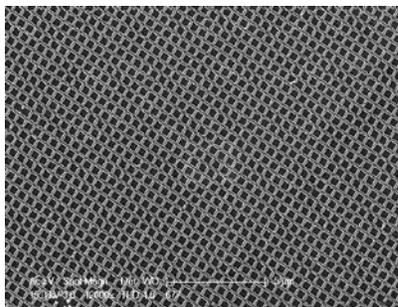


500NM SEM MAGNIFICATION CALIBRATION DIFFRACTION GRATING REPLICA PRODUCT NO. 674, 674-A TO R

This specimen is a replica of a 2,000 lines/mm cross line diffraction grating. Replica is mounted on a 400 mesh copper TEM grid with a diameter of 3mm. When imaging the specimen, the line spacing is 500nm +/- 1%; and the pattern will be visible at approximately 2,000x. At this magnification the lines of the pattern will be 1mm apart.



To calculate the electron microscope magnification using the pattern of the diffraction grating replica:

Take the measurement, in millimeters of as many squares and lines of the replica pattern as possible. The line is a trench type groove. Always measure the same sides of the lines. Apply the following formula:

$$\text{Magnification} = A \times 2000/B$$

A is distance in mm between limiting lines.

B is number of spaces between limiting lines.

(Alternatively, use the PELCO[®] Magnification Calibration Calculator, Prod. No. 253)

Care of Grating Replica Specimen

When not in use the replica should be kept in a dry and dust-free container. The replica surface may be damaged if touched. Never try to clean it. Dust can be removed using a rubber bulb attached to a glass pipette. Use a gentle stream of air.

674-A-R TN V2 0414

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