

CRACKER EFFUSION CELL CRC



As, S, Sb and Se are typically evaporating as molecules when using a standard low-temperature-effusion cell.

To improve the quality of the epilayers it can be helpful to crack these molecules.

A special heating system attached to the top of the Low-Temperature-Effusion cell cracks these molecules at temperatures much higher than the evaporation temperature.

Special insulation parts are used to minimize the crosstalk between the two heating systems.

OPTIONS:

- Cracker effusion cell made from molybdenum
- Crucibles with inserts are available
- Downward looking version

Technical Data

Standard :

Type	CRC
Heating system	Radiation heating, tantalum wires with PBN insulators
Temperature range	100 °C ...800°C bulk zone 100 °C ...1000°C cracker
Temperature stability	≤ 0.1 K depending on the PID controller
Max. outgas temp	1200 °C Eff. cell without crucible 800 °C ... 1200 °C depending on the crucible material
Max. power	1200°C cracker 220 W bulk zone 180 W cracker
Max. current	8 A bulk zone 9 A cracker
Bakeout temperature	250°C
Conditioning	Heated to maximum temperature with and without crucible
Shipping	Stainless steel container with valve

Custom :

Flange size	CF 40 / CF 63
Max. outer diameter	38 mm
Length	As specified
Thermocouple type	Two independent thermocouples type C / WRe 5% - 26%
Crucible material	PBN / PGR / W / Ta / quartz
Crucible capacity	5 - 39 ccm (or on request)

Options :

Integrated Shutter	Optional
Water cooling	Optional
Other dimensions	As specified
Crucible with insert	Optional
Downward looking version	Optional
Molybdenum version	Optional

