

Σ of type A5

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(YES)
$\{1\}$	A_1	CHAMBER	(FREE)	(YES)
$\{2\}$	A_1	CHAMBER	(FREE)	(YES)
$\{3\}$	A_1	CHAMBER	(FREE)	(YES)
$\{4\}$	A_1	CHAMBER	(FREE)	(YES)
$\{5\}$	A_1	CHAMBER	(FREE)	(YES)
$\{1, 2\}$	A_2	CHAMBER	(FREE)	(YES)
$\{2, 3\}$	A_2	CHAMBER	(FREE)	(YES)
$\{3, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{4, 5\}$	A_2	CHAMBER	(FREE)	(YES)
$\{1, 2, 3\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 4\}$	A_3	CHAMBER	(FREE)	(YES)
$\{3, 4, 5\}$	A_3	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4\}$	A_4	CHAMBER	(FREE)	(YES)
$\{2, 3, 4, 5\}$	A_4	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4, 5\}$	A_5	CHAMBER	(FREE)	(YES)
$\{1, 3\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{3, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 2, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 4, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 3, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 4, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 3, 5\}$	$A_1 \times A_3$	no	no	(no)
$\{1, 3, 4, 5\}$	$A_1 \times A_3$	no	no	(no)
$\{1, 2, 4, 5\}$	$A_2 \times A_2$	no	FREE	no
$\{1, 3, 5\}$	$A_1 \times A_1 \times A_1$	no	no	(no)

Σ of type B5

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(YES)
$\{1\}$	A_1	CHAMBER	(FREE)	(YES)
$\{2\}$	A_1	CHAMBER	(FREE)	(YES)
$\{3\}$	A_1	CHAMBER	(FREE)	(YES)
$\{4\}$	A_1	CHAMBER	(FREE)	(YES)
$\{5\}$	A_1	CHAMBER	(FREE)	(YES)
$\{1, 2\}$	A_2	CHAMBER	(FREE)	(YES)
$\{2, 3\}$	A_2	CHAMBER	(FREE)	(YES)
$\{3, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{1, 2, 3\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 4\}$	A_3	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4\}$	A_4	CHAMBER	(FREE)	(YES)
$\{4, 5\}$	B_2	CHAMBER	(FREE)	(YES)
$\{3, 4, 5\}$	B_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 4, 5\}$	B_4	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4, 5\}$	B_5	CHAMBER	(FREE)	(YES)
$\{1, 3\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 5\}$	$A_1 \times A_1$	no	FREE	YES
$\{2, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 5\}$	$A_1 \times A_1$	no	FREE	YES
$\{3, 5\}$	$A_1 \times A_1$	no	FREE	YES
$\{1, 2, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 5\}$	$A_1 \times A_2$	no	FREE	YES
$\{1, 3, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 3, 5\}$	$A_1 \times A_2$	no	FREE	YES
$\{1, 2, 3, 5\}$	$A_1 \times A_3$	no	no	(YES)
$\{1, 4, 5\}$	$A_1 \times B_2$	no	FREE	no
$\{2, 4, 5\}$	$A_1 \times B_2$	no	FREE	no
$\{1, 3, 4, 5\}$	$A_1 \times B_3$	no	no	(no)
$\{1, 2, 4, 5\}$	$A_2 \times B_2$	no	FREE	no
$\{1, 3, 5\}$	$A_1 \times A_1 \times A_1$	no	no	(no)

Σ of type C5

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(YES)
$\{1\}$	A_1	CHAMBER	(FREE)	(YES)
$\{2\}$	A_1	CHAMBER	(FREE)	(YES)
$\{3\}$	A_1	CHAMBER	(FREE)	(YES)
$\{4\}$	A_1	CHAMBER	(FREE)	(YES)
$\{5\}$	A_1	CHAMBER	(FREE)	(YES)
$\{1, 2\}$	A_2	CHAMBER	(FREE)	(YES)
$\{2, 3\}$	A_2	CHAMBER	(FREE)	(YES)
$\{3, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{1, 2, 3\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 4\}$	A_3	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4\}$	A_4	CHAMBER	(FREE)	(YES)
$\{4, 5\}$	B_2	CHAMBER	(FREE)	(YES)
$\{3, 4, 5\}$	C_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 4, 5\}$	C_4	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4, 5\}$	C_5	CHAMBER	(FREE)	(YES)
$\{1, 3\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 5\}$	$A_1 \times A_1$	no	FREE	YES
$\{2, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 5\}$	$A_1 \times A_1$	no	FREE	YES
$\{3, 5\}$	$A_1 \times A_1$	no	FREE	YES
$\{1, 2, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 5\}$	$A_1 \times A_2$	no	FREE	YES
$\{1, 3, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 3, 5\}$	$A_1 \times A_2$	no	FREE	YES
$\{1, 2, 3, 5\}$	$A_1 \times A_3$	no	FREE	YES
$\{1, 4, 5\}$	$A_1 \times B_2$	no	FREE	no
$\{2, 4, 5\}$	$A_1 \times B_2$	no	FREE	no
$\{1, 3, 4, 5\}$	$A_1 \times C_3$	no	FREE	no
$\{1, 2, 4, 5\}$	$A_2 \times B_2$	no	FREE	no
$\{1, 3, 5\}$	$A_1 \times A_1 \times A_1$	no	FREE	no

Σ of type D5

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(YES)
$\{1\}$	A_1	CHAMBER	(FREE)	(YES)
$\{2\}$	A_1	CHAMBER	(FREE)	(YES)
$\{3\}$	A_1	CHAMBER	(FREE)	(YES)
$\{4\}$	A_1	CHAMBER	(FREE)	(YES)
$\{5\}$	A_1	CHAMBER	(FREE)	(YES)
$\{1, 2\}$	A_2	CHAMBER	(FREE)	(YES)
$\{2, 3\}$	A_2	CHAMBER	(FREE)	(YES)
$\{3, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{3, 5\}$	A_2	CHAMBER	(FREE)	(YES)
$\{1, 2, 3\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 4\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 5\}$	A_3	CHAMBER	(FREE)	(YES)
$\{3, 4, 5\}$	A_3	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4\}$	A_4	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 5\}$	A_4	CHAMBER	(FREE)	(YES)
$\{2, 3, 4, 5\}$	D_4	no	no	(no)
$\{1, 2, 3, 4, 5\}$	D_5	CHAMBER	(FREE)	(YES)
$\{1, 3\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{4, 5\}$	$A_1 \times A_1$	no	no	(no)
$\{1, 2, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 4, 5\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 4, 5\}$	$A_1 \times A_1 \times A_1$	no	no	(no)
$\{2, 4, 5\}$	$A_1 \times A_1 \times A_1$	no	no	(no)
$\{1, 2, 4, 5\}$	$A_1 \times A_1 \times A_2$	no	no	(no)

Σ of type G2

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(YES)
$\{1\}$	A_1	CHAMBER	(FREE)	(YES)
$\{2\}$	A_1	CHAMBER	(FREE)	(YES)
$\{1, 2\}$	G_2	CHAMBER	(FREE)	(YES)

Σ of type F4

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(YES)
$\{1\}$	A_1	CHAMBER	(FREE)	(YES)
$\{2\}$	A_1	CHAMBER	(FREE)	(YES)
$\{3\}$	A_1	CHAMBER	(FREE)	(YES)
$\{4\}$	A_1	CHAMBER	(FREE)	(YES)
$\{1, 2\}$	A_2	CHAMBER	(FREE)	(YES)
$\{3, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{2, 3\}$	B_2	CHAMBER	(FREE)	(YES)
$\{1, 2, 3\}$	B_3	no	FREE	YES
$\{2, 3, 4\}$	C_3	no	no	(YES)
$\{1, 2, 3, 4\}$	F_4	CHAMBER	(FREE)	(YES)
$\{1, 3\}$	$A_1 \times A_1$	no	FREE	YES
$\{1, 4\}$	$A_1 \times A_1$	no	FREE	YES
$\{2, 4\}$	$A_1 \times A_1$	no	FREE	YES
$\{1, 2, 4\}$	$A_1 \times A_2$	no	FREE	YES
$\{1, 3, 4\}$	$A_1 \times A_2$	no	FREE	YES

Σ of type E6

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(YES)
$\{1\}$	A_1	CHAMBER	(FREE)	(YES)
$\{2\}$	A_1	CHAMBER	(FREE)	(YES)
$\{3\}$	A_1	CHAMBER	(FREE)	(YES)
$\{4\}$	A_1	CHAMBER	(FREE)	(YES)
$\{5\}$	A_1	CHAMBER	(FREE)	(YES)
$\{6\}$	A_1	CHAMBER	(FREE)	(YES)
$\{1, 3\}$	A_2	CHAMBER	(FREE)	(YES)
$\{2, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{3, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{4, 5\}$	A_2	CHAMBER	(FREE)	(YES)
$\{5, 6\}$	A_2	CHAMBER	(FREE)	(YES)
$\{1, 3, 4\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 4\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 4, 5\}$	A_3	CHAMBER	(FREE)	(YES)
$\{3, 4, 5\}$	A_3	CHAMBER	(FREE)	(YES)
$\{4, 5, 6\}$	A_3	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4\}$	A_4	CHAMBER	(FREE)	(YES)
$\{1, 3, 4, 5\}$	A_4	CHAMBER	(FREE)	(YES)
$\{2, 4, 5, 6\}$	A_4	CHAMBER	(FREE)	(YES)
$\{3, 4, 5, 6\}$	A_4	CHAMBER	(FREE)	(YES)
$\{1, 3, 4, 5, 6\}$	A_5	no	FREE	YES
$\{2, 3, 4, 5\}$	D_4	no	no	(no)
$\{1, 2, 3, 4, 5\}$	D_5	no	no	(no)
$\{2, 3, 4, 5, 6\}$	D_5	no	no	(no)
$\{1, 2, 3, 4, 5, 6\}$	E_6	CHAMBER	(FREE)	(YES)
$\{1, 2\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 6\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 3\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 6\}$	$A_1 \times A_1$	no	FREE	no
$\{3, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{3, 6\}$	$A_1 \times A_1$	no	FREE	no
$\{4, 6\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 2, 3\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 6\}$	$A_1 \times A_2$	no	FREE	no

$\{1, 4, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 5, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 4, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 5, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{3, 4, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{3, 5, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 4, 5\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 3, 4, 6\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 4, 5, 6\}$	$A_1 \times A_3$	no	FREE	no
$\{2, 3, 4, 6\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 2, 3, 4, 6\}$	$A_1 \times A_4$	no	FREE	no
$\{1, 2, 4, 5, 6\}$	$A_1 \times A_4$	no	FREE	no
$\{1, 3, 5, 6\}$	$A_2 \times A_2$	no	FREE	no
$\{1, 2, 5\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 2, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 4, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{2, 3, 5\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{2, 3, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 2, 3, 5\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 3, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 4, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 5, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{2, 3, 5, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 3, 5, 6\}$	$A_1 \times A_2 \times A_2$	no	FREE	no

Σ of type E7

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(YES)
$\{1\}$	A_1	CHAMBER	(FREE)	(YES)
$\{2\}$	A_1	CHAMBER	(FREE)	(YES)
$\{3\}$	A_1	CHAMBER	(FREE)	(YES)
$\{4\}$	A_1	CHAMBER	(FREE)	(YES)
$\{5\}$	A_1	CHAMBER	(FREE)	(YES)
$\{6\}$	A_1	CHAMBER	(FREE)	(YES)
$\{7\}$	A_1	CHAMBER	(FREE)	(YES)
$\{1, 3\}$	A_2	CHAMBER	(FREE)	(YES)
$\{2, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{3, 4\}$	A_2	CHAMBER	(FREE)	(YES)
$\{4, 5\}$	A_2	CHAMBER	(FREE)	(YES)
$\{5, 6\}$	A_2	CHAMBER	(FREE)	(YES)
$\{6, 7\}$	A_2	CHAMBER	(FREE)	(YES)
$\{1, 3, 4\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 3, 4\}$	A_3	CHAMBER	(FREE)	(YES)
$\{2, 4, 5\}$	A_3	CHAMBER	(FREE)	(YES)
$\{3, 4, 5\}$	A_3	CHAMBER	(FREE)	(YES)
$\{4, 5, 6\}$	A_3	CHAMBER	(FREE)	(YES)
$\{5, 6, 7\}$	A_3	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4\}$	A_4	CHAMBER	(FREE)	(YES)
$\{1, 3, 4, 5\}$	A_4	CHAMBER	(FREE)	(YES)
$\{2, 4, 5, 6\}$	A_4	CHAMBER	(FREE)	(YES)
$\{3, 4, 5, 6\}$	A_4	CHAMBER	(FREE)	(YES)
$\{4, 5, 6, 7\}$	A_4	CHAMBER	(FREE)	(YES)
$\{1, 3, 4, 5, 6\}$	A_5	no	FREE	YES
$\{2, 4, 5, 6, 7\}$	A_5	CHAMBER	(FREE)	(YES)
$\{3, 4, 5, 6, 7\}$	A_5	no	FREE	YES
$\{1, 3, 4, 5, 6, 7\}$	A_6	no	FREE	YES
$\{2, 3, 4, 5\}$	D_4	no	no	(no)
$\{1, 2, 3, 4, 5\}$	D_5	no	no	(no)
$\{2, 3, 4, 5, 6\}$	D_5	no	no	(no)
$\{2, 3, 4, 5, 6, 7\}$	D_6	no	no	(no)
$\{1, 2, 3, 4, 5, 6\}$	E_6	CHAMBER	(FREE)	(YES)
$\{1, 2, 3, 4, 5, 6, 7\}$	E_7	CHAMBER	(FREE)	(YES)
$\{1, 2\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 4\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 6\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 7\}$	$A_1 \times A_1$	no	FREE	no

$\{2, 3\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 6\}$	$A_1 \times A_1$	no	FREE	no
$\{2, 7\}$	$A_1 \times A_1$	no	FREE	no
$\{3, 5\}$	$A_1 \times A_1$	no	FREE	no
$\{3, 6\}$	$A_1 \times A_1$	no	FREE	no
$\{3, 7\}$	$A_1 \times A_1$	no	FREE	no
$\{4, 6\}$	$A_1 \times A_1$	no	FREE	no
$\{4, 7\}$	$A_1 \times A_1$	no	FREE	no
$\{5, 7\}$	$A_1 \times A_1$	no	FREE	no
$\{1, 2, 3\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 4\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 3, 7\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 4, 5\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 5, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 6, 7\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 4, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 4, 7\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 5, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{2, 6, 7\}$	$A_1 \times A_2$	no	FREE	no
$\{3, 4, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{3, 4, 7\}$	$A_1 \times A_2$	no	FREE	no
$\{3, 5, 6\}$	$A_1 \times A_2$	no	FREE	no
$\{3, 6, 7\}$	$A_1 \times A_2$	no	FREE	no
$\{4, 5, 7\}$	$A_1 \times A_2$	no	FREE	no
$\{4, 6, 7\}$	$A_1 \times A_2$	no	FREE	no
$\{1, 2, 4, 5\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 3, 4, 6\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 3, 4, 7\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 4, 5, 6\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 5, 6, 7\}$	$A_1 \times A_3$	no	FREE	no
$\{2, 3, 4, 6\}$	$A_1 \times A_3$	no	FREE	no
$\{2, 3, 4, 7\}$	$A_1 \times A_3$	no	FREE	no
$\{2, 4, 5, 7\}$	$A_1 \times A_3$	no	no	(no)
$\{2, 5, 6, 7\}$	$A_1 \times A_3$	no	no	(no)
$\{3, 4, 5, 7\}$	$A_1 \times A_3$	no	FREE	no
$\{3, 5, 6, 7\}$	$A_1 \times A_3$	no	FREE	no
$\{1, 2, 3, 4, 6\}$	$A_1 \times A_4$	no	FREE	no
$\{1, 2, 3, 4, 7\}$	$A_1 \times A_4$	no	FREE	no
$\{1, 2, 4, 5, 6\}$	$A_1 \times A_4$	no	FREE	no
$\{1, 3, 4, 5, 7\}$	$A_1 \times A_4$	no	FREE	no
$\{1, 4, 5, 6, 7\}$	$A_1 \times A_4$	no	FREE	no
$\{1, 2, 4, 5, 6, 7\}$	$A_1 \times A_5$	no	FREE	no
$\{2, 3, 4, 5, 7\}$	$A_1 \times D_4$	no	no	(no)

$\{1, 2, 3, 4, 5, 7\}$	$A_1 \times D_5$	no	no	(no)
$\{1, 3, 5, 6\}$	$A_2 \times A_2$	no	FREE	no
$\{1, 3, 6, 7\}$	$A_2 \times A_2$	no	FREE	no
$\{2, 4, 6, 7\}$	$A_2 \times A_2$	no	FREE	no
$\{3, 4, 6, 7\}$	$A_2 \times A_2$	no	FREE	no
$\{1, 3, 4, 6, 7\}$	$A_2 \times A_3$	no	FREE	no
$\{1, 3, 5, 6, 7\}$	$A_2 \times A_3$	no	FREE	no
$\{2, 3, 4, 6, 7\}$	$A_2 \times A_3$	no	FREE	no
$\{1, 2, 3, 4, 6, 7\}$	$A_2 \times A_4$	no	FREE	no
$\{1, 2, 5\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 2, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 2, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 4, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 4, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 5, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{2, 3, 5\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{2, 3, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{2, 3, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{2, 5, 7\}$	$A_1 \times A_1 \times A_1$	no	no	(no)
$\{3, 5, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	no
$\{1, 2, 3, 5\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 3, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 3, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 4, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 4, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 5, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 6, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 3, 5, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 4, 5, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 4, 6, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{2, 3, 5, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{2, 3, 6, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	no
$\{1, 2, 4, 5, 7\}$	$A_1 \times A_1 \times A_3$	no	no	(no)
$\{1, 2, 5, 6, 7\}$	$A_1 \times A_1 \times A_3$	no	no	(no)
$\{2, 3, 5, 6, 7\}$	$A_1 \times A_1 \times A_3$	no	no	(no)
$\{1, 2, 3, 5, 6\}$	$A_1 \times A_2 \times A_2$	no	FREE	no
$\{1, 2, 3, 6, 7\}$	$A_1 \times A_2 \times A_2$	no	FREE	no
$\{1, 2, 4, 6, 7\}$	$A_1 \times A_2 \times A_2$	no	FREE	no
$\{1, 2, 3, 5, 6, 7\}$	$A_1 \times A_2 \times A_3$	no	no	(no)
$\{1, 2, 5, 7\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	no	(no)
$\{2, 3, 5, 7\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	no	(no)
$\{1, 2, 3, 5, 7\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	no	(no)

Σ of type E8

subset H	type of H	single cell	free	orbit basis
$\{\}$		CHAMBER	(FREE)	(???)
$\{1\}$	A_1	CHAMBER	(FREE)	(???)
$\{2\}$	A_1	CHAMBER	(FREE)	(???)
$\{3\}$	A_1	CHAMBER	(FREE)	(???)
$\{4\}$	A_1	CHAMBER	(FREE)	(???)
$\{5\}$	A_1	CHAMBER	(FREE)	(???)
$\{6\}$	A_1	CHAMBER	(FREE)	(???)
$\{7\}$	A_1	CHAMBER	(FREE)	(???)
$\{8\}$	A_1	CHAMBER	(FREE)	(???)
$\{1, 3\}$	A_2	CHAMBER	(FREE)	(???)
$\{2, 4\}$	A_2	CHAMBER	(FREE)	(???)
$\{3, 4\}$	A_2	CHAMBER	(FREE)	(???)
$\{4, 5\}$	A_2	CHAMBER	(FREE)	(???)
$\{5, 6\}$	A_2	CHAMBER	(FREE)	(???)
$\{6, 7\}$	A_2	CHAMBER	(FREE)	(???)
$\{7, 8\}$	A_2	CHAMBER	(FREE)	(???)
$\{1, 3, 4\}$	A_3	CHAMBER	(FREE)	(???)
$\{2, 3, 4\}$	A_3	CHAMBER	(FREE)	(???)
$\{2, 4, 5\}$	A_3	CHAMBER	(FREE)	(???)
$\{3, 4, 5\}$	A_3	CHAMBER	(FREE)	(???)
$\{4, 5, 6\}$	A_3	CHAMBER	(FREE)	(???)
$\{5, 6, 7\}$	A_3	CHAMBER	(FREE)	(???)
$\{6, 7, 8\}$	A_3	CHAMBER	(FREE)	(???)
$\{1, 2, 3, 4\}$	A_4	CHAMBER	(FREE)	(???)
$\{1, 3, 4, 5\}$	A_4	CHAMBER	(FREE)	(???)
$\{2, 4, 5, 6\}$	A_4	CHAMBER	(FREE)	(???)
$\{3, 4, 5, 6\}$	A_4	CHAMBER	(FREE)	(???)
$\{4, 5, 6, 7\}$	A_4	CHAMBER	(FREE)	(???)
$\{5, 6, 7, 8\}$	A_4	CHAMBER	(FREE)	(???)
$\{1, 3, 4, 5, 6\}$	A_5	no	FREE	???
$\{2, 4, 5, 6, 7\}$	A_5	no	FREE	???
$\{3, 4, 5, 6, 7\}$	A_5	no	FREE	???
$\{4, 5, 6, 7, 8\}$	A_5	no	FREE	???
$\{1, 3, 4, 5, 6, 7\}$	A_6	no	FREE	???
$\{2, 4, 5, 6, 7, 8\}$	A_6	no	FREE	???
$\{3, 4, 5, 6, 7, 8\}$	A_6	no	FREE	???
$\{1, 3, 4, 5, 6, 7, 8\}$	A_7	no	FREE	???
$\{2, 3, 4, 5\}$	D_4	no	no	(???)
$\{1, 2, 3, 4, 5\}$	D_5	no	no	(???)
$\{2, 3, 4, 5, 6\}$	D_5	no	no	(???)

$\{2, 3, 4, 5, 6, 7\}$	D_6	no	no	(???)
$\{2, 3, 4, 5, 6, 7, 8\}$	D_7	no	no	(???)
$\{1, 2, 3, 4, 5, 6\}$	E_6	CHAMBER	(FREE)	(???)
$\{1, 2, 3, 4, 5, 6, 7\}$	E_7	no	no	(???)
$\{1, 2, 3, 4, 5, 6, 7, 8\}$	E_8	CHAMBER	(FREE)	(???)
$\{1, 2\}$	$A_1 \times A_1$	no	FREE	???
$\{1, 4\}$	$A_1 \times A_1$	no	FREE	???
$\{1, 5\}$	$A_1 \times A_1$	no	FREE	???
$\{1, 6\}$	$A_1 \times A_1$	no	FREE	???
$\{1, 7\}$	$A_1 \times A_1$	no	FREE	???
$\{1, 8\}$	$A_1 \times A_1$	no	FREE	???
$\{2, 3\}$	$A_1 \times A_1$	no	FREE	???
$\{2, 5\}$	$A_1 \times A_1$	no	FREE	???
$\{2, 6\}$	$A_1 \times A_1$	no	FREE	???
$\{2, 7\}$	$A_1 \times A_1$	no	FREE	???
$\{2, 8\}$	$A_1 \times A_1$	no	FREE	???
$\{3, 5\}$	$A_1 \times A_1$	no	FREE	???
$\{3, 6\}$	$A_1 \times A_1$	no	FREE	???
$\{3, 7\}$	$A_1 \times A_1$	no	FREE	???
$\{3, 8\}$	$A_1 \times A_1$	no	FREE	???
$\{4, 6\}$	$A_1 \times A_1$	no	FREE	???
$\{4, 7\}$	$A_1 \times A_1$	no	FREE	???
$\{4, 8\}$	$A_1 \times A_1$	no	FREE	???
$\{5, 7\}$	$A_1 \times A_1$	no	FREE	???
$\{5, 8\}$	$A_1 \times A_1$	no	FREE	???
$\{6, 8\}$	$A_1 \times A_1$	no	FREE	???
$\{1, 2, 3\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 2, 4\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 3, 5\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 3, 6\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 3, 7\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 3, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 4, 5\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 5, 6\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 6, 7\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 7, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{2, 4, 6\}$	$A_1 \times A_2$	no	FREE	???
$\{2, 4, 7\}$	$A_1 \times A_2$	no	FREE	???
$\{2, 4, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{2, 5, 6\}$	$A_1 \times A_2$	no	FREE	???
$\{2, 6, 7\}$	$A_1 \times A_2$	no	FREE	???
$\{2, 7, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{3, 4, 6\}$	$A_1 \times A_2$	no	FREE	???
$\{3, 4, 7\}$	$A_1 \times A_2$	no	FREE	???
$\{3, 4, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{3, 5, 6\}$	$A_1 \times A_2$	no	FREE	???

$\{3, 6, 7\}$	$A_1 \times A_2$	no	FREE	???
$\{3, 7, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{4, 5, 7\}$	$A_1 \times A_2$	no	FREE	???
$\{4, 5, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{4, 6, 7\}$	$A_1 \times A_2$	no	FREE	???
$\{4, 7, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{5, 6, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{5, 7, 8\}$	$A_1 \times A_2$	no	FREE	???
$\{1, 2, 4, 5\}$	$A_1 \times A_3$	no	FREE	???
$\{1, 3, 4, 6\}$	$A_1 \times A_3$	no	FREE	???
$\{1, 3, 4, 7\}$	$A_1 \times A_3$	no	FREE	???
$\{1, 3, 4, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{1, 4, 5, 6\}$	$A_1 \times A_3$	no	FREE	???
$\{1, 5, 6, 7\}$	$A_1 \times A_3$	no	FREE	???
$\{1, 6, 7, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{2, 3, 4, 6\}$	$A_1 \times A_3$	no	FREE	???
$\{2, 3, 4, 7\}$	$A_1 \times A_3$	no	FREE	???
$\{2, 3, 4, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{2, 4, 5, 7\}$	$A_1 \times A_3$	no	FREE	???
$\{2, 4, 5, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{2, 5, 6, 7\}$	$A_1 \times A_3$	no	FREE	???
$\{2, 6, 7, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{3, 4, 5, 7\}$	$A_1 \times A_3$	no	FREE	???
$\{3, 4, 5, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{3, 5, 6, 7\}$	$A_1 \times A_3$	no	FREE	???
$\{3, 6, 7, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{4, 5, 6, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{4, 6, 7, 8\}$	$A_1 \times A_3$	no	FREE	???
$\{1, 2, 3, 4, 6\}$	$A_1 \times A_4$	no	FREE	???
$\{1, 2, 3, 4, 7\}$	$A_1 \times A_4$	no	FREE	???
$\{1, 2, 3, 4, 8\}$	$A_1 \times A_4$	no	FREE	???
$\{1, 2, 4, 5, 6\}$	$A_1 \times A_4$	no	FREE	???
$\{1, 3, 4, 5, 7\}$	$A_1 \times A_4$	no	FREE	???
$\{1, 3, 4, 5, 8\}$	$A_1 \times A_4$	no	FREE	???
$\{1, 4, 5, 6, 7\}$	$A_1 \times A_4$	no	FREE	???
$\{1, 5, 6, 7, 8\}$	$A_1 \times A_4$	no	FREE	???
$\{2, 4, 5, 6, 8\}$	$A_1 \times A_4$	no	FREE	???
$\{2, 5, 6, 7, 8\}$	$A_1 \times A_4$	no	FREE	???
$\{3, 4, 5, 6, 8\}$	$A_1 \times A_4$	no	FREE	???
$\{3, 5, 6, 7, 8\}$	$A_1 \times A_4$	no	FREE	???
$\{1, 2, 4, 5, 6, 7\}$	$A_1 \times A_5$	no	FREE	???
$\{1, 3, 4, 5, 6, 8\}$	$A_1 \times A_5$	no	FREE	???
$\{1, 4, 5, 6, 7, 8\}$	$A_1 \times A_5$	no	FREE	???
$\{1, 2, 4, 5, 6, 7, 8\}$	$A_1 \times A_6$	no	FREE	???
$\{2, 3, 4, 5, 7\}$	$A_1 \times D_4$	no	no	(???)
$\{2, 3, 4, 5, 8\}$	$A_1 \times D_4$	no	no	(???)

$\{1, 2, 3, 4, 5, 7\}$	$A_1 \times D_5$	no	no	(???)
$\{1, 2, 3, 4, 5, 8\}$	$A_1 \times D_5$	no	no	(???)
$\{2, 3, 4, 5, 6, 8\}$	$A_1 \times D_5$	no	no	(???)
$\{1, 2, 3, 4, 5, 6, 8\}$	$A_1 \times E_6$	no	FREE	???
$\{1, 3, 5, 6\}$	$A_2 \times A_2$	no	FREE	???
$\{1, 3, 6, 7\}$	$A_2 \times A_2$	no	FREE	???
$\{1, 3, 7, 8\}$	$A_2 \times A_2$	no	FREE	???
$\{2, 4, 6, 7\}$	$A_2 \times A_2$	no	FREE	???
$\{2, 4, 7, 8\}$	$A_2 \times A_2$	no	FREE	???
$\{3, 4, 6, 7\}$	$A_2 \times A_2$	no	FREE	???
$\{3, 4, 7, 8\}$	$A_2 \times A_2$	no	FREE	???
$\{4, 5, 7, 8\}$	$A_2 \times A_2$	no	FREE	???
$\{1, 3, 4, 6, 7\}$	$A_2 \times A_3$	no	FREE	???
$\{1, 3, 4, 7, 8\}$	$A_2 \times A_3$	no	FREE	???
$\{1, 3, 5, 6, 7\}$	$A_2 \times A_3$	no	FREE	???
$\{1, 3, 6, 7, 8\}$	$A_2 \times A_3$	no	FREE	???
$\{2, 3, 4, 6, 7\}$	$A_2 \times A_3$	no	FREE	???
$\{2, 3, 4, 7, 8\}$	$A_2 \times A_3$	no	FREE	???
$\{2, 4, 5, 7, 8\}$	$A_2 \times A_3$	no	FREE	???
$\{2, 4, 6, 7, 8\}$	$A_2 \times A_3$	no	FREE	???
$\{3, 4, 5, 7, 8\}$	$A_2 \times A_3$	no	FREE	???
$\{3, 4, 6, 7, 8\}$	$A_2 \times A_3$	no	FREE	???
$\{1, 2, 3, 4, 6, 7\}$	$A_2 \times A_4$	no	FREE	???
$\{1, 2, 3, 4, 7, 8\}$	$A_2 \times A_4$	no	FREE	???
$\{1, 3, 4, 5, 7, 8\}$	$A_2 \times A_4$	no	FREE	???
$\{1, 3, 5, 6, 7, 8\}$	$A_2 \times A_4$	no	FREE	???
$\{2, 3, 4, 5, 7, 8\}$	$A_2 \times D_4$	no	no	(???)
$\{1, 2, 3, 4, 5, 7, 8\}$	$A_2 \times D_5$	no	no	(???)
$\{1, 3, 4, 6, 7, 8\}$	$A_3 \times A_3$	no	FREE	???
$\{2, 3, 4, 6, 7, 8\}$	$A_3 \times A_3$	no	FREE	???
$\{1, 2, 3, 4, 6, 7, 8\}$	$A_3 \times A_4$	no	FREE	???
$\{1, 2, 5\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 2, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 2, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 2, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 4, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 4, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 4, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 5, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 5, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 6, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 3, 5\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 3, 6\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 3, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 3, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 5, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	???

$\{2, 5, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 6, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{3, 5, 7\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{3, 5, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{3, 6, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{4, 6, 8\}$	$A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 2, 3, 5\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 3, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 3, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 3, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 4, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 4, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 4, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 5, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 6, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 7, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 3, 5, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 3, 5, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 3, 6, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 4, 5, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 4, 5, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 4, 6, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 4, 7, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 5, 6, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 5, 7, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{2, 3, 5, 6\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{2, 3, 6, 7\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{2, 3, 7, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{2, 4, 6, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{2, 5, 6, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{2, 5, 7, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{3, 4, 6, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{3, 5, 6, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{3, 5, 7, 8\}$	$A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 4, 5, 7\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{1, 2, 4, 5, 8\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{1, 2, 5, 6, 7\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{1, 2, 6, 7, 8\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{1, 3, 4, 6, 8\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{1, 4, 5, 6, 8\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{1, 4, 6, 7, 8\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{2, 3, 4, 6, 8\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{2, 3, 5, 6, 7\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{2, 3, 6, 7, 8\}$	$A_1 \times A_1 \times A_3$	no	FREE	???
$\{1, 2, 3, 4, 6, 8\}$	$A_1 \times A_1 \times A_4$	no	FREE	???
$\{1, 2, 4, 5, 6, 8\}$	$A_1 \times A_1 \times A_4$	no	FREE	???

$\{1, 2, 5, 6, 7, 8\}$	$A_1 \times A_1 \times A_4$	no	FREE	???
$\{2, 3, 5, 6, 7, 8\}$	$A_1 \times A_1 \times A_4$	no	FREE	???
$\{1, 2, 3, 5, 6\}$	$A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 2, 3, 6, 7\}$	$A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 2, 3, 7, 8\}$	$A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 2, 4, 6, 7\}$	$A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 2, 4, 7, 8\}$	$A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 3, 5, 6, 8\}$	$A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 3, 5, 7, 8\}$	$A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 4, 5, 7, 8\}$	$A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 2, 3, 5, 6, 7\}$	$A_1 \times A_2 \times A_3$	no	FREE	???
$\{1, 2, 3, 6, 7, 8\}$	$A_1 \times A_2 \times A_3$	no	FREE	???
$\{1, 2, 4, 5, 7, 8\}$	$A_1 \times A_2 \times A_3$	no	FREE	???
$\{1, 2, 4, 6, 7, 8\}$	$A_1 \times A_2 \times A_3$	no	FREE	???
$\{1, 2, 3, 5, 6, 7, 8\}$	$A_1 \times A_2 \times A_4$	no	FREE	???
$\{1, 2, 5, 7\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 2, 5, 8\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 2, 6, 8\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 4, 6, 8\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 3, 5, 7\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 3, 5, 8\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	FREE	???
$\{2, 3, 6, 8\}$	$A_1 \times A_1 \times A_1 \times A_1$	no	FREE	???
$\{1, 2, 3, 5, 7\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 3, 5, 8\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 3, 6, 8\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 4, 6, 8\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 5, 6, 8\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 5, 7, 8\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	FREE	???
$\{2, 3, 5, 6, 8\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	FREE	???
$\{2, 3, 5, 7, 8\}$	$A_1 \times A_1 \times A_1 \times A_2$	no	FREE	???
$\{1, 2, 3, 5, 6, 8\}$	$A_1 \times A_1 \times A_2 \times A_2$	no	FREE	???
$\{1, 2, 3, 5, 7, 8\}$	$A_1 \times A_1 \times A_2 \times A_2$	no	FREE	???
