

Abstract Submitted
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Experimental studies of the streaming flow due to the adsorption of particles at a liquid surface¹ PUSHPENDRA SINGH, NAGA MUSUNURI, IAN FISCHER, New Jersey Institute of Technology — The particle image velocimetry (PIV) technique is used to study the streaming flow that is induced when particles are adsorbed at a liquid surface. The flow develops within a fraction of second after the adsorption of the particle and persists for several seconds. The fluid directly below the particle rises upward, and near the surface, it moves away from the particle. The flow causes powders sprinkled on a liquid surface to disperse on the surface. The flow strength, and the volume over which it extends, decreases with decreasing particle size. The streaming flow induced by the adsorption of two or more particles is a combination of the flows which they induce individually.

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Pushpendra Singh
New Jersey Institute of Technology

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