METHOD FOR DETERMINING PARTICLE CONCENTRATION IN A FLUID AND SYSTEM THEREFOR

ABSTRACT

Systems and methods for determining particle concentration in a fluid are provided. The system includes an optically transparent sample holder configured to hold a diluted fluid containing particles and a light beam source configured to project a light beam on a first side of the sample holder. The system also includes a detector configured to detect the light beam scattered by the particles at a position facing a second side of the sample holder formed at an angle to the first side. An intensity of the scattered light beam is used to determine the particle concentration in the fluid. A second particle concentration in the fluid can be determined by determining a weight of the first particles from the first particle concentration and using a weighing scale to weigh the sample holder with the diluted fluid to determine the total weight, the total weight and the weight of the first particles being used to determine a weight of the second particles to use for determining the second particle concentration.

FIG. 3.