

# Cylindrical SERS Substrates

## Specification ( Category number: cSERS<sup>®</sup>-Ag-1 )

|                                        |                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------|
| Dimension of cSERS Substrate(two type) | 1. 5mm*25mm*1mm, reaction area=5mm*5mm<br>2. 2mm(I.D.) , Height = 9 mm (roughly) |
| Required Sample Volume                 | < 5 $\mu$ L                                                                      |
| Recommended Storage Temperature        | Less than 20 $^{\circ}$ C                                                        |
| Enhanced Metal                         | Nano Silver                                                                      |
| Application Laser                      | 532 nm, 633 nm, 785 nm, and others                                               |

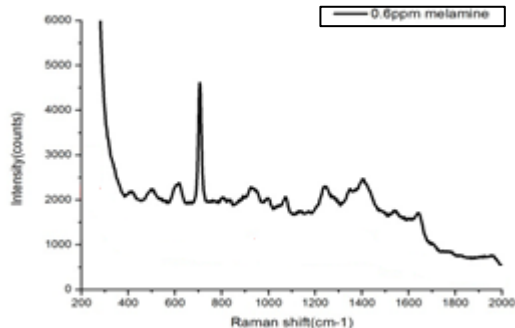
## International papers:

- Diagnosis of bacterial pathogens in the dialysate of peritoneal dialysis patients with peritonitis using surface-enhanced Raman spectroscopy (*Clinica Chimica Acta*)
- Sensitive Cylindrical SERS Substrate Array for Rapid Microanalysis of Nucleobases (*Analytical Chemistry*)
- Atmospheric Pressure Plasma Jet in Organic Solution: Spectra, Degradation Effects of Solution Flow Rate and Initial pH Value (*Plasma Science and Tecknology*)
- Rapid detection of melamine in milk liquid and powder by surface-enhanced Raman scattering substrate array (*Food Control*)
- A Rapid and Sensitive Early Diagnosis of Influenza Virus Subtype via Surface Enhanced Raman Scattering (*Biosensors & Bioelectronics*)
- 3-min Rapid Test Urine Patient of Bacteria Infection by Raman (*molecules*)
- Construction of Raman spectroscopic fingerprints for the detection of Fusarium wilt of banana in Taiwan(*PLOS ONE*)

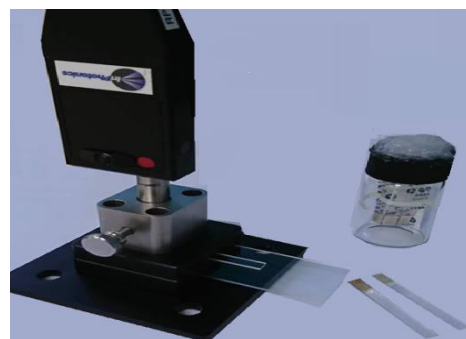
\* Sales must be authorized by Labguide .



雙面皆可測量 Double side can be measure  
Can use for ocean Raman SERS holder



Each bottle with QC test ,  
785 nm, 1s, 20 mW, 0.6 ppm melamine



**Ocean Insight**  
Unlock the Unknown



雲陽科技有限公司  
Labguide Co., Ltd.



雲陽科技有限公司 網址: <http://www.labguide.com.tw> 電話: 02-2940-6162

云洋光电 ( 深圳 ) 有限公司 網址: [www.labguide.com.cn](http://www.labguide.com.cn) 电话: 0755-27750787

# Nano Ag SERS Application Summary

## 拉曼奈米銀增強 SERS 應用目錄總表

2020/4/8

### Cooking Oil Detection 食用油檢測

|   |                                                                                                             |                                                                                                                                                                             |
|---|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Detection of olive oil, Sunflower Oil, Canola Oil, sesame oil, and Camellia Oil<br>橄欖油、葵花油、芥花油、麻油、苦茶油等食用油檢測 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=253">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=253</a> |
| 2 | Detection of Refining Gutter oil and Cooking oil after cooking at different temperature<br>高溫炸油和精煉地溝油檢測     | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=252">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=252</a> |

### Human protein Detection 人類蛋白質檢測

|   |                                                          |                                                                                                                                                                             |
|---|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Dementia (Alzheimer's) Raman Detection<br>失智症(阿茲海默症)拉曼檢測 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=225">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=225</a> |
|---|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Animal,Plant Virus Detection 動物,植物病毒檢測

|   |                                                                                                                                      |                                                                                                                                                                                                       |
|---|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Detection of Newcastle Disease and Avian Flu Virus<br>GM 新城疫、禽流感病毒快速鑑定                                                               | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=249">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=249</a>                           |
| 2 | Detection of Avian Flu Type H3N2, H5N2, H6N1, H6N8, and H7N9,H3N2, H5N2, H6N1, H6N8, H7N9<br>禽流感病毒傳人快速鑑定                             | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=248">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=248</a>                           |
| 3 | Detection of Infectious Bursal Disease, IBD<br>IBD 傳染性華氏囊病快速鑑定(雞腎病)                                                                  | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=247">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=247</a>                           |
| 4 | 屏科大林盈宏老師用我司SERS發表 香蕉黃葉病論文<br><a href="https://doi.org/10.1371/journal.pone.0230330">https://doi.org/10.1371/journal.pone.0230330</a> | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;path=134&amp;product_id=563">https://www.labguide.com.tw/index.php?route=product/product&amp;path=134&amp;product_id=563</a> |

### Blood Bacterial Detection 血液細菌檢測

|   |                                                                      |                                                                                                                                                                             |
|---|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Detection of E. Coli infected Human blood samples.<br>人類血液感染大腸桿菌快速鑑定 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=246">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=246</a> |
|---|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Test paper fast screening method & Raman indicator 拉曼指示劑(NC膜)& 試紙(PVDF)快篩法

|   |                                                         |                                                                                                                                                                             |
|---|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | SERS in Immuno Electrophoresis Chromatography<br>拉曼指示劑法 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=231">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=231</a> |
| 2 | NC膜拉曼指示劑法                                               | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=230">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=230</a> |

### Peritoneal dialysis,Urine Bacterial Detection 洗腎,泌尿道炎細菌檢測

|   |                                                                      |                                                                                                                                                                             |
|---|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | CCA International Publication<br>CCA國際論文                             | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=329">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=329</a> |
| 2 | MDPI International Publication<br>MDPI國際論文                           | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=315">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=315</a> |
| 3 | Detection of MRSA and MSSA<br>MRSA(抗藥性金黃色葡萄球菌)與MSSA(非抗藥性金黃色葡萄球菌)落點分析 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=319">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=319</a> |
| 4 | 5 minutes Rapid Detection of Bacteria<br>細菌5分鐘快速鑑定 與中國醫合作泌尿道發炎118位病人 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=324">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=324</a> |
| 5 | Detection of Aspergillus flavus and Aflatoxin<br>黃麴黴菌快速鑑定            | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=245">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=245</a> |
| 6 | Detection of E. Coli samples from food court.<br>食品街攤商 腹瀉大腸桿菌檢測      | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=243">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=243</a> |
| 7 | 細菌快篩 與中國醫腎臟科臨床測試45位病人<br>(腹膜透析發炎) 9種細菌(含抗藥性菌種)                       | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=328">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=328</a> |
| 8 | 細菌快篩 與中國醫合作泌尿道發炎118位病人<br>12種菌/10種抗藥性菌種(超級細菌)                        | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=324">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=324</a> |

### Drinking water Bacterial Detection 飲用水中細菌檢測

|   |                                                       |                                                                                                                                                                             |
|---|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 5 min Detection of E.coli on Site<br>總菌數和大腸桿菌5分鐘 - 快篩 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=242">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=242</a> |
|---|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



雲陽科技有限公司 網址: <http://www.labguide.com.tw> 電話: 02-2940-6162

云洋光电 ( 深圳 ) 有限公司 網址: [www.labguide.com.cn](http://www.labguide.com.cn) 电话: 0755-27750787

# Nano Ag SERS Raman Application Summary

## 拉曼奈米銀增強 SERS 應用目錄總表 2020/4/8

### Pesticide Residue Testing on Food & Vegetables 食品蔬菜農藥殘留 (210種農藥圖庫)

中華民國 106 年 12 月 28 日環署授檢字第 1060011559 號公告(用拉曼定性)

|   |                                                                            |                                                                                                                                                                             |
|---|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 5min Raman Rapid Detection of Pesticide Residue<br>農藥殘留 5分鐘定性定量 210種以上農藥圖庫 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=228">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=228</a> |
| 2 | Chlorpyrifos Residue on Vegetables<br>蔬果農藥殘留 陶斯松5分鐘定性、定量                   | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=237">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=237</a> |
| 3 | Chlorpyrifos Residue in Fruit Juice<br>果汁殘留陶斯松                             | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=239">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=239</a> |
| 4 | 5 min Raman Rapid Detection of Penconazole<br>農藥殘留 戊菌唑 5分鐘定性、定量            | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=234">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=234</a> |
| 5 | 5 min Raman Rapid Detection of Thiram<br>農藥殘留福美雙五分鐘定性、定量                   | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=232">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=232</a> |
| 6 | 5 min Raman Rapid Detection of Zineb<br>農藥殘留 鋅乃浦五分鐘定性、定量                   | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=233">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=233</a> |

### Additives Food (illegal) 食品非法添加

|   |                                                                                                                                    |                                                                                                                                                                             |
|---|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Quick Detection of Low Concentration of Malachite green (1ppb)<br>孔雀石綠快篩 (1ppb)                                                    | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=259">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=259</a> |
| 2 | Quick detection of aflatoxin, Fusarium moniliforme, and Deoxynivalenol in Corn Flour, and Flour<br>玉米粉、麵粉之黃麴毒素、伏馬鐮孢毒素及嘔吐毒素黴菌毒素快速鑑定 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=250">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=250</a> |
| 3 | Quick Detection of Trichloromethane in Bottled Soft Drinks.<br>百事可樂飲料殘留三氯甲烷5分鐘快篩                                                   | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=260">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=260</a> |
| 4 | Quick detection of Natural Pigment and Edible Pigment in Soft Drinks from Beverage Shop.<br>飲料店天然與食用色素快篩                           | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=257">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=257</a> |
| 5 | Detection of ilegal Additive of Melamine in Milk<br>牛奶添加三聚氰胺                                                                       | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=261">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=261</a> |
| 6 | Qualitative Analysis of Industrial Solution<br>工業生產用溶液定性檢測                                                                         | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=256">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=256</a> |
| 7 | Detection of Pork and Chicken meat<br>豬肉、雞肉與組合肉檢測                                                                                  | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=262">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=262</a> |
| 8 | Raman Rapid Detection of<br>Liquor and Restructured Meat Products<br>高粱酒 組合肉 非法添加 5分鐘快篩                                            | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=263">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=263</a> |



# Nano Ag SERS Application Summary

## 拉曼奈米銀增強 SERS 應用目錄總表 2020/4/8

| Drug abuse 尿中毒品                                 |                                                                                                                                                                                             |                                                                                                                                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                                               | Abuse of Emerging Club Drugs in Hair sample, including Mephedrone、MDPV、4-Methylephedrine、HMPV、Methylone、Amphetamine, Meth-、Methylone、Ketamine、Codeine、and Norketamine.<br>毛髮中的新興毒品拉曼譜圖與落點分析 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=266">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=266</a>                           |
| 2                                               | Abuse of Emerging Club Drugs in Urine sample, including Mephedrone、MDPV、4-Methylephedrine、HMPV、Methylone、and Ketamine.<br>尿液中的新興毒品拉曼譜圖與落點分析                                                 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=265">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=265</a>                           |
| Environmental Pollutant 環保類                     |                                                                                                                                                                                             |                                                                                                                                                                                                       |
| 1                                               | Detection of environmental Soil Pollutant<br>環境汙泥 有機物 快篩                                                                                                                                    | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=267">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=267</a>                           |
| 2                                               | Rhodamine 6G Concentration Test<br>羅丹明6G測試                                                                                                                                                  | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=255">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=255</a>                           |
| 3                                               | Qualitative Analysis of Plastic Particle Raman Spectroscopy<br>塑膠微粒拉曼光譜定性分析                                                                                                                 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=227">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=227</a>                           |
| 4                                               | Chlorine dioxide & residual chlorine analyzer<br>二氧化氯&餘氯分析儀                                                                                                                                 | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=331">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=331</a>                           |
| Raw Material From Pharmaceutical company 藥廠原料檢測 |                                                                                                                                                                                             |                                                                                                                                                                                                       |
| 1                                               | Detection of Dexamethasone、Betamethasone-17,21-dipropionate、Betamethasone 17-Valerate、Clobetasolpropionate、Gentamicin from a pharmaceutical company.<br>原料藥品 快篩                             | <a href="http://www.labguide.com.tw/index.php?do=product&amp;id=567">http://www.labguide.com.tw/index.php?do=product&amp;id=567</a>                                                                   |
| 2                                               | Detection of NaCl of the raw material of a pharmaceutical company<br>藥廠原料NaCl鑑別                                                                                                             | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=264">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=264</a>                           |
| Material Detection 顯微拉曼材料檢測                     |                                                                                                                                                                                             |                                                                                                                                                                                                       |
| 1                                               | Detection of Graphene<br>石墨烯檢測                                                                                                                                                              | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=564">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=564</a>                           |
| 2                                               | Detection of Hydrogen peroxide<br>雙氧水檢測                                                                                                                                                     | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=256">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=256</a>                           |
| Nano Ag Technology 奈米銀技術平臺                      |                                                                                                                                                                                             |                                                                                                                                                                                                       |
| 1                                               | Raman SERS Substrates (中興大學 技轉)                                                                                                                                                             | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=269">https://www.labguide.com.tw/index.php?route=product/product&amp;product_id=269</a>                           |
| 2                                               | Micro Raman Spectroscopy (顯微拉曼)                                                                                                                                                             | <a href="https://www.labguide.com.tw/index.php?route=product/product&amp;path=140&amp;product_id=216">https://www.labguide.com.tw/index.php?route=product/product&amp;path=140&amp;product_id=216</a> |

