PELCO® All-Glass Nebulizer
Product No. 14601, 14606

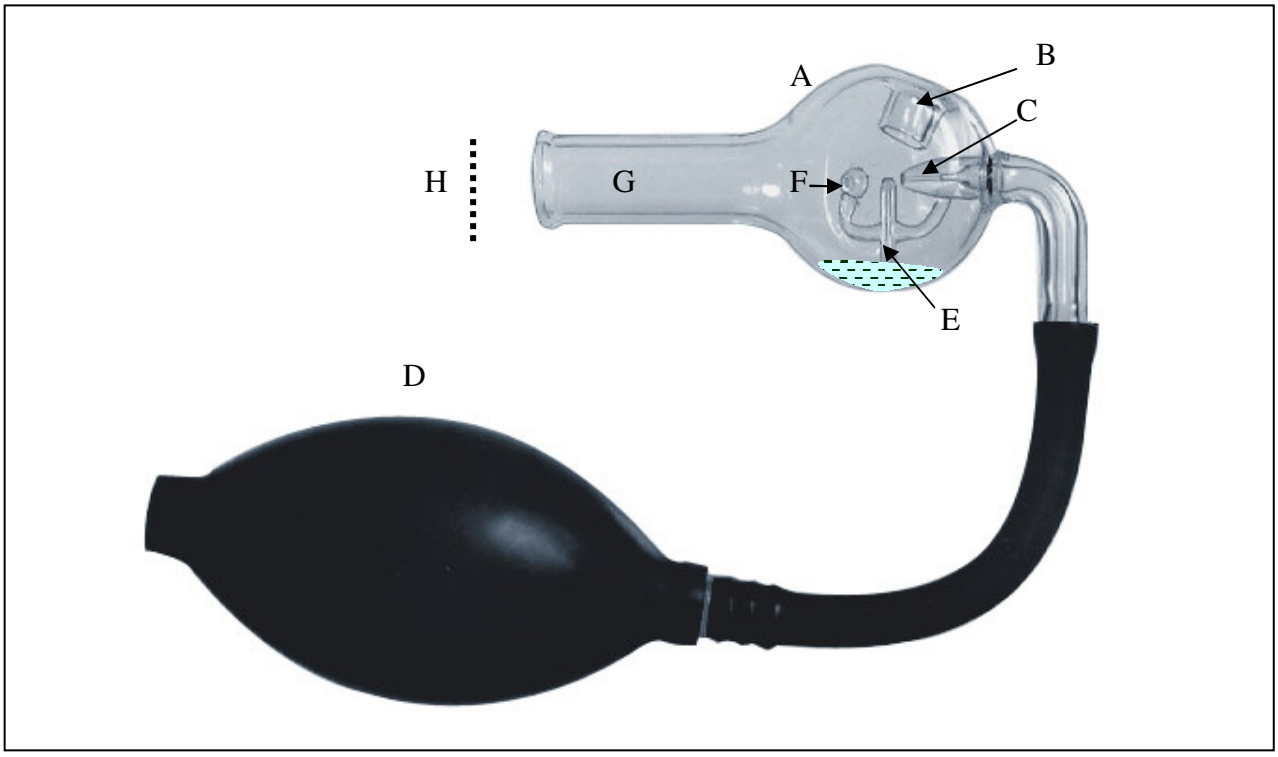

Figure 1

Atomizes very small aqueous volumes to provide distribution of suspensions, particulates, etc., for detailed examination. In EM work a grid is held vertically before the Nebulizer outlet and a flexible bulb is squeezed to create a fine spray. The all-glass design permits proper cleaning and sterilization and so is suitable for biological work.

NEBULIZER SPRAYING TECHNIQUE

Small droplet patterns can be deposited directly on the supporting films by use of the Nebulizer. A schematic of the Nebulizer is shown in Figure 1. Suspensions containing the particles to be sprayed are inserted from a small Pasteur pipette into the aperture at B. Sufficient liquid (0.1-0.2 ml) should be inserted to ensure that the level reached in chamber A is above the hollow tube E during spraying. Air is passed through the jet tube C by pressing the hand bulb D and the liquid is drawn through the hollow tube E to the diffuser head F. Very small droplets pass through the outlet tube G and are deposited on to the specimen supports at H. The specimen grids must be supported in a vertical position facing the outlet tube. Under normal spraying conditions the aperture, B, is sealed by the insertion of a rubber stopper.[1]

Droplets of about 5 to 20 microns in diameter can be sprayed form the PELCO® All-Glass Nebulizer but spreading of the droplets on the specimen supports will depend on a variety of factors including surface

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tension and charge effects, concentration of particles in a given volume, presence of monolayer contaminants on the substrate surface, etc.[1]

CARE AND CLEANING OF ALL-GLASS NEBULIZER

Solutions should not be allowed to evaporate to dryness in the nebulizer. After use, plug up the openings with corks.

To clean, pour out any remaining sample solution and aspirate with the rubber bulb to completely empty the capillary feed tube. Rinse out the unit thoroughly with hot water (or a detergent solution), and aspirate again to empty the capillary feed tube. Repeat as often as necessary to insure complete flushing with clean water. Usually three or four times is adequate. The final flushes should be done with D.I. water followed by Alcohol. After the final aspiration, dry the nebulizer upside down so that water/alcohol will not siphon up into the capillary feed tube.

With infectious samples the nebulizer may be soaked in a strong disinfectant (Amphyl or Cidex, etc.) before flushing and rinsing as described above.

Product No. 14601 PELCO® All-Glass Nebulizer, with Flexible Bulb
Product No. 14606 PELCO® All-Glass Nebulizer only
Product No. 14609 Flexible Bulb

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[1] Horne RW, 1965. The Examination of Small Particles. In: Techniques For Electron Microscopy, Kay Desmond, ed. 2 ed., Blackwell Scientific Publications Ltd., Oxford, UK, pp 315-316.

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