

## **Particle surface modification and characterization**

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### **Abstract**

Particle coating to alter the surface properties of powders is very important in many industries. Dry particle coating with silica and wet coating with silane was used to modify the surface characteristics of aluminum powders. The results of the surface modification were quantified\qualified by measuring the flowability of the powders using the Sevilla Powder Tester (SPT) and surface topography using the Atomic Force Microscope (AFM). Particle morphology was determined by SEM images, which show the presence of the silica particles on the surface of the Aluminum particles. Particles size distribution of the powders indicates that almost all of the powders have similar size distribution.

### **Curriculum vitae**

Currently, a Ph.D student in the department of Chemical Engineering at NJIT. Earned a Master degree in Pharmaceutical Engineering in 2006 at NJIT, and a Bachelors degree in Chemical Engineering in 1998 at The University of Science and Technology, Ghana. From 1998-2000, worked as a facilitator with G.A.S Development Associates (an NGO) in the provision of water and sanitation facilities in rural ghana, and Taught at Accra Polytechnic Institute. 2000-2002, was employed by Vlisco Ghana Limited, a textile manufacturing company. 2003-2004, Taught and tutored Mathematics and Chemistry at Essex County College.

Since joining the Ph.D program at NJIT; earned two accepted publications and one conference paper.