

$$k_{2,n,x} = \alpha_n$$

$$k_2 \sin \theta_{2,n} = \alpha_n$$

$$k_2 \sin \theta_{2,n} = \alpha_0 + \frac{2\pi n}{d}$$

$$k_2 \sin \theta_{2,n} = k_2 \sin \theta_2 + \frac{2\pi n}{d}$$

$$\sin \theta_{2,n} - \sin \theta_2 = \frac{2\pi n}{d k_2}$$

$$\sin \theta_{2,n} - \sin \theta_2 = \frac{n}{d} \frac{2\pi c}{\omega v_2}$$

$$\sin \theta_{2,n} - \sin \theta_2 = \frac{n\lambda_0}{d v_2}$$

$$\sin \theta_{2,n} - \sin \theta_2 = \frac{n\lambda_2}{d}$$