Part 1: DustTrak

What units does the DustTrak use to report the amount of aerosol in the air?

How could you convert these units to number per cubic centimeter and what assumptions would you have to make?

What is an impactor and how does one work?

What purpose does the impactor play in the operation of the DustTrak?

Part 2: Aerosol Generation

What are the two main types of particle generation methods used in this lab?

What types of particles are better suited for each of these generation methods?

What is saltation? Which generation method better simulates saltation? Explain.

Part 3: SMPS (_____)

What are the two main components of an SMPS system?

How does an SMPS system differentiate particles

What is meant by mobility-equivalent diameter?

How is the number concentration of particles determined in the SMPS system?

Part 4: OPS(_____)

What is the minimum countable size on the OPS?

Is the OPS more similar to a DustTrak or to a SMPS in the way it sizes and counts particles?

Describe applications in which you would find 1) a DustTrak 2) an SMPS and 3) an OPS to be the most appropriate way to size and/or count particles.

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