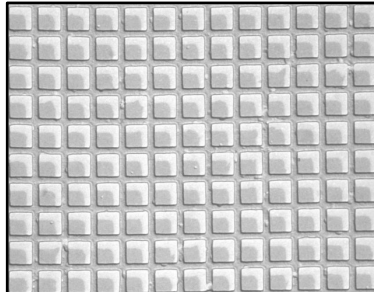


MAGNIFICATION CALIBRATION 500NM DIFFRACTION GRATING REPLICA

Product No. 677

This specimen is a replica of a 2,000 lines/mm cross line diffraction grating. When imaging the specimen, it should be kept in mind that the line spacing is 500nm ±1% and the pattern will not be visible until the imaging system is set to resolve that level of detail - around x2,500.



To calculate electron microscope magnification:

Take the measurement, in millimeters, between the limiting lines of as many squares of the replica pattern as possible. Apply the following formula:

$$\text{Magnification} = A \times 2,000/B$$

Where “A” represents distance in mm between limiting lines of first and last square measured, and

“B” represents number of spaces between limiting lines of first and last square measured.

Alternatively, use the online PELCO® Magnification Calibration Calculator by scanning the QR code below:



CARE OF THE SPECIMEN:

When not in use, the replica should be kept in the vial. The replica surface may be damaged if touched. **Never try to clean it.** Care must be taken to avoid bending the grid as distortion may cause the replica film to fracture.

When viewing in the TEM, begin at low magnification with a low illumination level. Increase the illumination a little beyond comfortable viewing level, then reduce it. This helps stabilize the specimen. Before moving the specimen to view another grid square, reduce the illumination and magnification to starting levels again.

NOTE: Artifacts such as furrows or other distortions are on the gold surface of the original master grating and do not affect the accuracy of the line spacing.

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