**EVAPORATORS**

**Additional equipment for Evaporators**

**Water Cooling Systems**

CreaTec offers custom designed water cooling systems for evaporation systems.

**Crucibles**

Crucibles are available for all common source materials and for a large variety of sizes and materials.

**Effusion Cell Shutters**

Effusion cell shutters for evaporators are designed with two stacked shutter blades - one is directed towards the orifice of the cell and the other one towards the sample. The shutter cooling blade can be easily interchanged. Shutter type and diameter vary depending on the application.

**High Temperature Cell (HTC)**

The conventional High Temperature Cell is designed to evaporate materials with low vapor pressure at temperatures up to 2000 °C. The full area of the evaporation chamber is at a constant temperature, and the sample motion is perpendicular to the beam. The cell is characterized by its stability and durability.

**TUBO Effusion Sources**

Instead of a wire filament, the TUBO source uses a tubular filament that ensures the wider structure. The heating current flows along the source axis, up through the final insulation shields and down through the filament. The crucible temperature is controlled via a thermocouple at the bottom of the crucible. This concept enables a reproducible temperature control of flows along the source axis, up through the heat insulation shields and down through the filament. The crucible temperature can be precisely adjusted by means of a hotter filament. Operating temperatures range from 80 °C to 2000 °C.

**Evaporators**

CreaTec offers a wide range of evaporating components.

**General Information**

Our evaporators are used in ultra high vacuum (UHV) evaporation systems to generate ultrapure molecular and atomic beams from a large variety of elements and compounds. The different types of evaporators are manufactured to evaporate a wide variety of materials. CreaTec Evaporators are used in ultra-high vacuum (UHV) evaporation systems to generate ultrapure molecular and atomic beams from a large variety of elements and compounds. The different types of evaporators are manufactured to evaporate a wide variety of materials.
The Single Filament Cell is designed for evaporation of raw materials such as germanium, indium, and tin. The heating system is surrounded by a cooling coil to achieve ultra-low temperatures. The cell is surrounded by the material to be evaporated, and the crucible is surrounded by the material to be evaporated. The temperature is controlled by a controller to maintain stable temperature. The cell is suitable for the evaporation of low-temperature materials such as arsenic, antimony, selenium, and zinc.

The Cracker Cell integrates evaporation and cracking of materials. It is typically operated at two temperatures. The upper temperature is adjusted to the temperature of the chosen material, while the lower temperature is adjusted to the temperature of the cracking material. The cell is suitable for the evaporation of high-temperature materials such as arsenic, antimony, selenium, and zinc.

The Ultra Low Temperature Cell evaporates various materials in a very low temperature range. The cell has an integrated valve to reproducibly control and record the temperature of the evaporation stage. The cell is suitable for the evaporation of low-temperature materials such as arsenic, antimony, selenium, and zinc.

The OLED Effusion Cell is designed for evaporating organic materials. The cell has an integrated shutter to control the evaporation rate. The cell is suitable for the evaporation of organic materials such as Alq3, HT, and Alq4.