

DEVICE FOR TOC REDUCTION IN
ULTRAPURE WATER

Abstract of the Disclosure

For TOC reduction by UV radiation, in the production of ultrapure water, a cylindrical UV reactor surrounded by a quartz sleeve radiates through an annular water flow channel no more than 10 mm to 15 mm wide. This causes the water to circulate in the annular zone highly exposed to the 185 nm wavelength of the UV radiation, as well as all other wavelengths under 200 nm. For optimization of mixing of the water in the zone, baffles or perturbators are provided at a series of locations to effect mixing of different layers of liquid thus promoting radial movement of the water around the quartz tube.

Figure 1