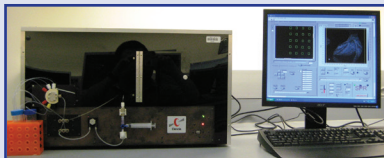


Ciencia, Inc. - FluorSPR



GENERAL DESCRIPTION:

Ciencia's FluorSPR is a dual-mode microarray instrument platform combining a surface plasmon resonance (SPR) analyzer with a surface plasmon coupled emission (SPCE) mode. In its SPR mode it provides capabilities equal to or superior to competing SPR instruments, offering highly multiplexed measurements of high molecular weight analytes in real time. The SPCE mode produces highly directional fluorescence enabling detection in the femtomolar range. The dual-mode instrument is specifically designed to chemically capture (using antibodies, aptamers) and quantify the pattern of cytokines secreted.



TECHNICAL DESCRIPTION:

The instrument combines Grating-coupled Surface Plasmon Resonance and Surface Plasmon Coupled Emission functionality into one instrument. Detection of all analytes present in a single sample occurs simultaneously. The specificity depends on antibody or aptamer selection and binding. Detection depends on the mass of analyte captured or an enhanced fluorescence signal.

CONTACT INFORMATION

Ciencia, Inc.
 111 Roberts Street, Suite K
 East Hartford, CT 06108
 POC: Arturo O. Pilar, President
 860-528-9737
 apilar@ciencia.com

COST

- \$80,000/system
- \$150/analysis

Tier Selection

Final tier assignment is based on overall product score.

- Top Tier
- ◐ Second Tier
- Third Tier
- ◑ Fourth Tier
- Bottom Tier

RANKINGS

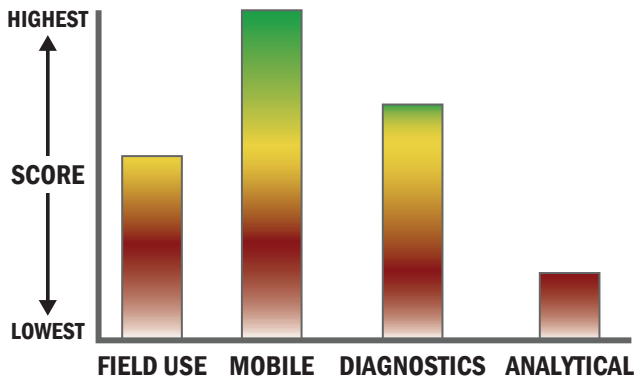
	Biological	Chemical	Radiological
FIELD USE System			N/A
MOBILE Laboratory			N/A
DIAGNOSTIC Laboratory			N/A
ANALYTICAL Laboratory			N/A

Survey Source

Vendor Supplied Information

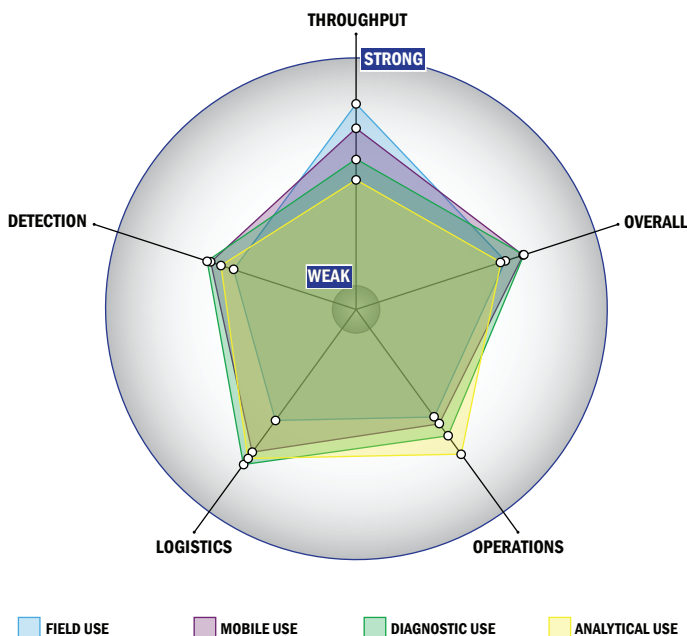
Scoring Analysis

System scores are compared across the four scenarios and ranked from highest to lowest.



Impact Chart

The Impact Chart is a spider graph representing specific categories and designed to give the reader a visual depiction of how a particular system is expected to operate across the four different scenarios. The score for each of the seven categories is presented as the percentage of the total possible score. Higher category scores extend the spokes of a graphic toward the outer edge of the chart. The area graphed for each of the four scenarios relates to how well the system performed in that scenario. Graphics for each of the four scenarios are super-imposed for ease of comparison.



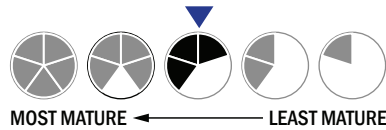
Evaluation Criteria

Throughput:

- Between 30 and 60 minutes for detection
- 1 sample, >10 tests/sample per run
- Less than 32 samples every 2 hours
- The system or device is currently semi-automated
- Device or system is intended for multiple detection assays
- 0-1 solutions, buffer, eluents, and/or reagents
- 1 component
- Less than 5 minutes is required for set-up
- Automatic detection

Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a carry-on luggage suitcase
- Between 5 and 25 kg
- Wired connections are available
- System or device has 110V electrical requirement



Operations:

- Can be used from 4 °C to 41 °C
- Components must be stored at 4 °C
- Between 6 months and 1 year shelf life
- 5-10 years expected life
- Results can be viewed in real-time
- The system is not capable of autonomy
- The system software is closed and not available for modification
- The system hardware is closed and not available for modification

Detection:

- Possible the system could receive 510K clearance, no current efforts at this time
- Possible the system could receive FDA approval, no current efforts at this time
- Less than 100 µL
- Excellent specificity. System has occasional false alarms under certain conditions (<2%)
- 10,000-100,000 CFU per mL
- 10,000-100,000 PFU per mL
- 10-100 ng per mL
- Spore lysis not necessary for detection by system
- Possible system could be adapted to identify aerosolized chemical agent
- System current can identify liquid chemical agent

