

1. How is looks like $3S_4^1$ transformation in T_d group. Why are there 3.
2. Write the transformation matrix for C_3^1 and C_3^2 elements of C_3 group.
3. Define the basis vectors of primitive unit cell for crystal CuI. What Bravais lattice is in the basis of this lattice? Define the cartesian coordinates of basis vectors and all atoms inside of primitive unit cell. Define the number of space group. Calculate the volume of primitive unit cell.