

Particle Scouting in UPW

Sameer I. Madanshetty

Uncopiers, Inc.

Abstract

High intensity sound appears to interact with water in interesting ways. In one instance it is capable of revealing the presence of ultrafine particles that might be present in ultrapure water. This presentation will describe recent research being conducted in context of acoustic monitoring of UPW for particulate purity. First, relevant acoustics concepts will be briefly introduced. This will be followed by a discussion of the acoustic interactions with in-liquid microparticles that enable particle detection via a pulse-echo method. We will then focus on the experimental results, and a discussion of the limits and applicability of the method in practical situations.