

Particle Characterization: Module 3, Lecture 8

1. Define 2 dimensionless parameters that affect light scattering in suspensions.
2. How are Rayleigh and Mie scattering regimes differentiated?
3. How does scattering intensity (I) depend on particle diameter and incident wavelength in the Rayleigh and Mie regimes?
4. Sketch I_1 , I_2 , I versus scattering angle in the Rayleigh regime.
5. Why is in-situ calibration recommended in the Mie range?
6. What is the typical size distribution of particles in outdoor & indoor environments?
7. How do industrial emissions help with rainfall?
8. What is the principle of operation of a condensation nuclei counter (CNC)?
9. Can water be used as condensing fluid in CNC of hydrophobic particles?
10. How is indoor particle size distribution affected by use of filters?