

Furnace for crystal fabrication

IR image furnace

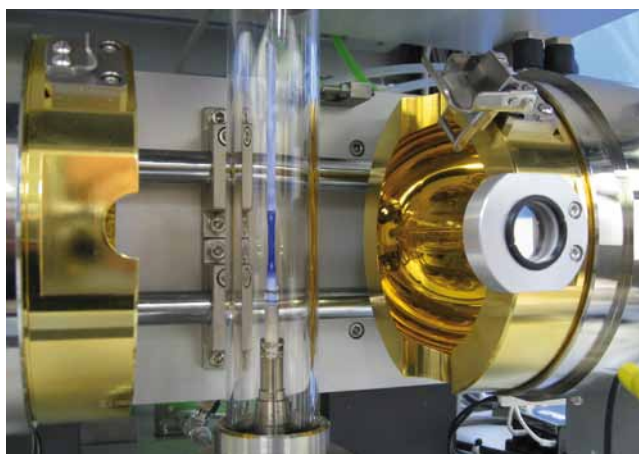
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The IR image furnace is capable of growing

- High temperature superconductors
- Dielectrics and magnetic materials
- Metal compounds
- Semiconductors
- Optical crystals
- Precious stones

- Unsurpassed performance in a convenient, stand-alone design
- Efficient 2 mirror design results in less risk of multiple heating zones
- 2100 °C temperature in floating zone region
- Excellent IR power stability
- No external cooling requirements
- Uses standard "off the shelf" lamps
- Compact design and small footprint



Preliminary Specification

Lamp	Number	2
	Type	halogen lamp
	Power (programmable)	2 x 650 W max.
	Power lamp stability	0,02%
Mirror	Type	double elliptical
	Temperature (floating zone region)	2100 °C
	Crystal growth diameter maximum	6 mm
	Cooling	integrated closed-loop coolant (no need for external cooling water)
Shaft control	Crystal growth speed (both ranges standard on all systems, user selectable)	0.1 – 1.4 mm/h, 1 – 14 mm/h
	Shaft drive	upper & lower independent
	Maximum crystal length	100 mm
	Speed	coarse: 10 mm/min, fine: 1 – 10 mm/h
	Rotation	6 – 60 /min
Other	Crystal growth monitoring	via CCD camera and built-in LCD display
	Max. Pressure (floating zone)	300 kPa
	Total furnace size	75 cm (W) x 75 cm (D) x 170 cm (H)
	Furnace weight	approx. 450 kg
	Electric power requirements	220 V, 20 A, 1 phase

