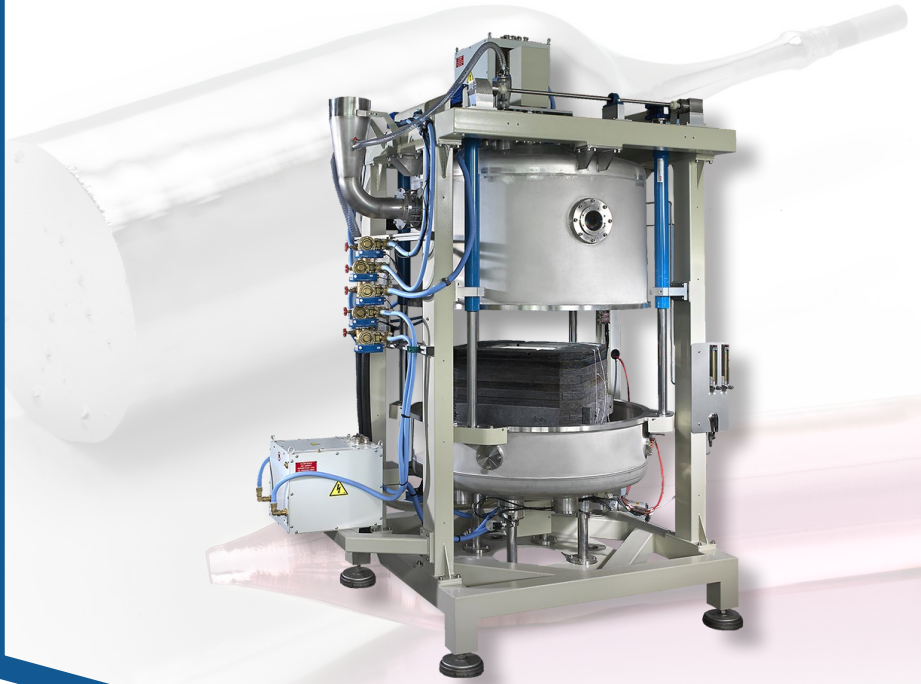


KYROPOULOS

CRYSTAL GROWTH MACHINE



ECM Lab Solutions offers several **Cyberstar Kyropoulos** furnaces varying in size and heating power. The heating technology can be inductive or resistive depending on the process requirements. The size of the crucible can reach up to 400mm diameter and a working temperature of 2300°C.

These machines are all equipped with the precise and stable Cyberstar pulling head having a conversion rate of 0.01 to 100 mm/h translation speed. Kyropoulos Crystal growth process is a top seeding melt growth method where the growth interface is constantly beneath the surface of the melt without any solid contact between the crystal and the crucible.

Known for its high quality, relatively large crystals, this method is characterized by a consistent low thermal gradient growth environment. It is commonly used for the growth of materials sensitive to mechanical and thermo-mechanical stress, which is usually difficult to obtain by other crystal growth methods. The seed is dipped on the surface of the melt to allow the growth of the crystal inside.

- Medical Imagery
- PV
- LED
- Solid Lasers
- Telecommunications
- Defense

AN ECM GROUP OFFER

ECM Lab Solutions helps laboratories to develop innovative products and processes by offering advanced furnace technologies under one ECM Group brand. This offer gathers all laboratory furnaces from the ECM Group. Its expertise includes the heat treatment of steels, ceramics and silicon. As well as crystal growth applications, coatings and melting processes for a wide range of research fields.



FEATURES

Various Crystal sizes up to 100 kg capability

Cyberstar precise pulling head

Translation speed from 0.01 mm/h to 100 mm/h and in Fast mode up to 100 mm/min

Precise pressure regulation system

Equipped with quartz (or sapphire) window view ports

Operating security loop system

Water cooled

(working temperature in the reactor up to 2600 °C)

Chamber capabilities for primary and secondary vacuum



OPTIONS

- Possibility to operate under high pressure
- Weighing device up to 60 kg
- Added crucible translation (manual or automatic)
- Controlled mass flow of different atmosphere gases

INTEGRATION

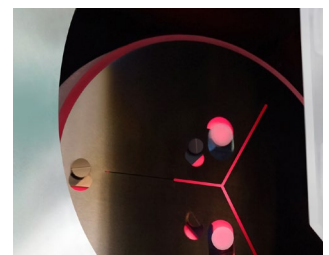
Possibility of Automation

MATERIAL

- | | |
|-------------------|-----------|
| ■ SoG c-Si | ■ Ge |
| ■ Sapphire | ■ Silicon |
| ■ III-V compound | ■ LSO |
| ■ II-VI compounds | ■ InSb |



Cyberstar



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