Harrick Plasma Chamber PDC-32G

Plasma Chamber

Tool Type: Surface treatment
Location: Elings 3430
Description: Plasma chamber
Manufacturer: Harrick

About

The Harrick PDC-32G is a compact table top plasma cleaner for nanoscale surface cleaning and activation of small samples. The attached PlasmaFlo gas mixer allows for quantitative control of up to two different process gasses and monitoring of the vacuumed pressure within the chamber.

This tool is plumbed for nitrogen plasma only, which still works very well for PDMS-glass bonding and PDMS-PDMS bonding. If you require oxygen plasma, please consider using the plasma chamber in the Nanostructures Cleanroom Facility instead.

Safety Concerns

The plasma chamber uses **RF radiation**. If you have a pacemaker or similar device, please consult your doctor before using.

Training Documentation

Plasma Cleaner SOP

Recipes

Brian Dincau found that the following recipe works well for bonding PDMS to PDMS or Glass:

- Power - High
- Pressure - 440 to 460 mTorr
- Duration - 30s
- Nitrogen flow - adjust as needed to maintain desired pressure.
- Mate surfaces immediately after treatment, then transfer to an oven at 115C for 20 minutes.

Detailed Specifications

- 3 stage adjustable RF power settings
- Max RF power: 18W
- Chamber size: 3“ diameter x 6.5” Pyrex chamber
- Valve threads: 1/8 NPT

Reference Documentation

harrick-plasma-product-information-web.pdf

plasma_cleaner_manual_32g.pdf

ufl_harrick_plasma_operating_instructions.pdf

harrick-plasma-cleaner-users-manual.pdf
