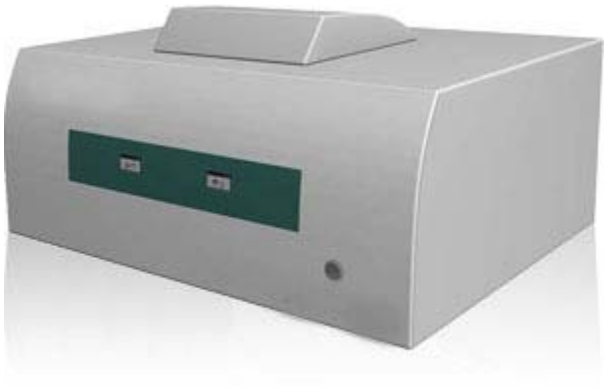
Analytical® Technologies Limited

THERMAL ANALYZERS

DSC- 2200 differential scanning calorimeter (DSC)



Product introduction:

DSC is designed to determine the inner heat transition relating to temperature and heat flow, it is widely used in the field of polymer development, performance testing & quality control. DSC research and development includes the following field: glass transition temperature, melting point, cold crystallization, crystallization, phase transition, oxidation induction time (OIT).

Main Features:

1. New designed oven structure ensures high resolution and good stability of base line;
2. Digital air flow meter may control the air flow rate accurately; the test data can be recorded into the database directly;
3. The instrument is bilateral control, may be controlled by both main frame and software. User-friendly interface, easy operation.

Technical parameters:

1. DSC range: 0～±500mW
2. Temperature range: room temperature ~ 800 ℃ air-cooled
- 50 ℃ ~ 800 ℃ semiconductor refrigeration *
- 100 ℃ ~ 800 ℃ liquid nitrogen refrigeration *
3. Heating rate: 1 ~ 80 ℃ / min
4. Cooling rate * : 1 ~ 20 ℃ / min
5. Temperature resolution: 0.1 ℃
6. Temperature fluctuations: ±0.1℃
7. Temperature repeatability: ±0.1℃

8. DSC noise: 0.01μW

9. DSC resolution: 0.01μW

10. DSC accuracy: 0.1 u W

11. DSC sensitivity: 0.1 u W

12. Control Mode: Rising temperature, constant temperature, cooling temperature (full automatic programmed control)

13. Curve scanning: Rising scan, *cooling scan

14. Atmosphere control: Embedded digital flow meter & Software control

15. Display: liquid crystal display (LCD)

16. Data interface: RS232 interface

17. Parameter standard: equipped with standard material (indium, tin, and lead), the user may correct temperature and heat enthalpy

18. Note: * for selecting projects, all technical indicators can be adjusted according to customers' demand

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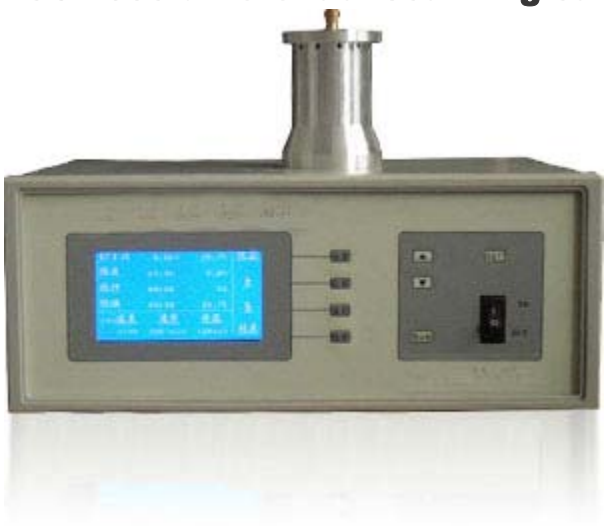
DSC-2335 differential scanning calorimeter (DSC)



Product introduction:

Measure and research the following characteristics of material:

Melting and crystallization, glass transition, thermal stability ,oxidation induction period OIT, the polycrystalline compatibility, reaction heat, enthalpy and melting point of material, thermal stability, crystallinity, phase transition, specific heat, the liquid and crystal changes, curing degree, reaction kinetics, purity, identification of materials, etc.

Technical parameters:

1. DSC range: 0～±500mW

2. Temperature range: room temperature ~ 800 ℃ air-cooled

- 30 ℃ ~ 800 ℃ semiconductor refrigeration *

- 100 ℃ ~ 800 ℃ liquid nitrogen refrigeration *

3. Heating rate: 1 ~ 80 ℃ / min

4. Cooling rate * : 1 ~ 20 ℃ / min

5. Temperature resolution: 0.1 ℃

6. Temperature fluctuations: ±0.1℃

7. Temperature repeatability: ±0.1℃

8. DSC noise: 0.01μW

9. DSC resolution: 0.01μW

10. DSC accuracy: 0.1 u W

11. DSC sensitivity: 0.1 u W

12. Temperature-control and means: Rising temperature, cooling temperature, constant temperature (full automatic programmed control)

13. Curve scanning: warming scanning, cooling scanning *

14. The atmosphere control: static or dynamic atmosphere, gas flow control device

15. Display: Big LCD screen (LCD)

16. Data interface: RS232 interface, special software (not regular free upgrades)

17. Parameter standard: With standard materials (indium, tin, lead), User can correct the temperature and heat content according to rquirements

18. Remarks: * the selective matching items, All of the technical specifications can be adjusted according to customers' requirements

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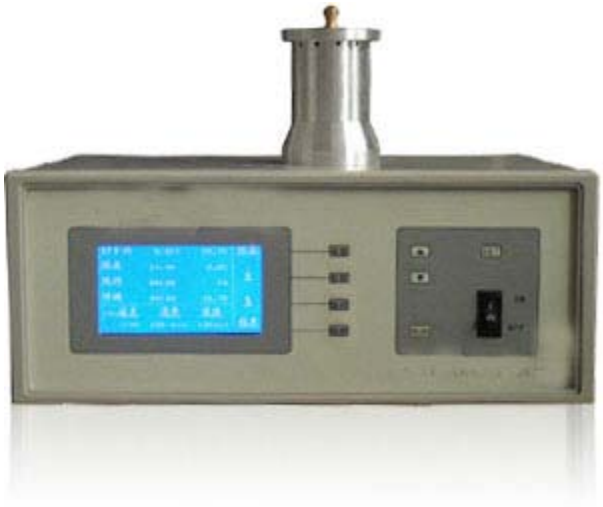
M icro- DSC(micro differential scanning calorimeter)



Product introduction:

Trace heat meter is a new kind of analysis instruments showing that the stability of samples changes with temperature. Our company self-developed thermal analyzer series products are mainly oriented to industrial users, scientific research and teaching, widely used in all kinds of materials and product research and development in chemical field, process optimization and new quality inspection, etc,

Technical parameters:

1. Temperature Range: - 10 ~ 200 ℃
2. Scanning rate: 0.01 ~ 10 ℃ / min
3. Control mode: Rising temperature, Cooling temperature, Constant temperature (automatic control),
4. Display: characters liquid crystal display (LCD)
5. Output means: the microcomputer system, printers
6. Curve depicting: supporting intelligent software, realizing automatic recording curve, automatically printing experiment report
7. Work Power: AC220V 50Hz
8. Selecting brand computers：17-inch LCD 512M RAM 80G hard disk

9. Provide irregularly software free upgrades and tracking after-sales service.
10. Provide one year consumables.

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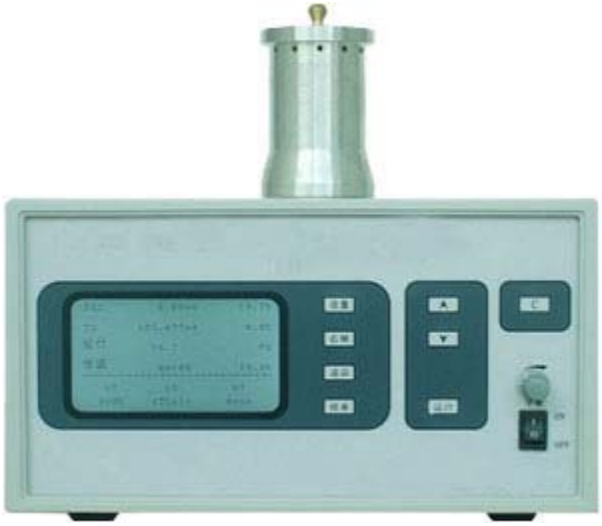
TGA- 2100D thermo gravimetric analyzer



Product introduction:

Thermo gravimetric analysis (TGA) is in TG, temperature, the temperature or cooling process, observe the quality with temperature or the change of time, the purpose is to study material thermal stability and components. Widely used in plastic, rubber, coating, drugs, catalyst, inorganic materials, metal materials and composites fields of research and development, optimizing process and quality control

Measurement and research material following characteristics:

Thermal stability, decomposing process, adsorption and desorption, oxidation and reduction, ingredients quantitative analysis, additives and filler influence, moisture and volatiles, reaction kinetics.

Technical parameters:

1. Temperature range: Room temperature ~1150℃ （Can be extended to 1350℃）
2. Temperature resolution: 0.1 ℃

3. Temperature fluctuation: ±0.1℃

4. Heating rate: 1 ~ 80 ℃ / min

5. Cooling rate * : 1 ~ 20 ℃ / min optional cooling system

6. Temperature control mode: Rising temperature, Cooling temperature, Constant temperature

7. The cooling time: 15min （1000℃ ~ 100℃）

8. Balance measuring scope: 1mg~2g (Can be extended to 5g)

9. Resolution: 0.1 u g

10. Constant temperature and time: 0 ~ 300min (set arbitrarily)

11. Display: characters liquid crystal display (LCD)

12. Atmosphere: inert, oxidizing, reducible, static and dynamic

13. Atmosphere device: Built-in gas flow meter, including switch two way gas and control flow volume

14. Software: Intelligent software can record TG curves automatically, Processing data and print experimental statements

15. Data interface: RSS - 232 interface, special software (irregularly free upgrades)

16. Power: AC220V 50Hz

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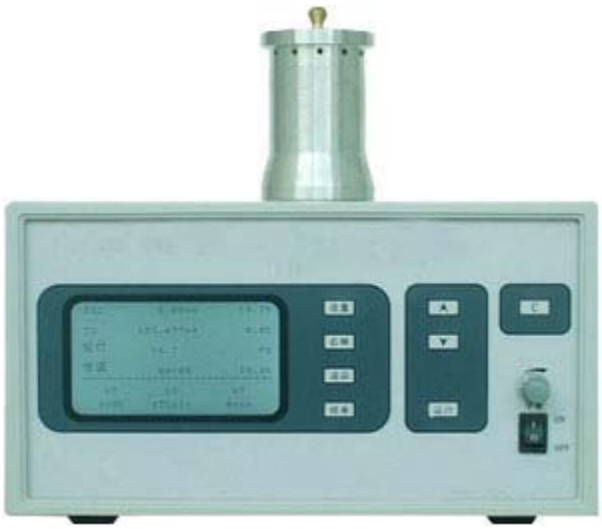
Micro - TGA micro thermo gravimetric analyzer



Product introduction:

Micro - TGA , micro thermo gravimetric analyzer is mostly used in the field of polymer materials, pharmaceutical, food, organic chemistry, etc. It is a powerful tool for the study of the PCB decomposition temperatures, with 0.1 ug ultra-high weighing resolution,

Technical parameters:

1. The temperature range: room temperature - 1000 ℃

2. Heating and cooling rate: 0 ~ 60 ℃ / min

3. The cooling time: 15min (1000 ℃ ~ 100 ℃)

4. Weighing range: 100 mg

5. Weighing resolution: 0.1 u g

6. Measuring atmosphere: inert, oxidizing, reducing, static and dynamic

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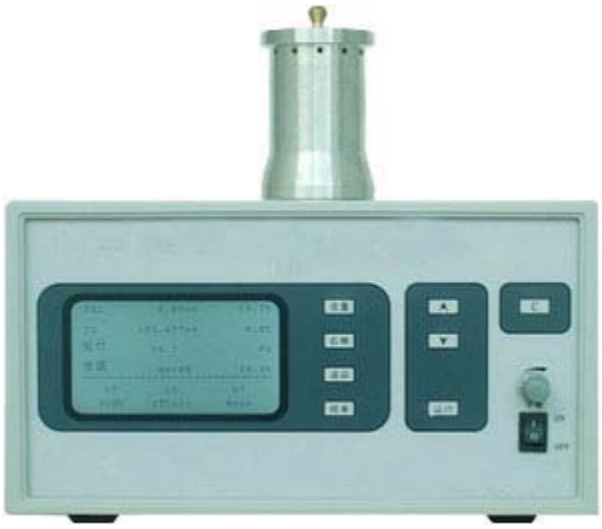
STA – 3200 Synchronous thermal analyzer



Product introduction:

Synchronous thermal analysis combines TGA (Thermogravimetric Analysis) with DTA (Differential Thermal Analysis) or DSC (Differential Scanning Calorimetry), in which we can get the information of TG and DTA or DSC in synchrony using the same sample during the same operation.

Measure and research the following characteristics of the materials:

DSC: Melting and crystallization, phase change, reaction temperature and heat, heat of combustion and specific heat capacity, etc

TG：Thermal stability, decomposition, REDOX, adsorption and adsorption, free water and gesso content, ingredients proportion computation, etc

Technical parameters:

TGA/DSC　STA - 3200　Synchronous thermal analyzer

1. Temperature range: Room temperature ~1150℃ （Can be extended to 1350℃）

2. Temperature resolution: 0.1 ℃

3. Temperature fluctuation: ±0.1℃

4. Heating rate: 1 ~ 80 ℃ / min

5. * Cooling rate: 1 ~ 20 ℃ / min　optional cooling system

6. Temperature control mode: Rising temperature, Cooling temperature, Constant temperature

7. Constant temperature time : 0~300min　Can be set arbitrarily

8. cooling time: 15min(1000℃~100℃)

9. Wide range of weighing: 1mg~2g　(Can be extended to 5g)

10. DSC measuring range: 0～±500mW

11. DSC Resolution: 1μW

12. Resolution: 0.1 ug

13. Constant temperature and time: 0 ~ 300min Can be set arbitrarily

14. Display: liquid crystal display (LCD)

15. Atmosphere: Inertia, oxidability, reducibility, static and dynamic

16. Atmosphere device: Built-in gas flow meter, including switch two way gas and control flow volume

17. Software: Intelligent software can record TG curves automatically, Processing data and print experimental statements

18. Data interface: RSS - 232 interface, special software (the software is free upgrades)

19. Work Power: AC220V 50Hz

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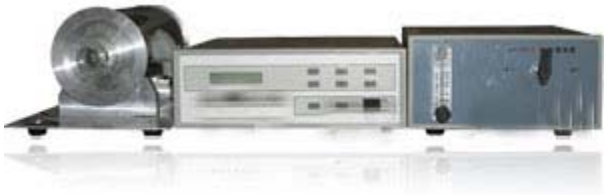
CBCT 2350 Carbon Black Content Tester



Introduction:

1. This instrument applies to polyethylene, polypropylene and poly **DZ3500 Carbon Black Content Tester** isobutylene plastics in the determination of the content of carbon.

2. The test result is obtained through the specimen under the nitrogen protection, after analyzing the weight of high temperature decomposition.

3. This apparatus has many advantages such as being easy to use, simple operation, reliable working, accurate measurement, automatic temperature control and so on.

Testing standard:

GB 13021-1991

GB/T 2951.41-2008

Equipment:

1、Test temperature: room temperature ~1000℃

2、Temperature adjustment: full-program control (Setting freely)

3、Display: Characters LCD Display

4、Heating tube inner diameter: Φ31×（400±50） mm

Overheating protection

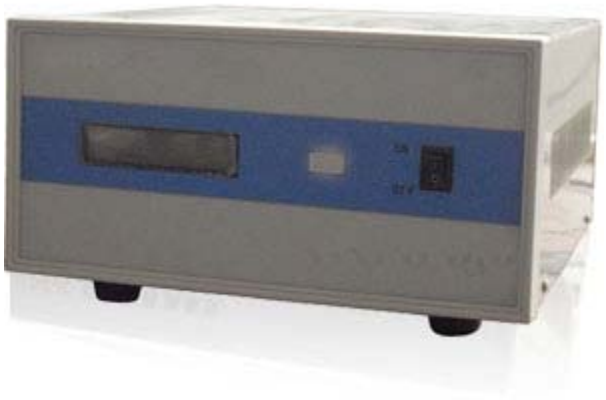
External temperature probe

Flow meter and regulator

Silicone connecting pipe

Burning boat

DCL 2501 dielectric constant locator



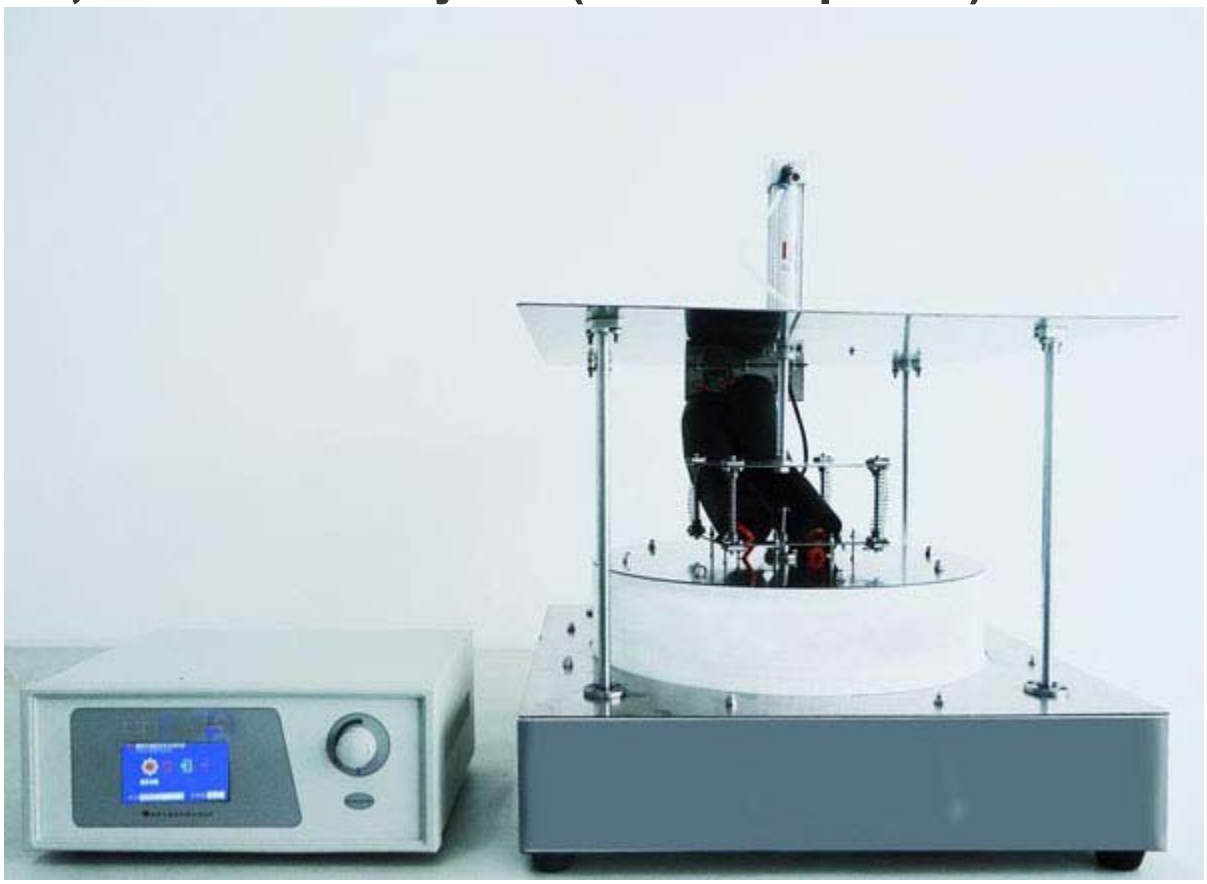
Introduction:

Medium loss and dielectric constant is an important physical property of materials such as metal oxide, plank, porcelain (pottery), mica, glass, plastics, etc. Through measurement, the various factors of dielectric loss and dielectric constant can be further understood, providing conditions for improving the properties of materials. The equipment is used for applied research of inorganic metal new material properties in scientific research institutions, schools, factories and other institutions.

Technical indicators:

1. Q value range classification: 30, 100, 300, 999, automatic transmission
2. Inductance measuring range: 0.1μH ~ 1H
3. Capacitance measuring scope: 1 ~ 460pF (capacitance measurement more than 460pF see service regulations)
4. Accuracy: + 0.2 pF.
5. Oscillation frequency range: 10 kHz ~ 50MHz;
6. Q qualified instructions Pre-set function, Pre-set range: 5 ~ 999.
7. Sample size: Thickness: 2 ± 0.5 mm, long * width: > 30mm * 30mm

TCT, thermal conductivity tester(Constant temperature)



Introduction:

thermal conductivity meter has many advantages, such as large area of the test sample, variety test materials (single materials or composite materials), high precision temperature control, reliable and steady performance, high degree of automation control, convenient operation, etc.

Test range

Single material: foam plastics (other flat surface insulation material, plate), polyurethane, phenol, urine aldehyde, mineral wool (glass cotton, rock wool, mineral wool), cement wall

Composite materials: glass composite CRC, cement enhanced polyphony board, sandwich concrete, fiber glass panel composite plate, paper cellular plate

Technical parameters

Biggest test pieces size

Long * width * thick: 300 * 300 * 50mm

The precision of temperature control: 0.05 ℃

Resolution: 0.01 ℃

The maximum hot plate set temperature: 80 ℃

Minimum of cooling-plate set temperature: room temperature

Measuring precision: 3%

Coefficient of thermal conductivity measuring range: 0.010 ~ 5.000 w (k.m)

Power supply: AC 220V

Instrument characteristics:

1. The surface temperature is even and accurate.

Using large block purple COINS as Temperature profile board in the design to improve the consistency of the surface temperature of the test sample.

2. Advanced control system.

It can control the temperature quickly and steadily.

3. Friendly human-machine interface

Both cold and hot plate temperature and heat flux power can be intuitively displayed by large screen LCD.

4. Simple operation.

Electric mobile splint and clamping force LCD can be adjusted,

Insulation door can be shut down automatically after sample installation in place

5. Intelligent data processing.

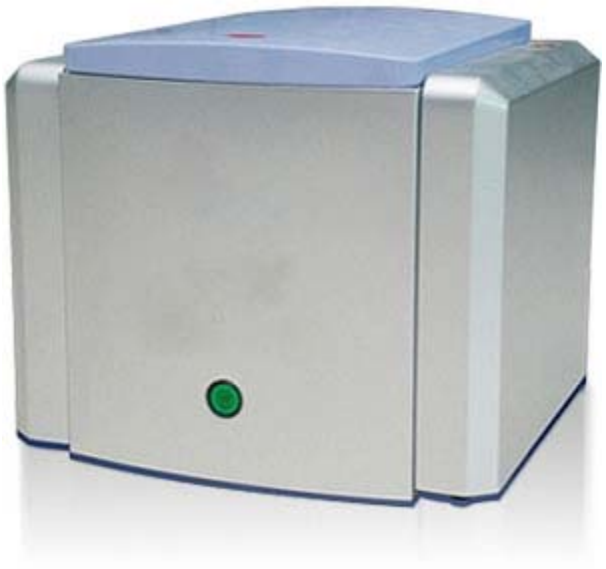
Highly automated computer data communication and report processing system,

Flat thermal conductivity meter has computer communication interface, which can display temperature curve in real time.

6. Automatically generate test report and print.

There are test records, data processing and report format in the software, which can issue the experiment report automatically.

X-ray fluorescence analyzer



X-ray fluorescence analyzer is a newly developed analyzer of our company, applicable to the cement, mining, stainless steel, aluminum alloy, copper zinc alloy, lead alloy, refractory, ferrosilicon and glass industries, etc

Instrument characteristics:

1. Analysis and measure various elements (Allocation any elements from Na to U according to the customer request) at the same time;
2. Can detect the solid, liquid, powder, without complex sample preparation process;
3. Adopt imported SI - PIN detector, with fast analysis speed;
4. High precision, good stability, low failure rate;
5. Adopt multi-level shielding protection, safety and reliable radiation;
6. With rich WINDOWS XP/VISTA application software function, unique advanced analysis method, various charts and tendency chart provided the operator with intuitive support, which is simple to operate, easy to use, and the results can be directly output to Excel, convenient for statistically analyzed.

Main technical indices:

1. Multi-function Sample preparation device

X fluorescence analyzer Sample preparation device can hold various shape

Test samples.

A. sample types: solid, liquid, powder.

B. Environment in sample room: air or vacuum. It is automatically controlled by the software, without manual operation.

2. X CRT motivational systems

The 50KV system uses low power is high-pressure X-ray generator as excitation source. It is composed by high voltage generator, X-ray generator and control and display system.

A. high voltage generator: voltage and current is automatically controlled and displayed by the software.

Voltage range: 0V to 50kV continuous adjustable.

Current range: 0mA to 1mA continuous adjustable.

B. X-ray generator: adopting X-ray tube with low power, natural cooling and high life-span, and choosing target materials according to the actual application.

3. Imported high resolution SI - PIN detector system SI - PIN electric refrigerating high-resolution high count-rate detectors.

4 system software

A. operation: WINDOWS XP operating system software, powerful and easy to use.

B. function: spectrum shows, analysis element Settings, energy scale, X-ray high-voltage, current automatic control, automatic vacuum control.

C. analysis methods: linear fitting, quadratic curves, intensity correction, content, basic parameters calibration method.

D. instrument drift automatic revision: ensure the analysis results of the instrument long-term stable