

## **Particle Characterization: Module 9, Lecture 24**

1. Write an expression for total mass flux of particles in terms of particle mass fraction.
2. Define and illustrate phoretic force with an example.
3. Define dimensionless number for particle mass flux in diffusion-dominated case.
4. Define dimensionless number for particle mass flux in convection-dominated case.
5. How do these numbers related to capture efficiency?
6. How are analogy conditions useful in estimating particle mass fluxes?
7. Identify 2 analogy-breaking phenomena.
8. What are their relative magnitudes in small & large particle size ranges?
9. Sketch how fouling happens in a coal-fired power plant.
10. Write an expression for ash deposition rate.