenticity, illegal additives

Drug/ dangerous explosive analysis



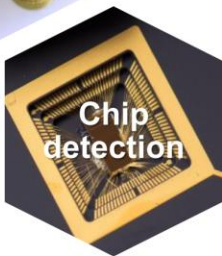
Application cases

Infectious diseases detection



Detection of infectious diseases

Multi- level detection of electronic materials



CVD early detection



Early detection cardiovascular diseases

Cooperating with **CHE**
On CVD early detection



Our Awards



International invention exhibition Geneva Gold medal

Asia International Innovation Invention Exhibition Gold medal

National Invention Exhibition Silver Award

China (Shanghai) International Invention and Innovation Exhibition Gold Award

China Hi-Tech Fair Outstanding Product Award



Our core innovation

Our patented* needle-based sensors could offer rapid, insertion detection solution for different application, providing 10-100 times higher sensitivity and 50% lower cost compared with commercial sensors.

*(1) US 11,053,605 B2, 20210706

(2) China patent no. ZL202010721579.6