

# 1) Scheda di lavoro con il reticolo di diffrazione 1000 linee/mm

nome: \_\_\_\_\_ data: \_\_\_\_\_

$$\sin \theta = m \frac{\lambda}{d} \quad m = 1, 2, 3, \dots$$

Reticolo di diffrazione con 1000 linee/mm  $d = \frac{1}{1000 \frac{\text{linee}}{\text{mm}}} = \frac{\text{mm}}{1000 \text{linee}} = \frac{10^{-3} \text{m}}{10^3} = \dots\dots\dots$

Luce laser colore: .....  $\lambda = \dots\dots\dots \text{nm}$

m=1	$\theta_1 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 1 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_1 =$
m=2	$\theta_2 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 2 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_2 =$
m=3	$\theta_3 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 3 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_3 =$
m=4	$\theta_4 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 4 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_4 =$

Luce laser colore: .....  $\lambda = \dots\dots\dots \text{nm}$

m=1	$\theta_1 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 1 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_1 =$
m=2	$\theta_2 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 2 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_2 =$
m=3	$\theta_3 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 3 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_3 =$
m=4	$\theta_4 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 4 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_4 =$

Luce laser colore: .....  $\lambda = \dots\dots\dots \text{nm}$

m=1	$\theta_1 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 1 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_1 =$
m=2	$\theta_2 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 2 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_2 =$
m=3	$\theta_3 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 3 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_3 =$
m=4	$\theta_4 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 4 \frac{\dots\dots\dots \cdot 10^{-9} \text{m}}{\dots\dots\dots \text{m}} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_4 =$

## 2) Scheda di lavoro con il reticolo di diffrazione 500 linee/mm

nome: \_\_\_\_\_ data: \_\_\_\_\_

$$\sin \theta = m \frac{\lambda}{d} \quad m = 1, 2, 3, \dots$$

Reticolo di diffrazione con 500 linee/mm  $d = \frac{1}{500 \frac{\text{linee}}{\text{mm}}} = \frac{\text{mm}}{500 \text{ linee}} = \frac{10^{-3} m}{5 \cdot 10^2} = \dots\dots\dots$

Luce laser colore: .....  $\lambda = \dots\dots\dots nm$

m=1	$\theta_1 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 1 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_1 =$
m=2	$\theta_2 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 2 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_2 =$
m=3	$\theta_3 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 3 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_3 =$
m=4	$\theta_4 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 4 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_4 =$

Luce laser colore: .....  $\lambda = \dots\dots\dots nm$

m=1	$\theta_1 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 1 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_1 =$
m=2	$\theta_2 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 2 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_2 =$
m=3	$\theta_3 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 3 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_3 =$
m=4	$\theta_4 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 4 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_4 =$

Luce laser colore: .....  $\lambda = \dots\dots\dots nm$

m=1	$\theta_1 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 1 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_1 =$
m=2	$\theta_2 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 2 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_2 =$
m=3	$\theta_3 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 3 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_3 =$
m=4	$\theta_4 = \sin^{-1} \left( m \frac{\lambda}{d} \right) = \sin^{-1} \left( 4 \frac{\dots\dots\dots \cdot 10^{-9} m}{\dots\dots\dots m} \right) = \sin^{-1} (\dots\dots\dots)$	$\theta_4 =$