Ceramic Heater

Due to the material characteristics of AlN, Ceramic Heaters provide excellent corrosion and plasma resistance as well as thermal conductivity, making them suitable for processes of extreme conditions and high-temperatures(0 ~ 700°C).

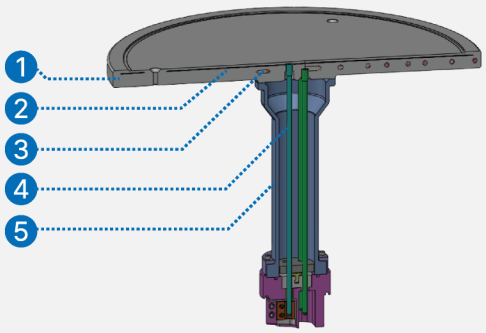
Manufacturing Process Flow

Applications	PE-CVD	LP-CVD	AP-CVD	Annealing	Diffusion

AlN Heater Front View

AlN Heater Bottom View

Manufacturing Specifications



1 Ceramic Plate 2 Electrode
3 Heater Element 4 Rod 5 Shaft

Sizes
200mm, 300mm

Heater Types
Single Zone, Dual Zone, Multi Zone

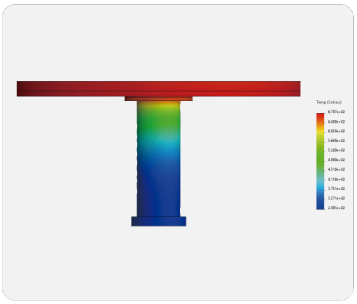
Plate Sintering
Hot Press

RF Electrode
Molybdenum Mesh

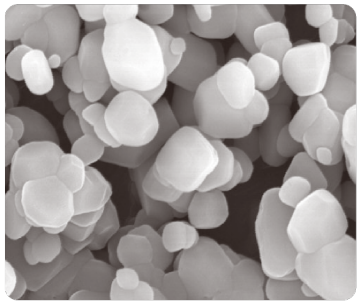
Temperature Uniformity
≤±1%

Thermal Conductivity
170W/m-K

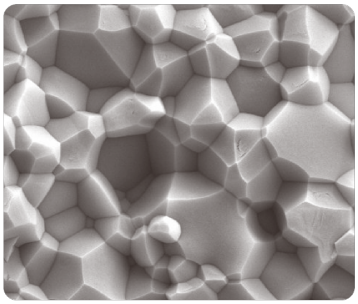
Design/Simulation



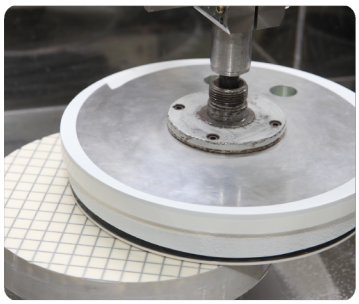
Materials



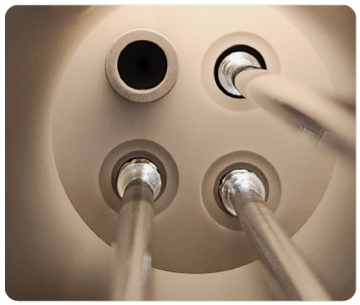
Sintering



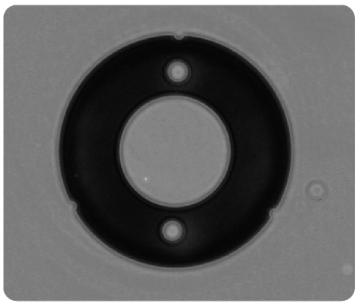
Machining



Brazing



Ceramic Bonding



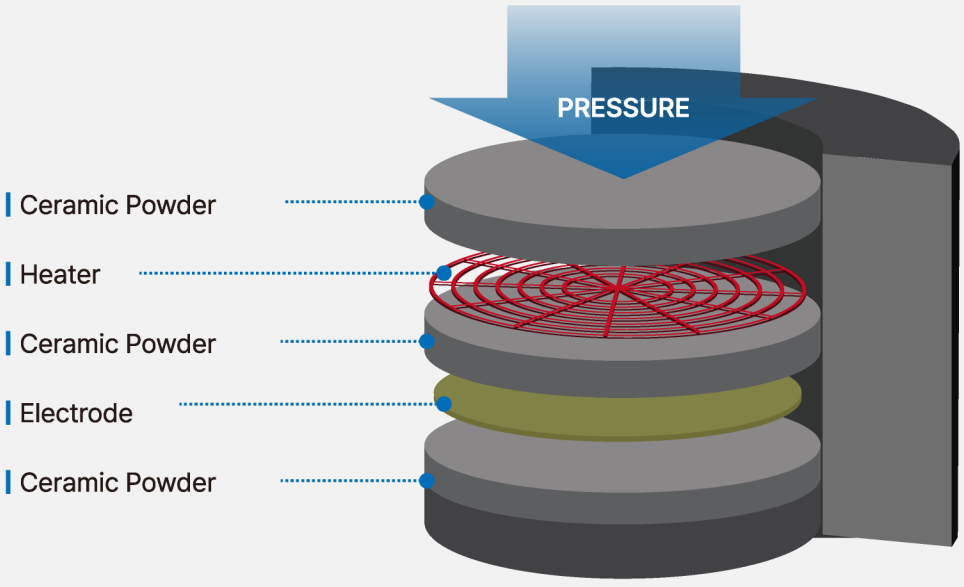
Ceramic Sintering Technology

Through our sintering technology, we manufacture ceramic components in-house, allowing modification of powder material composition, types of heating elements, and sintering conditions to meet the individual needs of our clients.

Hot Press Process

Applying heat and pressure to forge high-density ceramic plates

1. Powder Placement
2. RF Mesh Placement
3. Powder Placement
4. Heater Coil Placement
5. Powder Placement
6. Hot Press

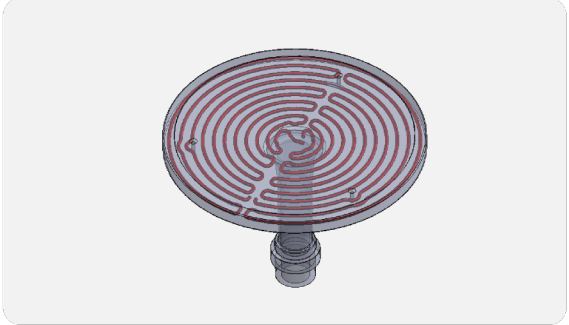


Heater Technology

Single Zone Heating and Dual Zone Heating technologies
to increase the control range of operating temperature

Single Zone Heater

Dual Zone Heater



RF Electrode Technology

RF Electrode design and manufacturing technologies
for optimal plasma generation and chucking

- **RF Electrode: Molybdenum Mesh**

Monopolar	Bipolar	Multipolar
1 Electrical Pole	2 Electrical Poles	Over 3 Electrical Poles