

LIBS Analyzer For Lithium

ATL6000L

Features

- Safety laser
- Supply chain control
- Quick analysis
- AI technology
- Single test time less than 4 sec
- Water resistant level IP54 (GB/T 4208-2008) certified
- No any radiation, 3B eyes safety laser
- Resolution: < 0.1nm
- Blue tooth print Optional (Portable blue tooth printer)

Application

- Material Fabrication (Positive Material Identification, PMI)
- Recycling and Sorting
- Trading or Inspection

Description

LIBS spectrometer has a lightweight appearance, an overall weight of only 1.8KG, and a small and lightweight body. It adopts advanced high-power miniaturized nanosecond laser technology, combined with self-developed advanced spectral denoising, PLS, PCA and other intelligent algorithms , the operator can use it on site after a short training, and can quickly complete the qualitative and quantitative analysis of lithium content in lithium ore.

Thanks to the powerful light-weight atomic analysis capability of LIBS plasma spectroscopy, the laser-induced breakdown handheld LIBS spectrometer can also accurately measure the lithium content in the positive electrode material of lithium batteries. LIBS analysis does not require complicated sample preparation process or deployment. Various chemical reagents. Usually according to traditional analytical techniques, this requires the use of laboratory chemical analysis or methods such as ICP equipment and flame atomic absorption spectroscopy.



Parameters

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|-----------------------|---|
| Technology | Laser-induced breakdown spectroscopy (LIBS) |
| Dimension | ~3.6*11*5.9 in |
| Weight | 3.96 lbs including battery and argon |
| Macro camera | Integrated CCD macro camera for marking the measurement position |
| Battery | Lithium-ion battery, 16.8V, 43Wh |
| Standard oxygen tank | Purity:99.99% or greater, Disposable gas cylinder, about 300 times |
| Language | Simple traditional Chinese, English, Japanese, Korean, Russian, Italian, French, etc |
| IP rating | IP54 |
| WIFI | 802.11ac/n/b/a, supports 2.4 and 5.0GHz |
| Bluetooth | Bluetooth 4.1, BLE |
| Display | 4.0-inch touch screen, brightness adjustable |
| Internal storage | 16Gb |
| Laser | Class 3B, 1064nm |
| Spectrometer | <0.1nm resolution |
| Single test time | ~4s |
| Multiple test mode | By averaging multiple single results to improve accuracy |
| Matrix | Ore, inorganic material |
| TEGs | Na, K, Li, Ca, Mg, Al, C, Co, Cd, Pb, Fe, Cr |
| Sample Type | Block, tablet, powder |
| Operating system | Linux |
| Operating environment | 32-100 °F (0~40°C)40-95 °F (5~35°C) recommend |
| Alloy base | Alloy steel, carbon steel, stainless |
| Safety | Password protection, physical laser interlock safety switch, handle harness |
| Temperature range | 0~40°C storage, 5~35°C operation |
| Software | Software v8.5 |
| Warranty | One year factory warranty on all parts |
| Maintenance | Sapphire window cleaning using a cotton swap; Accuracy check/calibration using standard samples |
| Laser safety glasses | 190-400nm/800-1100nm, OD4+ |