

ABSTRACT

METHOD AND SYSTEM FOR PROVIDING ULTRAPURE WATER

A method and system of providing ultrapure water for semiconductor fabrication operations is provided. The water is treated by utilizing a free radical scavenging system and a free radical removal system. The free radical scavenging system can utilize actinic radiation with a free radical precursor compound, such as ammonium persulfate. The free radical removal system can comprise use of a reducing agent. The ultrapure water may be further treated by utilizing ion exchange media and degasification apparatus. A control system can be utilized to regulate addition of the precursor compound, the intensity of the actinic radiation, and addition of the reducing agent to the water.

[Figure 2]