

60. The wavelengths satisfy $m\lambda = 2d \sin \theta = 2(275 \text{ pm})(\sin 45^\circ) = 389 \text{ pm}$. In the range of wavelengths given, the allowed values of m are $m = 3, 4$, with the corresponding wavelengths being $389 \text{ pm}/3 = 130 \text{ pm}$ and $389 \text{ pm}/4 = 97.2 \text{ pm}$, respectively.