

Character Tables of Multiplicity-Free Endomorphism Rings

$G = 2.M_{22}.2$ (no. 8)

$H = L_2(11).2 \rightarrow (M_{22}.2, 16)$

rank: 10

degree: 1344

	O_1	O_2	O_3	O_4	O_5	O_6	O_7	O_8
$1a^+$	1	1	55	55	55	55	132	165
$21a^-$	1	1	15	15	-25	-25	-12	45
$55a^+$	1	1	13	13	13	13	-36	-3
$154a^+$	1	1	-5	-5	7	7	12	9
$210a^-$	1	1	-7	-7	-3	-3	-12	1
$231a^-$	1	1	5	5	-3	-3	12	-11
$56a^+$	1	-1	$10-3r5$	$-10+3r5$	$10-3r5$	$-10+3r5$	0	$-15-12r5$
$56a^-$	1	-1	$10+3r5$	$-10-3r5$	$10+3r5$	$-10-3r5$	0	$-15+12r5$
$120a^+$	1	-1	9	-9	-13	13	0	3
$440a^-$	1	-1	-5	5	1	-1	0	3

	O_9	O_{10}
$1a^+$	165	660
$21a^-$	45	-60
$55a^+$	-3	-12
$154a^+$	9	-36
$210a^-$	1	28
$231a^-$	-11	4
$56a^+$	$15+12r5$	0
$56a^-$	$15-12r5$	0
$120a^+$	-3	0
$440a^-$	-3	0

$r5 = Sqrt(5)$

References

- [Mül08] J. Müller. On the multiplicity-free actions of the sporadic simple groups. *J. Algebra*, 320:910–926, 2008.