

TRAP-TYPE AIR PURIFICATION SYSTEM

ABSTRACT OF THE DISCLOSURE

An air purification system which is well-suited to removing particles from outside air as the air flows into a cleanroom used in the fabrication of semiconductor integrated circuits. A housing provides at least one spray nozzle for spraying fine mist water droplets. In use, the water droplets capture the airborne particles in the air flowing through the housing and adhere to the water droplet target. The water droplets coalesce and form larger droplets which adhere to the surface of the water droplet target and ultimately collect in a drain pan. The low-density water droplet target prevents large pressure differentials from forming in the housing, which pressure differentials may otherwise cause re-vaporization of the water droplets from the target and re-flow of the particles in the flowing air.

FIG. 3