

PG No. 19 C_{3v} $3m$ (3m1 setting) [trigonal]

* character table

C_{3v}	1(1)	$3_{001}^+(2)$	$m_{100}(3)$
A_1	1	1	1
A_2	1	1	-1
E	2	-1	0

* polar \leftrightarrow axial conversion

$$A_1 (A_2) \quad A_2 (A_1) \quad E (E)$$

* symmetric product

	A_1	A_2	E
A_1	A_1	A_2	E
A_2		A_1	E
E			$A_1 + E$

* anti-symmetric product

A_1	A_2	E
-	-	A_2