

Reciprocal Lattice Density Tutorial Exercise

Exercise

The sampling matrix of the reciprocal lattice Λ^* is $\mathbf{U} = 2\pi(\mathbf{V}^T)^{-1}$. Show that $D(\Lambda^*) = \frac{|\det(\mathbf{V})|}{(2\pi)^3}$, where $D(\Lambda^*)$ the sampling density of the reciprocal lattice Λ^* .