

# S461\561

## Handheld Soil Heavy Metal Analyzer



### Wide Detection Range

Primarily targeting heavy metal elements such as cadmium, mercury, etc. Simultaneously detects over 50 different elements



### High-Precision Positioning

GPS intelligent positioning for on-site location identification during field use



### Long Battery Life

Ultra-long standby time of 12 hours, continuous testing time exceeding 8 hours, with hot-swappable functionality



### Convenient Operation

Gravity-balanced design for hands-free operation; equipped with a photo function for easy post-data processing



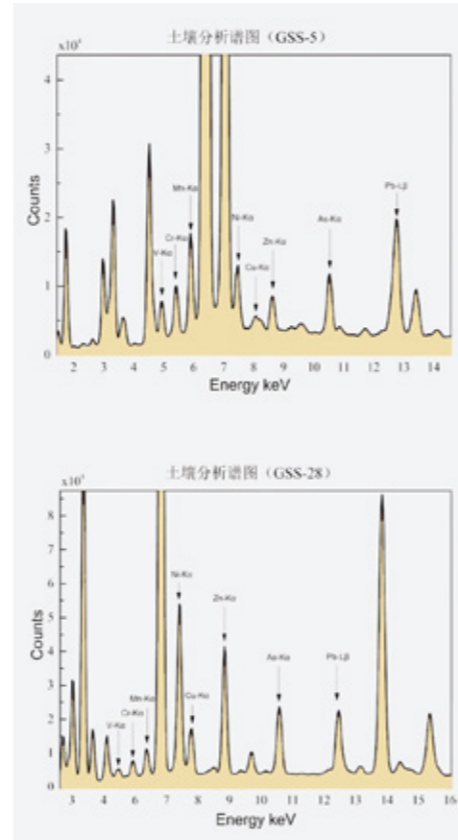
### Adaptable to Harsh Environments

Designed to withstand high temperatures, dust, and water, ensuring stable performance even in the field



### Safety Assurance

Material sensing function, intelligent status indicator lights, and safety interlock device; protective cover with calibration, radiation protection, and damage prevention functions



## Detection Limit (SiO<sub>2</sub>)

Elements: LOD(ppm)

P: 3640	S: 62	Ca: 37	V: 9	Cr: 16
Mn: 8	Fe: 10	Co: 4	Ni: 3	Cu: 3
Zn: 2	As: 3	Se: 1	Ag: 3	Cd: 3
Sn: 5	Sb: 7	Au: 3	Hg: 2	Pb: 2

## Repeatability

Elements	Cd	As	Pb	Cr	Cu	Ni	Zn
RSD	4.5	2.7	4.8	3	5	2.7	1.6

## Technical Specifications

Model	S461/S561
Detector	Si-PIN/SDD
Elemental Detection Range	S(16)~U(92)/Mg(12)~U(92)
Data Transmission	Bluetooth、E-Mail
Main Control System	2.4GHz - Customized industrial-grade main control system, CPU: 2.4GHz 500W high-definition camera, body storage: 4G (expandable to support 32G)
Network Connection Method	WiFi、Bluetooth
Machine Memory	Operating memory 1G
Detector Head Protective Cover (Patent Protected)	Probe protection, on-site calibration, radiation protection
Analysis Method	Intelligent direct reading optimization algorithm
Simultaneous Detection of Elements	Customizable according to customer requirements
Excitation Source	Integrated micro X-ray tube with 50KV/200uA
Cooling Method	Two-stage thermoelectric cooling
Operating Temperature	-20~70°C
Operating Humidity	≤90%
Safety	Object sensing function, intelligent status indicator lights
Dimensions	254*91*319mm
Material	Alloy, polycarbonate
Weight	1.5kg



## Fields of application



- Rapid determination of contaminant metal composition and boundary assessment in polluted sites.
- Real-time dynamic control at workplace sites, detection of hazardous elements, and screening of hazardous waste
- Control of contaminated sites, providing data evidence for in-depth analysis of pollution control methods
- Monitoring the impact of pollution sources such as mining areas, surrounding environments of factories, tailings, dust, and soil
- Rapid detection and control of industrial wastewater, waste materials, and leakage from production processes
- Swift investigation and measurement of contaminant metal composition, pollution patterns, and boundaries in polluted/wastewater
- On-site monitoring of metals involved in RCRA and prioritized control of contaminated metals
- On-site disposal and treatment of hazardous substances in original land, polluted water, and wastewater