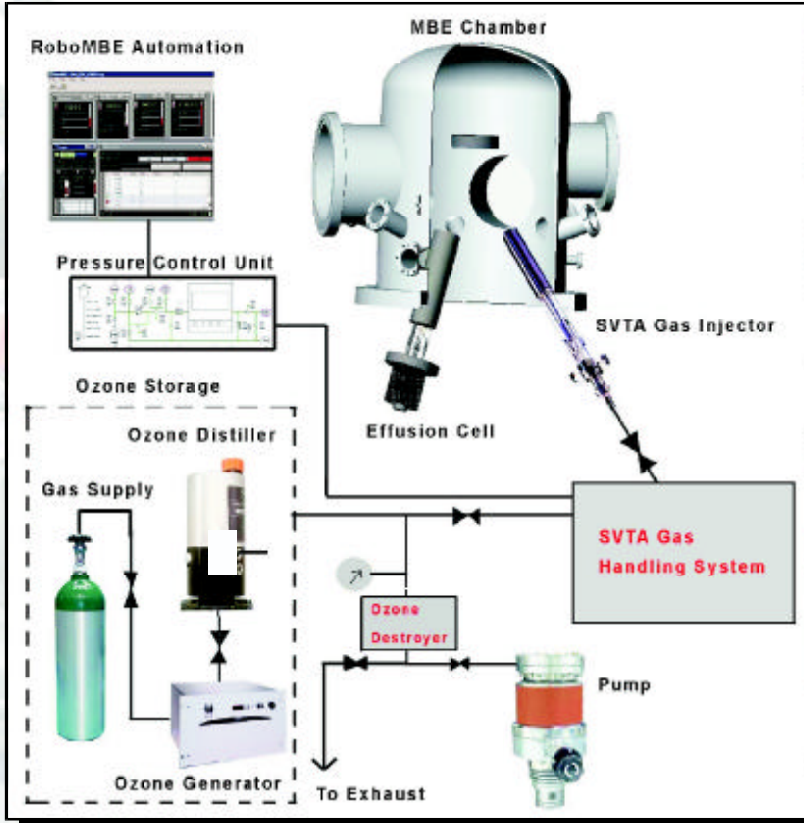


SVTA Ozone Gas Delivery System



SVTA-OZ Delivery System for a MBE System

Product Description

The SVTA-OZ ozone gas delivery system is designed to provide ultra pure fluxes of ozone as a powerful oxidant in MBE and other vacuum deposition processes. It consists of three modules that are used for ozone generation, advanced gas handling and for injection.

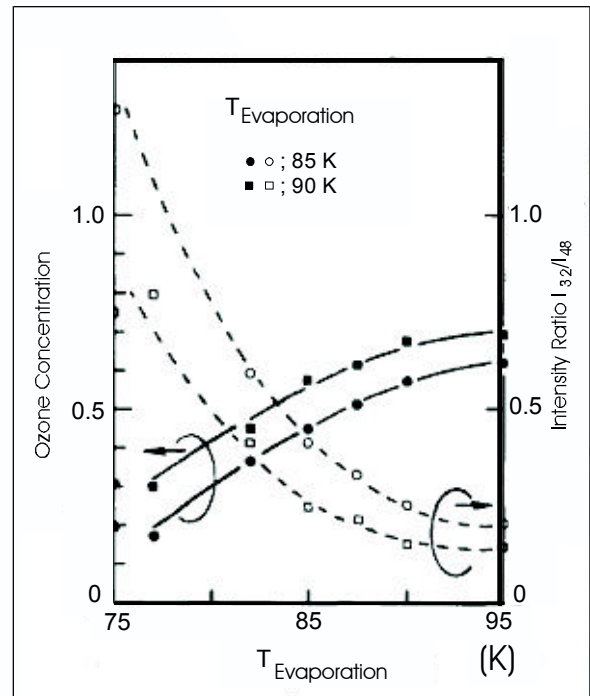
Ozone delivery is a two step process:

1. In charging mode oxygen molecules are fed into an ozone generator and ozone is stored in a temperature regulated trap. After distillation all remaining oxygen molecules are pumped into an exhaust system.
2. In deposition mode the trap is depleted using a computer controlled warm-up process and an automated gas delivery system for ease of operation. The gas is injected using SVTA's water cooled ozone injector source. The materials of all wetted parts are chosen to minimize recombination of produced ozone for high efficiencies

The system is retrofittable to any MBE system.

Features

- Fully Enclosed Gas Cabinet with Gas Monitor for Leak Detection
- Precise Capacitance Based Flow Regulation
- Abrupt Run/Vent Operation Using Short Gas Lines to the Source Injector
- RoboMBE™ Computer Controlled Remote Operation



Concentration of ozone and peak height of diatomic oxygen and ozone (I_{32}/I_{48}) in the produced vapor evaporated at 85 K and 90 K for different liquefaction temperatures

Technical Specifications

- Utility Ratio.....1 hr charge/10 hr operation
- Ozone Flux..... 3×10^{16} molecules/cm²s
- FlangeMount (CFF).....2.75", 4.50" or 6.00"
- Computer Requirement.....Windows 95 or Higher
- Cooling.....Liquid N₂

*Operating Pressure at 1.0×10^{-5} torr

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