

Particle Characterization: Module 12, Lecture 34

1. How are particle filters classified? Give examples.
2. Identify active filtration mechanisms in these filters.
3. Why does filtration efficiency of a fibrous filter increase with time?
4. How is filter efficiency related to single-fiber collection efficiency (η_s)?
5. Why is filtration of liquids more difficult than gases?
6. Sketch dependence of η_s on particle size.
7. Define MPPS. How is it used in rating of filters?
8. Compare HEPA & ULPA filters.
9. Define Peclet number and interception parameters for filtration. How do they affect η_s ?
10. List 3 parameters that affect specific filter surface area, and 3 that affect pressure drop.