Blending and mixing of powders, particularly for pharmaceutical purposes, is a much bigger science than might be expected. There are many factors to consider and forces to take into account. There are a couple ways of determining when powders will be mixed as much as possible, such as simulations that can be run and studies that can be analyzed. However, it is quickly discovered that almost no two situations are the same, and small changes in the powders can lead to different prevailing forces. It is thus sometimes best to take a physics approach, where applying things such as the diffusion equation can give good results.

Friday, February 10, 2017 - 3:10 pm

Senior Exercise Talks in Physics

Franklin Miller, Jr. Lecture Hall

Hayes 109

Neutrinos are the second most abundant particle in the universe, and yet they are extremely difficult to detect. Along with other factors, this presents problems for the experiments that will investigate the strange process of Neutrino Oscillations. In this talk, I will present the theoretical basis for this phenomenon, and also cover the detection methods used by the Deep Underground Neutrino Experiment to analyze these oscillations.

Measuring Neutrino Oscillations With The Deep Underground Neutrino Experiment