

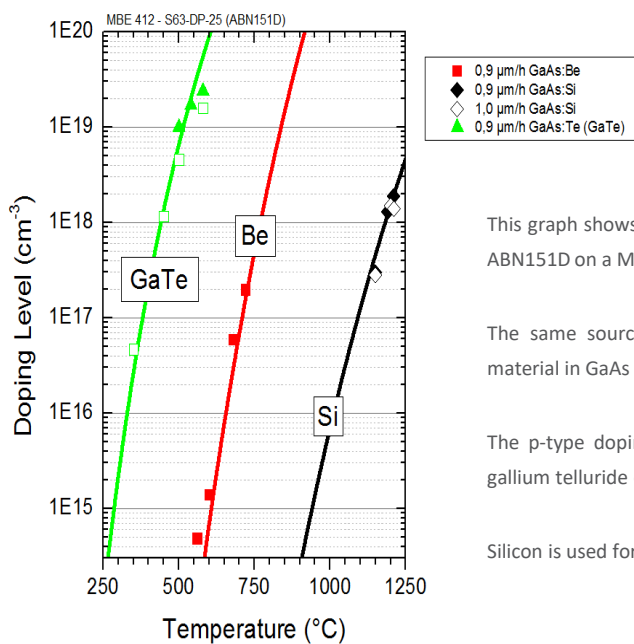
Dopant sources – ABN D

- Low thermal inertia/low volume/uniform beam distribution
- High thermal efficiency (limits outgassing)
- Extremely efficient, reliable and reproducible source
- Provides a pure, stable and reproducible beam flux
- Crucible volume and shape tailored to dopant evaporation - Dopant uniformities better than $\pm 1\%$
- Optional integrated water panel/shutter



Product introduction

Riber cells for doping applications are designed to obtain both highly stable beams and rapid variations in beam flux over several orders of magnitude. These cells generally employ shallower and more conical crucible to enable the use of lower temperatures for the highest dopant levels and to ensure excellent doping uniformities.



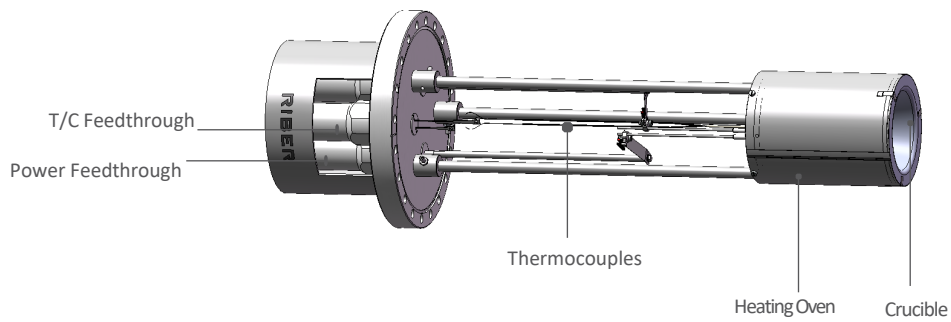
This graph shows the doping level achieved with a ABN151D on a MBE412.

The same source is used with different doping material in GaAs based optoelectronic devices.

The p-type doping is achieved with beryllium or gallium telluride compound material.

Silicon is used for the n-type doping.

Layout



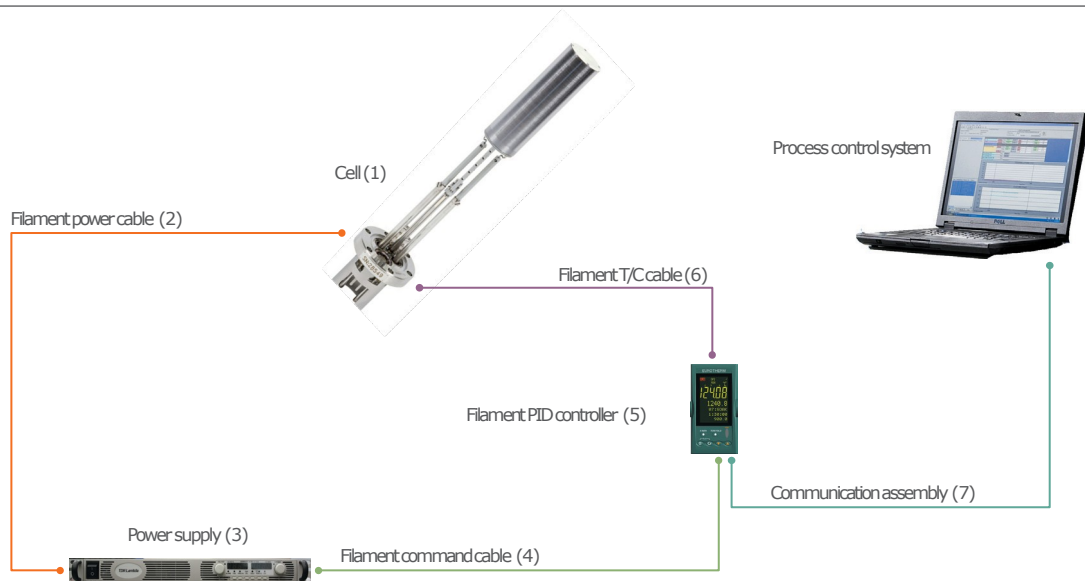
Specifications

Cell characteristics	ABN 135 D	ABN 151 D	ABN 160 D	ABN 220 D	ABN 500 D
Source capacity	11/22 cc*	25 cc	65 cc	220 cc	500 cc
Mounting flange	CF35	CF63	CF100	CF150	CF150
Temperature stability	± 0,2°C				
Crucible shape	Conical				
Crucible material	PBN				
Filament type	Single Tantalum filament				
Thermocouple type**	C type				
Typical operating temperature	600 – 1200°C				
Maximum outgassing temperature	1400 °C				
Power supply	One power supply / One temperature controller				

* Crucible dependent - 2 versions – Uniformities will vary

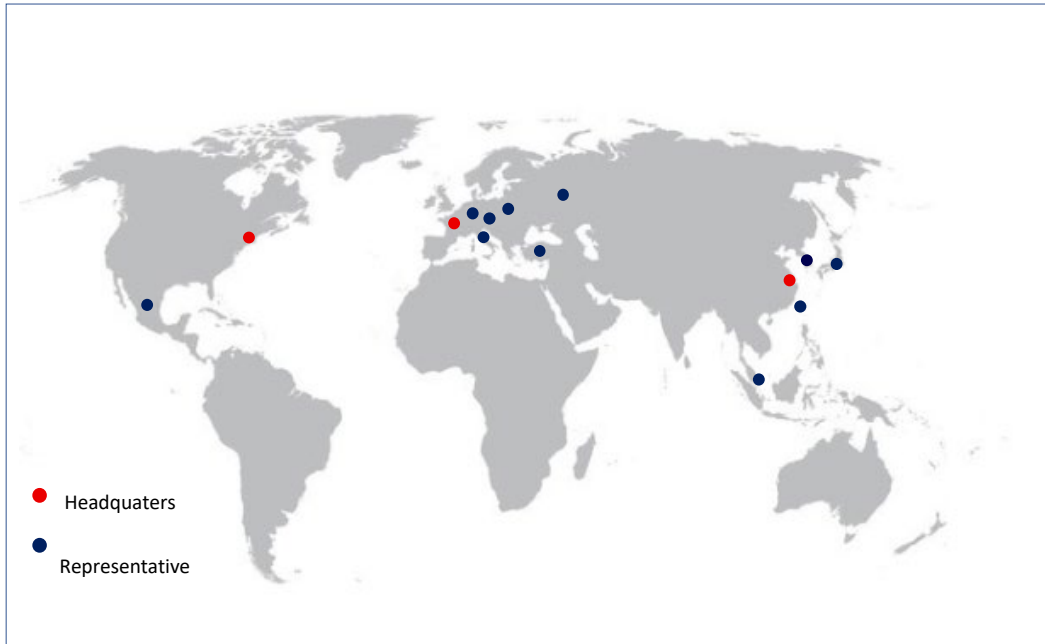
**Please consult Riber for K type thermocouples

Component interfacing



RIBER SALES AND SERVICE NETWORK

For more information, please contact your local sales representative



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