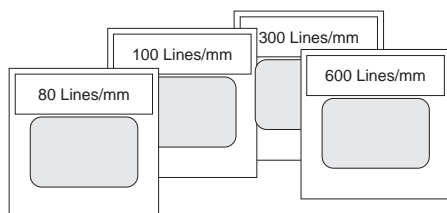


**Instruction Sheet  
for the PASCO  
Model SE-9361**

012-03452B  
05/91  
\$1.00

**DIFFRACTION GRATING  
(Set of Four)**



**Introduction**

The PASCO Diffraction Gratings (set of four) have line spacings of 80, 100, 300, and 600 lines/mm. They are excellent for quantitatively studying the relation between line spacing, angle of diffraction, and wavelength. Each grating is covered with glass on both sides.

**Suggested Uses**

1. Look at various light sources through the gratings and examine the spectra. Which colors of light are diffracted to the greatest angles? How does the shape and orientation of the light source effect the pattern?
2. Using a line-filament light source, compare the diffraction patterns produced by the gratings. How does the angle of diffraction vary with the line spacing of the grating?
3. Examine the spectra of various spectral light sources. Show your students how an element can be "fingerprinted", allowing scientists to analyze the composition of unknown materials, and even to determine the composition of stars.

**IMPORTANT:** To avoid scratching or soiling the surfaces of the gratings, hold the slide only by its edges.



**PASCO scientific**

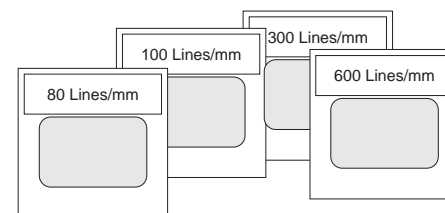
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