* character table

D_2	$1(1)$	$2_{001}(1)$	$2_{010}(1)$	$2_{100}(1)$
A	1	1	1	1
B_1	1	1	-1	-1
B_2	1	-1	1	-1
B_3	1	-1	-1	1

* polar ↔ axial conversion

$A\ (A)$ $B_3\ (B_3)$ $B_2\ (B_2)$ $B_1\ (B_1)$

* symmetric product

	A	B_1	B_2	B_3
A	A	B_1	B_2	B_3
B_1		A	B_3	B_2
B_2			A	B_1
B_3				A

* anti-symmetric product

A	B_1	B_2	B_3
$-$	$-$	$-$	$-$