

Microwave HAMiLab-C1500

High temperature microwave sintering furnace



1. Microwave heating.
2. Temperature up to 1600 degree.
3. Heating speed up to 50 degree per minute.
4. No pollution to material.

Description

HAMiLab-C1500 is our 3rd generation high temperature microwave laboratory system. HAMiLab-C1500 is a sophisticated upgrade to traditional muffle furnaces, with the high level of accuracy, control, and speed that are customary in Synotherm systems. Drying, binder burn-out, synthesis and sintering of powder and solid materials, metals, and glass can be completed in this system in a 3-4 hour period. HAMiLab-C1500 was designed to increase the productivity of solid state laboratories from one set of samples to 3-4 sets of samples per day, without having to continuously run the system during periods of inactivity.

Application field:

- Claiming / synthesis of powder or particle materials:
- Electronic ceramic powders: barium titanate, barium-strontium titanate, strontium titanate, barium zirconate

titanate;

- Lithium ion battery anode materials: lithium cobaltoxide, lithium manganate;
- Various colorants, glaze material, inorganic pastel;
- Alumina, magnesium oxide, zinc oxide, manganese dioxide, manganous-manganic oxide, zirconia, ammonium metavanadate, vanadium pentoxide, titanium dioxide, zinc carbonate, manganese carbonate, aluminum hydroxide, magnesium hydroxide, lithium cobaltoxide, zinc ferrite, Tri-chromatic rare earth fluorescent powder (Red), cement.

Synthesis / sintering of devices:

- Electronic ceramics: Piezoresistive element, thermistor, piezoceramics, microwave medium ceramics;
- Magnetic materials: hard magnetic, Ni-Zn, gyromagnet ferrites;
- Honeycomb ceramics, daily-use ceramics and glass ware;
- Oxide ceramics and refractory materials: alumina, zirconia, magnesium oxide and other oxide composites;
- Incineration, cremation, scaling loss experiments

Technical specification:

Technical specification	
Model	HAMiLab-C1500
Voltage	AC 220 plus/minus 10V/ 50Hz,
Rating power	4.0KW
Microwave output power	0.2-1.40KW continuously variable
Microwave frequency	2.45GHzplus/minus 25MHz
Max working temperature	1600 Celsius degree
Temperature measuring way	IR thermometer(U.S.A. Raytek)
Temperature range	250 Celsius degree -1650celsius degree.
Temperature accuracy	plus/minus 0.5%
Atmosphere system	air
Max loading space	120x120x40mm(LxWxH)
Cycle cooling water flow	more than 0.8m ³ /h
Cycle cooling water pressure	more than 0.15MPa
Cycle cooling water total hardness	less than 60mg/L(tap water can replace it)
Control system	embedded system and touch screen, connected with PC, with data memory and printing function
Microwave leakage	less than 1mw/cm ² , (national standard is less than 5 mw/cm ²)
System outside dimension	750x750x660mm(LxWxH)