

Global CBRN Detector Market Survey



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MULTI-FUNCTIONAL TECHNOLOGIES

Multi-functional technologies can detect more than one biological, chemical, or radiological threat. In this survey, we identified systems that can address: biological and chemical agents; chemical and radiological agents; and biological, chemical, and radiological agents. Multi-functional technologies are ranked in the individual category rankings for each of the four scenarios, as well as highlighted in this section. For example, the T2 Biosystems - T2Dx can identify both chemical and biological agents; therefore, it will be found in the biological-specific as well as the chemical-specific rankings for each scenario and in Table 2.

SUMMARY

In this survey, technology information was collected using an extensive questionnaire that examined 14 evaluation criteria covering the capabilities and requirements of technologies for agent detection and identification. Completed surveys submitted by vendors were entered into a weighted model developed by subject matter experts, and while

these rankings may vary slightly from person to person, they were developed to approximate the general opinions of the detection and identification community at large. The evaluation criteria were established to differentiate between competing technologies and used to generate overall rankings for four different usage scenarios. Appendix A lists the specific questions posed and the weights provided for each answer.

A valuable way to use this guide is to review the operational scenario that most relates to a specific area of interest, identify which products scored well in the evaluation for each technology, and then closely examine these products using the information contained within the Detailed Product Sheets section. The Detailed Product Sheets present key answers to survey questions as well as the technologies' overall ranking in the four scenarios of use, the technology Impact Chart (a normalized representation of the overall score in each scenario), and a Scoring Analysis section that identifies the best scenario for each technology. It is important to note that all of the information conveyed in this survey is vendor supplied. The authors suggest that for any technology of interest, the reader contact the vendor for more information using the provided contact information.

Bio/Chem
Agilent 5975T LTM GC/MSD
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Agilent 6100 Series Single Quadrupole Mass Spectrometer
Agilent 6200 Series Time of Flight Mass Spectrometer
Agilent 6400 Series Triple Quadrupole Mass Spectrometer
Agilent 6500 Series Quadrupole Time of Flight Mass Spectrometer
AP40-FB
Cary 60 UV-Visible Spectrophotometer
Cary Eclipse Fluorescence Spectrophotometer
Chemical Biological Mass Spectrometer/Chemical Biological Detection System (CBMS/CBDS)
Chemical-Biological Detection System (CBDS)
Ciencia FluorSPR
Diagnostic Biosensors Field System
EAGLE
FALCON II Widefield Raman Chemical Imaging System
Falcon II Wide-Field RCI System
FLASH Reader
FluoroGazer - TIRF-EC microarray chem-biosensor Instrument
Hach GuardianBlue Early Warning System
Handheld FRET-Aptamer Sensor for CB Detection
ICS-5000 Ion Chromatography system
Morphix ChemBio Detector
Raman Shifted Eyesafe Aerosol Lidar (REAL)
Resource Effective Bioidentification System (REBS) - Laboratory Variant
T2Dx
TIRF Sense Handheld Chem-Biosensor
TIRF Sense Portable Chem-Biosensor
Universal Mass Spectrometer Sensor

Chem/Rad
AreaRAE GAMMA Steel
ChemPro 100i
ChemPro PD
HGVI
RAID-XP Combined Chemical & Radiation Detector
SAFESITE MIX (Multi-Threat Monitor)
Bio/Chem/Rad
AbleSentry
AIROCOLLECT-DETECT-288
ALPHA SENTRY ONE
ASAP V
BIOWARD
BUILDING SENTRY ONE
DCH
Manportable CBRNE Detection System
METRO SENTRY ONE
MicroPEM Personal Exposure Monitor
Ship Ballast CBRN Solar Powered Water Monitor - Portable
Ship Ballast CBRN Water Monitor

Table 2: List of Multi-functional Technologies