PG No. 39　$S_4(c)$　$\bar{4}$　[tetragonal]

* character table

$S_4(c)$	$1(1)$	$2_{001}(1)$	$-4^{+}_{001}(1)$	$-4^{-}_{001}(1)$
A	1	1	1	1
B	1	1	-1	-1
$E^{(a)}$	1	-1	i	$-i$
$E^{(b)}$	1	-1	$-i$	i

* polar $\leftrightarrow$ axial conversion

$A\ (B)$　$B\ (A)$　$E^{(b)}\ (E^{(a)})$　$E^{(a)}\ (E^{(b)})$

* symmetric product

	A	B	$E^{(a)}$	$E^{(b)}$
A	A	B	$E^{(a)}$	$E^{(b)}$
B		A	$E^{(b)}$	$E^{(a)}$
$E^{(a)}$			B	A
$E^{(b)}$				B

* anti-symmetric product

A	B	$E^{(a)}$	$E^{(b)}$
$-$	$-$	$-$	$-$