

Measuring Nanoparticle Size Distribution in a Fluid Using an Interactive Force Apparatus

Presenting Author: Gjergj Dodbiba

Co-Authors: Akira Otsuki, Toyohisa Fujita

The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan

dodbiba@g.ecc.u-tokyo.ac.jp

The paper explains how the Interactive Force Apparatus (IFA) can be employed to measure the particle size distribution of nanoparticles in a fluid, regardless of their concentration. The IFA technique is then compared against conventional techniques such as Transmission Electron Microscopy (TEM) and Scanning Electron Microscopy (SEM) to validate the results.

The study's results demonstrated that IFA could effectively measure the size distribution of various nanoparticles, with results consistent with those obtained via TEM and SEM. The findings suggest that IFA could significantly enhance the accuracy and applicability of particle size distribution measurements in industrial processes, particularly where high concentration and non-transparent solutions are involved. This technique can potentially improve processes related to the water purification, mineral processing, and manufacturing of new materials, where precise particle size measurement is critical.

References

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Figures

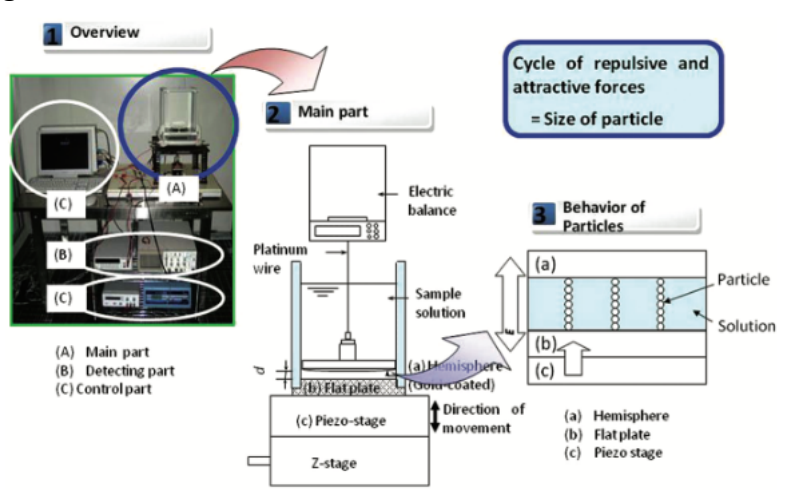


Figure 1: Schematic diagram of the interactive force apparatus (IFA).