

PG No. 5 C_{2h} $2/m$ (b-axis setting) [monoclinic]

* generator : $2_{010}, -1$

* conjugacy class

[1] : 1
 $[2_{010}]$: 2_{010}
 $[-1]$: -1
 $[m_{010}]$: m_{010}

* symmetry operation

Table 1: Symmetry operations for 3d polar vector.

No.	tag	matrix (polar)	det
1	1	$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$	1
2	2_{010}	$\begin{bmatrix} -1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & -1 \end{bmatrix}$	1
3	-1	$\begin{bmatrix} -1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & -1 \end{bmatrix}$	-1
4	m_{010}	$\begin{bmatrix} 1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$	-1