Particle Characterization: Module 3, Lecture 11

1. Give one example where differential particle counts are important.

2. Give one example where cumulative particle counts are important.

3. How are mean diameters calculated in continuous function representations of PSD?

4. Give 2 examples of processes where highly-concentrated particles need to be characterized.

5. Why is it not advisable to dilute concentrated samples for size measurement?

6. What is the principle behind acoustic attenuation spectroscopy (AAS)?

7. Sketch relative acoustic attenuation coefficient versus particle size for a single frequency.

8. How do you "deconvolute" particle size data from acoustic attenuation data for mono- & poly-dispersed samples?

9. How can you predict the acoustic attenuation spectrum from first principles?

10. How would you correlate AAS and light-scattering based size measurements?