

The group multiplication table:

	E	C_3	C_3^2	σ_0	σ_1	σ_2
E	E	C_3	C_3^2	σ_0	σ_1	σ_2
C_3	C_3	C_3^2	E	σ_2	σ_0	σ_1
C_3^2	C_3^2	E	C_3	σ_1	σ_2	σ_0
σ_0	σ_0	σ_1	σ_2	E	C_3	C_3^2
σ_1	σ_1	σ_2	σ_0	C_3^2	E	C_3
σ_2	σ_2	σ_0	σ_1	C_3	C_3^2	E

Classes of conjugated elements:

$$\{ E \}, \{ C_3 \ C_3^2 \}, \{ \sigma_0 \ \sigma_1 \ \sigma_2 \}$$

Character table:

	E	$2C_3$	$3\sigma_v$
A_1	1	1	1
$C_{3v} \ A_2$	1	1	-1
E	2	-1	0
A_1	1	1	1
A_2	1	1	-1
$T_d \ E$	2	-1	0
T_1	3	0	-1
T_2	3	0	1

$$A_1(T_d) = A_1(C_{3v})$$

$$A_2(T_d) = A_2(C_{3v})$$

$$E(T_d) = E(C_{3v})$$

$$T_1(T_d) = E(C_{3v}) + A_2(C_{3v})$$

$$T_2(T_d) = E(C_{3v}) + A_1(C_{3v})$$

		E	$2C_3$	$3\sigma_v$	
C_{3v}	{	A_1	1	1	1
		A_2	1	1	-1
		E	2	-1	0
T_d	{	A_1	1	1	1
		A_2	1	1	-1
		E	2	-1	0
		T_1	3	0	-1
		T_2	3	0	1