

ABSTRACT OF THE DISCLOSURE

Embodiments disclosed herein include an abatement system for abating compounds produced in semiconductor processes. The abatement system includes an exhaust cooling apparatus located downstream of a plasma source. The exhaust cooling apparatus includes at least one cooling plate a device for introducing turbulence to the exhaust flowing within the exhaust cooling apparatus. The device may be a plurality of fins, a cylinder with a curved top portion, or a diffuser with angled blades. The turbulent flow of the exhaust within the exhaust cooling apparatus causes particles to drop out of the exhaust, minimizing particles forming in equipment downstream of the exhaust cooling apparatus.

[Figure 1]

