

Figure 1.



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***O­*h** | ***E*** | **8*C*3** | **6*C*2** | **6*C*4** | **3*C*2’** | ***i*** | **6*S*4** | **8*S*6** | **3σh** | **3σd** |  |  |
| A1g | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | x2+y2+z2 |
| A2g | 1 | 1 | -1 | -1 | 1 | 1 | -1 | 1 | 1 | -1 |  |  |
| Eg | 2 | -1 | 0 | 0 | 2 | 2 | 0 | -1 | 2 | 0 |  | (2z2-x2-y2, x2-y2) |
| T1g | 3 | 0 | -1 | 1 | -1 | 3 | 1 | 0 | -1 | -1 | (Rx, Ry, Rz) |  |
| T2g | 3 | 0 | 1 | -1 | -1 | 3 | -1 | 0 | -1 | 1 |  | (xz, yz, xy) |
| A1u | 1 | 1 | 1 | 1 | 1 | -1 | -1 | -1 | -1 | -1 |  |  |
| A2u | 1 | 1 | -1 | -1 | 1 | -1 | 1 | -1 | -1 | 1 |  |  |
| Eu | 2 | -1 | 0 | 0 | 2 | -2 | 0 | 1 | -2 | 0 |  |  |
| T1u | 3 | 0 | -1 | 1 | -1 | -3 | -1 | 0 | 1 | 1 | (x, y, z) |  |
| T2u | 3 | 0 | 1 | -1 | -1 | -3 | 1 | 0 | 1 | -1 |  |  |
| Γred | 6 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 4 | 4 |  |  |

**Γred =** **A1g + Eg + T1u**

Figure 2.



Figure 3.



Figure 4.



Figure 5.



Figure 6.