

Got Tensor Contractions?

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1 DEFINITIONS

1. The values of consecutive indices which are not separated by commas are assumed to form an ascending sequence (partially symmetrical storage).
2. Index groups separated by commas run independently.
3. Index ranges:
m,n,l: full occupied orbital range (e.g., [0..99]);
e,f,d: full virtual orbital range (e.g., [100..999]);
I,J,K: a small (active) subrange of the occupied orbital range (e.g., [90..99]);
A,B,C: a small (active) subrange of the virtual orbital range (e.g., [990..999]);
i,j,k: the occupied orbital range excluding the active subrange (e.g., [0..89]);
a,b,c: the virtual orbital range excluding the active subrange (e.g., [100..989]).
4. Despite multiple forms in which S/L/C tensors may appear in contractions, the only unique elements of these tensors are those which have both upper and lower indices ordered in an ascending order (separately).

2 TENSOR EXPRESSIONS

- (1) 63.18.1.1 : $Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b} \cdot 0.5$
- (2) 63.18.2.0 : $Z + = S_{l_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b}$
- (3) 6.3.1.0 : $Z + = S_{l_1^b}^{d_1^b} H_{d_1^b}^{l_1^b}$
- (4) 64.18.1.1 : $Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$
- (5) 64.18.2.0 : $Z + = S_{l_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$
- (6) 65.18.1.1 : $Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \cdot 0.5$
- (7) 65.18.2.0 : $Z + = S_{l_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$
- (8) 7.3.1.0 : $Z + = S_{l_1^a}^{d_1^a} H_{d_1^a}^{l_1^a}$
- (9) 24.9.1.0 : $Z + = S_{l_1^b, l_2^b}^{d_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b}$
- (10) 25.9.1.0 : $Z + = S_{l_1^a, l_1^b}^{d_1^a, d_1^b} H_{d_1^a, d_1^b}^{l_1^a, l_1^b}$
- (11) 26.9.1.0 : $Z + = S_{l_1^a, l_2^a}^{d_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a}$
- (12) 2.1.1.0 : $Z_{m_1^b}^{e_1^b} + = H_{m_1^b}^{e_1^b}$

- $$\begin{aligned}
(13) \quad & 8.4.1.0 : Z_{m_1^b}^{e_1^b} + = H_{d_1^b}^{e_1^b} S_{m_1^b}^{d_1^b} \\
(14) \quad & 31.11.1.0 : Z_{m_1^b}^{e_1^b} + = H_{d_1^b d_2^b}^{e_1^b, l_1^b} S_{m_1^b, l_1^b}^{d_1^b d_2^b} \\
(15) \quad & 32.11.1.0 : Z_{m_1^b}^{e_1^b} + = H_{d_1^a d_1^b}^{e_1^b, l_1^a} S_{m_1^b, l_1^a}^{d_1^a d_1^b} \\
(16) \quad & 12.6.1.0 : Z_{m_1^b}^{e_1^b} + = H_{m_1^b, d_1^b}^{e_1^b, l_1^b} S_{l_1^b}^{d_1^b} \\
(17) \quad & 13.6.1.0 : Z_{m_1^b}^{e_1^b} + = H_{m_1^b, d_1^a}^{e_1^b, l_1^a} S_{l_1^a}^{d_1^a} \\
(18) \quad & 72.21.1.1 : Z_{m_1^b}^{l_1^b} + = H_{m_1^b, d_1^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_1^b} \cdot -1. \\
(19) \quad & 72.21.2.0 : Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b} \\
(20) \quad & 73.21.1.1 : Z_{m_1^b}^{l_1^b} + = H_{m_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a} \cdot -1. \\
(21) \quad & 73.21.2.0 : Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b} \\
(22) \quad & 186.40.1.2 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b} \cdot -1. \\
(23) \quad & 186.40.2.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b} \\
(24) \quad & 186.40.3.0 : Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b} \\
(25) \quad & 187.40.1.2 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a} \cdot -1. \\
(26) \quad & 187.40.2.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b} \\
(27) \quad & 187.40.3.0 : Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b} \\
(28) \quad & 66.19.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} H_{d_1^b}^{l_1^b} \cdot -1. \\
(29) \quad & 66.19.2.0 : Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b} \\
(30) \quad & 88.25.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b, l_2^b}^{d_1^b d_2^b} H_{d_1^b d_2^b}^{l_1^b, l_2^b} \cdot -1. \\
(31) \quad & 88.25.2.0 : Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b} \\
(32) \quad & 89.25.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b, l_1^a}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a} \cdot -1. \\
(33) \quad & 89.25.2.0 : Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b} \\
(34) \quad & 10.5.1.0 : Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} H_{m_1^b}^{l_1^b} \cdot -1. \\
(35) \quad & 68.20.1.1 : Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{l_1^b}^{d_2^b} \\
(36) \quad & 68.20.2.0 : Z_{m_1^b}^{e_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{e_1^b}
\end{aligned}$$

- (37) $69.20.1.1 : Z_{d_1^b}^{e_b} + = H_{d_1^b, d_1^a}^{e_b, l_1^a} S_{l_1^a}^{d_1^a}$
- (38) $69.20.2.0 : Z_{m_1^b}^{e_b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{e_b}$
- (39) $92.26.1.1 : Z_{m_1^b, d_1^b}^{l_1^b l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b l_2^b} S_{m_1^b}^{d_2^b}$
- (40) $92.26.2.0 : Z_{m_1^b}^{e_b} + = S_{l_1^b l_2^b}^{e_b, d_1^b} Z_{m_1^b, d_1^b}^{l_1^b l_2^b}$
- (41) $35.12.1.0 : Z_{m_1^b}^{e_b} + = S_{l_1^b l_2^b}^{e_b, d_1^b} H_{m_1^b, d_1^b}^{l_1^b l_2^b} \cdot -1.$
- (42) $93.26.1.1 : Z_{m_1^b, d_1^a}^{l_1^a l_2^b} + = H_{d_1^b, d_1^a}^{l_1^a l_2^b} S_{m_1^b}^{d_1^b} \cdot -1.$
- (43) $93.26.2.0 : Z_{m_1^b}^{e_b} + = S_{l_1^a l_1^b}^{e_b, d_1^a} Z_{m_1^b, d_1^a}^{l_1^a l_1^b}$
- (44) $36.12.1.0 : Z_{m_1^b}^{e_b} + = S_{l_1^a l_1^b}^{e_b, d_1^a} H_{m_1^b, d_1^a}^{l_1^a l_1^b} \cdot -1.$
- (45) $96.27.1.1 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b l_2^b} S_{l_2^b}^{d_2^b}$
- (46) $96.27.2.0 : Z_{m_1^b}^{e_b} + = S_{m_1^b, l_1^b}^{e_b, d_1^b} Z_{d_1^b}^{l_1^b}$
- (47) $100.27.1.1 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a}$
- (48) $100.27.2.0 : Z_{m_1^b}^{e_b} + = S_{m_1^b, l_1^b}^{e_b, d_1^b} Z_{d_1^b}^{l_1^b}$
- (49) $27.10.1.0 : Z_{m_1^b}^{e_b} + = S_{m_1^b, l_1^b}^{e_b, d_1^b} H_{d_1^b}^{l_1^b}$
- (50) $98.27.1.1 : Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$
- (51) $98.27.2.0 : Z_{m_1^b}^{e_b} + = S_{m_1^b, l_1^a}^{e_b, d_1^a} Z_{d_1^a}^{l_1^a}$
- (52) $102.27.1.1 : Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a l_2^a} S_{l_2^a}^{d_2^a}$
- (53) $102.27.2.0 : Z_{m_1^b}^{e_b} + = S_{m_1^b, l_1^a}^{e_b, d_1^a} Z_{d_1^a}^{l_1^a}$
- (54) $29.10.1.0 : Z_{m_1^b}^{e_b} + = S_{m_1^b, l_1^a}^{e_b, d_1^a} H_{d_1^a}^{l_1^a}$
- (55) $1.1.1.0 : Z_{m_1^a}^{e_a} + = H_{m_1^a}^{e_a}$
- (56) $9.4.1.0 : Z_{m_1^a}^{e_a} + = H_{d_1^a}^{e_a} S_{m_1^a}^{d_1^a}$
- (57) $33.11.1.0 : Z_{m_1^a}^{e_a} + = H_{d_1^a d_1^b}^{e_a, l_1^b} S_{m_1^a, l_1^b}^{d_1^a d_1^b}$
- (58) $34.11.1.0 : Z_{m_1^a}^{e_a} + = H_{d_1^a d_2^a}^{e_a, l_1^a} S_{m_1^a, l_1^a}^{d_1^a d_2^a}$
- (59) $14.6.1.0 : Z_{m_1^a}^{e_a} + = H_{m_1^a, d_1^b}^{e_a, l_1^b} S_{l_1^b}^{d_1^b}$
- (60) $15.6.1.0 : Z_{m_1^a}^{e_a} + = H_{m_1^a, d_1^a}^{e_a, l_1^a} S_{l_1^a}^{d_1^a}$

- (61) $74.21.1.1 : Z_{m_1^a}^{l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$
- (62) $74.21.2.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$
- (63) $75.21.1.1 : Z_{m_1^a}^{l_1^a} + = H_{m_1^a, d_1^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_1^a} \cdot -1.$
- (64) $75.21.2.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$
- (65) $188.40.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b} \cdot -1.$
- (66) $188.40.2.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$
- (67) $188.40.3.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$
- (68) $189.40.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \cdot -1.$
- (69) $189.40.2.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$
- (70) $189.40.3.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$
- (71) $67.19.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} H_{d_1^a}^{l_1^a} \cdot -1.$
- (72) $67.19.2.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$
- (73) $90.25.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_1^b}^{d_1^a, d_1^b} H_{d_1^a, d_1^b}^{l_1^b, l_1^a}$
- (74) $90.25.2.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$
- (75) $91.25.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_2^a}^{d_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a} \cdot -1.$
- (76) $91.25.2.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$
- (77) $11.5.1.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} H_{m_1^a}^{l_1^a} \cdot -1.$
- (78) $70.20.1.1 : Z_{d_1^a}^{e_1^a} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{l_1^b}^{d_1^b} \cdot -1.$
- (79) $70.20.2.0 : Z_{m_1^a}^{e_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{e_1^a}$
- (80) $71.20.1.1 : Z_{d_1^a}^{e_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{l_1^a}^{d_2^a}$
- (81) $71.20.2.0 : Z_{m_1^a}^{e_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{e_1^a}$
- (82) $94.26.1.1 : Z_{m_1^a, d_1^b}^{l_1^a, l_1^b} + = H_{d_1^b, d_1^a}^{l_1^a, l_1^b} S_{m_1^a}^{d_1^a}$
- (83) $94.26.2.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a, l_1^b}^{e_1^a, d_1^b} Z_{m_1^a, d_1^b}^{l_1^a, l_1^b}$
- (84) $37.12.1.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a, l_1^b}^{e_1^a, d_1^b} H_{m_1^a, d_1^b}^{l_1^a, l_1^b} \cdot -1.$
- (85) $95.26.1.1 : Z_{m_1^a, d_1^a}^{l_1^a, l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{m_1^a}^{d_2^a}$

- (86) $95.26.2.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a l_2^a}^{e_1^a, d_1^a} Z_{m_1^a, d_1^a}^{l_1^a l_2^a}$
- (87) $38.12.1.0 : Z_{m_1^a}^{e_1^a} + = S_{l_1^a l_2^a}^{e_1^a, d_1^a} H_{m_1^a, d_1^a}^{l_1^a l_2^a} \cdot -1.$
- (88) $97.27.1.1 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b}$
- (89) $97.27.2.0 : Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{l_1^b}$
- (90) $101.27.1.1 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a}$
- (91) $101.27.2.0 : Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{l_1^b}$
- (92) $28.10.1.0 : Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{d_1^b}^{l_1^b}$
- (93) $99.27.1.1 : Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$
- (94) $99.27.2.0 : Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a}$
- (95) $103.27.1.1 : Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a}$
- (96) $103.27.2.0 : Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a}$
- (97) $30.10.1.0 : Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} H_{d_1^a}^{l_1^a}$
- (98) $5.2.1.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = H_{m_1^b m_2^b}^{e_1^b e_2^b}$
- (99) $47.15.1.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = H_{d_1^b d_2^b}^{e_1^b e_2^b} S_{m_1^b m_2^b}^{d_1^b d_2^b}$
- (100) $20.8.1.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = H_{m_1^b m_2^b}^{e_1^b, l_1^b} S_{l_1^b}^{e_2^b} \cdot -1.$
- (101) $16.7.1.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = H_{m_1^b, d_1^b}^{e_1^b e_2^b} S_{m_2^b}^{d_1^b}$
- (102) $112.30.1.1 : Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{d_1^b d_2^b}^{e_1^b, l_1^b} S_{m_1^b m_2^b}^{d_1^b d_2^b}$
- (103) $112.30.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (104) $85.24.1.1 : Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{m_1^b m_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{e_1^b} \cdot 0.5$
- (105) $85.24.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (106) $79.23.1.1 : Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{m_1^b, d_1^b}^{e_1^b, l_1^b} S_{m_2^b}^{d_1^b}$
- (107) $79.23.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (108) $198.43.1.2 : Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = H_{d_1^b d_2^b}^{l_1^b, l_2^b} S_{m_1^b m_2^b}^{d_1^b d_2^b} \cdot 0.5$
- (109) $198.43.2.1 : Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$

- (110) 198.43.3.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (111) 194.42.1.2 : $Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = H_{m_1^b, d_1^b}^{l_1^b, l_2^b} S_{m_2^b}^{d_1^b} \cdot 0.5$
- (112) 194.42.2.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$
- (113) 194.42.3.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (114) 230.48.1.3 : $Z_{m_1^b, d_1^b}^{l_1^b, l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{m_1^b}^{d_2^b} \cdot 0.25$
- (115) 230.48.2.2 : $Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{l_1^b, l_2^b}$
- (116) 230.48.3.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$
- (117) 230.48.4.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (118) 190.41.1.2 : $Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{m_1^b}^{d_2^b} \cdot 0.5$
- (119) 190.41.2.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{e_1^b, l_1^b}$
- (120) 190.41.3.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (121) 211.45.1.2 : $Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b}$
- (122) 211.45.2.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$
- (123) 211.45.3.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (124) 213.45.1.2 : $Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a}$
- (125) 213.45.2.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$
- (126) 213.45.3.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (127) 104.28.1.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} H_{d_1^b}^{l_1^b}$
- (128) 104.28.2.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (129) 201.44.1.2 : $Z_{m_1^b, d_1^b}^{l_1^b, l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{m_1^b}^{d_2^b} \cdot -1.$
- (130) 201.44.2.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_2^b}^{e_1^b, d_1^b} Z_{m_2^b, d_1^b}^{l_1^b, l_2^b}$
- (131) 201.44.3.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (132) 134.33.1.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_2^b}^{e_1^b, d_1^b} H_{m_2^b, d_1^b}^{l_1^b, l_2^b}$
- (133) 134.33.2.0 : $Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$

- (134) 203.44.1.2 : $Z_{m_1^b, d_1^a}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b}$
- (135) 203.44.2.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{l_1^b, l_1^a}$
- (136) 203.44.3.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (137) 136.33.1.1 : $Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} H_{m_2^b, d_1^a}^{l_1^b, l_1^a}$
- (138) 136.33.2.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$
- (139) 76.22.1.1 : $Z_{m_1^b, d_1^b}^{e_1^b, e_2^b} + = H_{d_1^b, d_2^b}^{e_1^b, e_2^b} S_{m_1^b}^{d_2^b} \cdot 0.5$
- (140) 76.22.2.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{e_1^b, e_2^b}$
- (141) 144.34.1.1 : $Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = H_{m_1^b, d_1^b}^{l_1^b, l_2^b} S_{m_2^b}^{d_1^b}$
- (142) 144.34.2.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{l_1^b, l_2^b}^{e_1^b, e_2^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$
- (143) 219.46.1.2 : $Z_{m_1^b, d_1^b}^{l_1^b, l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{m_1^b}^{d_2^b} \cdot 0.5$
- (144) 219.46.2.1 : $Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{l_1^b, l_2^b}$
- (145) 219.46.3.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{l_1^b, l_2^b}^{e_1^b, e_2^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$
- (146) 164.37.1.1 : $Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = S_{m_1^b m_2^b}^{d_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b}$
- (147) 164.37.2.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{l_1^b, l_2^b}^{e_1^b, e_2^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$
- (148) 60.17.1.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{l_1^b, l_2^b}^{e_1^b, e_2^b} H_{m_1^b m_2^b}^{l_1^b, l_2^b}$
- (149) 126.32.1.1 : $Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{l_1^b}^{d_2^b}$
- (150) 126.32.2.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{e_2^b}$
- (151) 128.32.1.1 : $Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{l_1^a}^{d_1^a}$
- (152) 128.32.2.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{e_2^b}$
- (153) 167.38.1.1 : $Z_{d_1^b}^{e_1^b} + = S_{l_1^b, l_2^b}^{e_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b} \cdot -1.$
- (154) 167.38.2.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{e_2^b}$
- (155) 169.38.1.1 : $Z_{d_1^b}^{e_1^b} + = S_{l_1^a, l_1^b}^{e_1^b, d_1^a} H_{d_1^b, d_1^a}^{l_1^a, l_1^b} \cdot -1.$
- (156) 169.38.2.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{e_2^b}$
- (157) 39.13.1.0 : $Z_{m_1^b m_2^b}^{e_1^b, e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} H_{d_1^b}^{e_2^b}$

- (158) $148.35.1.1 : Z_{m_1^b}^{l_1^b} + = H_{m_1^b, d_1^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_1^b} \cdot -1.$
- (159) $148.35.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$
- (160) $152.35.1.1 : Z_{m_1^b}^{l_1^b} + = H_{m_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a} \cdot -1.$
- (161) $152.35.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$
- (162) $222.47.1.2 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b} \cdot -1.$
- (163) $222.47.2.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b}$
- (164) $222.47.3.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$
- (165) $226.47.1.2 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a} \cdot -1.$
- (166) $226.47.2.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b}$
- (167) $226.47.3.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$
- (168) $108.29.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} H_{d_1^b}^{l_1^b} \cdot -1.$
- (169) $108.29.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$
- (170) $156.36.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b, l_2^b}^{d_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b} \cdot -1.$
- (171) $156.36.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$
- (172) $158.36.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b, l_1^a}^{d_1^a, d_1^b} H_{d_1^a, d_1^b}^{l_1^b, l_1^a} \cdot -1.$
- (173) $158.36.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$
- (174) $43.14.1.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} H_{m_2^b}^{l_1^b} \cdot -1.$
- (175) $116.31.1.1 : Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{m_1^b}^{d_2^b} \cdot -1.$
- (176) $116.31.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{m_2^b, d_1^b}^{e_2^b, l_1^b}$
- (177) $175.39.1.1 : Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_2^b}^{e_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b} \cdot 0.5$
- (178) $175.39.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{m_2^b, d_1^b}^{e_2^b, l_1^b}$
- (179) $50.16.1.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{m_2^b, d_1^b}^{e_2^b, l_1^b}$
- (180) $118.31.1.1 : Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^b}^{d_1^b}$
- (181) $118.31.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_2^b, l_1^a}$

$$\begin{aligned}
(182) \quad & 179.39.1.1 : Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{d_1^b, l_1^a}^{l_1^b, l_1^a} \\
(183) \quad & 179.39.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_2^b, l_1^a} \\
(184) \quad & 183.39.1.1 : Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a} \cdot 0.5 \\
(185) \quad & 183.39.2.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_2^b, l_1^a} \\
(186) \quad & 52.16.1.0 : Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} H_{m_2^b, d_1^a}^{e_2^b, l_1^a} \\
(187) \quad & 4.2.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = H_{m_1^a m_1^b}^{e_1^a e_1^b} \\
(188) \quad & 48.15.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = H_{d_1^a d_1^b}^{e_1^a e_1^b} S_{m_1^a m_1^b}^{d_1^a d_1^b} \\
(189) \quad & 21.8.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = H_{m_1^a m_1^b}^{e_1^b, l_1^a} S_{l_1^a}^{e_1^a} \\
(190) \quad & 22.8.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = H_{m_1^a m_1^b}^{e_1^a, l_1^b} S_{l_1^b}^{e_1^b} \cdot -1. \\
(191) \quad & 17.7.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = H_{m_1^b, d_1^a}^{e_1^a e_1^b} S_{m_1^a}^{d_1^a} \cdot -1. \\
(192) \quad & 18.7.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = H_{m_1^a, d_1^b}^{e_1^a e_1^b} S_{m_1^b}^{d_1^b} \\
(193) \quad & 114.30.1.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = H_{d_1^a d_1^b}^{e_1^a, l_1^b} S_{m_1^a m_1^b}^{d_1^a d_1^b} \cdot -1. \\
(194) \quad & 114.30.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(195) \quad & 82.23.1.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = H_{m_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^a}^{d_1^a} \\
(196) \quad & 82.23.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(197) \quad & 83.23.1.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = H_{m_1^a, d_1^b}^{e_1^a, l_1^b} S_{m_1^b}^{d_1^b} \cdot -1. \\
(198) \quad & 83.23.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(199) \quad & 192.41.1.2 : Z_{m_1^b, d_1^a}^{e_1^a, l_1^b} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^b}^{d_1^b} \\
(200) \quad & 192.41.2.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, d_1^a}^{e_1^a, l_1^b} \\
(201) \quad & 192.41.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(202) \quad & 212.45.1.2 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b} \cdot -1. \\
(203) \quad & 212.45.2.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{l_1^b} \\
(204) \quad & 212.45.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(205) \quad & 214.45.1.2 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a} \cdot -1.
\end{aligned}$$

$$\begin{aligned}
(206) \quad & 214.45.2.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{l_1^b} \\
(207) \quad & 214.45.3.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(208) \quad & 105.28.1.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{d_1^b}^{l_1^b} \cdot -1. \\
(209) \quad & 105.28.2.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(210) \quad & 205.44.1.2 : Z_{m_1^a, d_1^b}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^a}^{d_1^a} \cdot -1. \\
(211) \quad & 205.44.2.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} Z_{m_1^a, d_1^b}^{l_1^b, l_1^a} \\
(212) \quad & 205.44.3.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(213) \quad & 138.33.1.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} H_{m_1^a, d_1^b}^{l_1^b, l_1^a} \\
(214) \quad & 138.33.2.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(215) \quad & 202.44.1.2 : Z_{m_1^b, d_1^b}^{l_1^b, l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{m_1^b}^{d_2^b} \\
(216) \quad & 202.44.2.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_2^b}^{e_1^a, d_1^b} Z_{m_1^b, d_1^b}^{l_1^b, l_2^b} \\
(217) \quad & 202.44.3.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(218) \quad & 135.33.1.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_2^b}^{e_1^a, d_1^b} H_{m_1^b, d_1^b}^{l_1^b, l_2^b} \cdot -1. \\
(219) \quad & 135.33.2.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(220) \quad & 204.44.1.2 : Z_{m_1^b, d_1^a}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1. \\
(221) \quad & 204.44.2.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{l_1^b, l_1^a} \\
(222) \quad & 204.44.3.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(223) \quad & 137.33.1.1 : Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} H_{m_1^b, d_1^a}^{l_1^b, l_1^a} \cdot -1. \\
(224) \quad & 137.33.2.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b} \\
(225) \quad & 113.30.1.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{d_1^a, d_1^b}^{e_1^b, l_1^a} S_{m_1^a m_1^b}^{d_1^a, d_1^b} \\
(226) \quad & 113.30.2.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(227) \quad & 86.24.1.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{m_1^a m_1^b}^{l_1^b, l_1^a} S_{l_1^b}^{e_1^b} \cdot -1. \\
(228) \quad & 86.24.2.0 : Z_{m_1^a m_1^b}^{e_1^a, e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(229) \quad & 80.23.1.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{m_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^a}^{d_1^a} \cdot -1.
\end{aligned}$$

$$\begin{aligned}
(230) \quad & 80.23.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(231) \quad & 81.23.1.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{m_1^a, d_1^b}^{e_1^b, l_1^a} S_{m_1^b}^{d_1^b} \\
(232) \quad & 81.23.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(233) \quad & 195.42.1.2 : Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = H_{m_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^a}^{d_1^a} \\
(234) \quad & 195.42.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{l_1^b, l_1^a} \\
(235) \quad & 195.42.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(236) \quad & 196.42.1.2 : Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1. \\
(237) \quad & 196.42.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{l_1^b, l_1^a} \\
(238) \quad & 196.42.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(239) \quad & 231.48.1.3 : Z_{m_1^b, d_1^a}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b} \\
(240) \quad & 231.48.2.2 : Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, d_1^a}^{l_1^b, l_1^a} \\
(241) \quad & 231.48.3.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{l_1^b, l_1^a} \\
(242) \quad & 231.48.4.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(243) \quad & 199.43.1.2 : Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = S_{m_1^a m_1^b}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a} \cdot -1. \\
(244) \quad & 199.43.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{l_1^b, l_1^a} \\
(245) \quad & 199.43.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(246) \quad & 191.41.1.2 : Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1. \\
(247) \quad & 191.41.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} \\
(248) \quad & 191.41.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(249) \quad & 215.45.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b} \\
(250) \quad & 215.45.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{l_1^a} \\
(251) \quad & 215.45.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(252) \quad & 217.45.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \\
(253) \quad & 217.45.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{l_1^a}
\end{aligned}$$

$$\begin{aligned}
(254) \quad & 217.45.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(255) \quad & 106.28.1.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} H_{d_1^a}^{l_1^a} \\
(256) \quad & 106.28.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(257) \quad & 207.44.1.2 : Z_{m_1^a, d_1^b}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^a}^{d_1^a} \cdot -1. \\
(258) \quad & 207.44.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{l_1^b, l_1^a} \\
(259) \quad & 207.44.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(260) \quad & 140.33.1.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{m_1^a, d_1^b}^{l_1^b, l_1^a} \\
(261) \quad & 140.33.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(262) \quad & 209.44.1.2 : Z_{m_1^a, d_1^a}^{l_1^a, l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{m_1^a}^{d_2^a} \\
(263) \quad & 209.44.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, d_1^a} Z_{m_1^a, d_1^a}^{l_1^a, l_2^a} \\
(264) \quad & 209.44.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(265) \quad & 142.33.1.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, d_1^a} H_{m_1^a, d_1^a}^{l_1^a, l_2^a} \cdot -1. \\
(266) \quad & 142.33.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(267) \quad & 206.44.1.2 : Z_{m_1^b, d_1^a}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1. \\
(268) \quad & 206.44.2.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} Z_{m_1^b, d_1^a}^{l_1^b, l_1^a} \\
(269) \quad & 206.44.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(270) \quad & 139.33.1.1 : Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} H_{m_1^b, d_1^a}^{l_1^b, l_1^a} \cdot -1. \\
(271) \quad & 139.33.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \\
(272) \quad & 77.22.1.1 : Z_{m_1^b, d_1^a}^{e_1^a e_1^b} + = H_{d_1^b, d_1^a}^{e_1^a e_1^b} S_{m_1^b}^{d_1^b} \cdot -1. \\
(273) \quad & 77.22.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, d_1^a}^{e_1^a e_1^b} \\
(274) \quad & 145.34.1.1 : Z_{m_1^a m_1^b}^{l_1^a l_1^b} + = H_{m_1^b, d_1^a}^{l_1^a l_1^b} S_{m_1^a}^{d_1^a} \cdot -1. \\
(275) \quad & 145.34.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a m_1^b}^{l_1^a l_1^b} \\
(276) \quad & 146.34.1.1 : Z_{m_1^a m_1^b}^{l_1^a l_1^b} + = H_{m_1^a, d_1^b}^{l_1^a l_1^b} S_{m_1^b}^{d_1^b} \\
(277) \quad & 146.34.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a m_1^b}^{l_1^a l_1^b}
\end{aligned}$$

$$\begin{aligned}
(278) \quad & 220.46.1.2 : Z_{m_1^b, d_1^a}^{l_1^a l_1^b} + = H_{d_1^b, d_1^a}^{l_1^a l_1^b} S_{m_1^b}^{d_1^b} \cdot -1. \\
(279) \quad & 220.46.2.1 : Z_{m_1^a m_1^b}^{l_1^a l_1^b} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, d_1^a}^{l_1^a l_1^b} \\
(280) \quad & 220.46.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a m_1^b}^{l_1^a l_1^b} \\
(281) \quad & 165.37.1.1 : Z_{m_1^a m_1^b}^{l_1^a l_1^b} + = S_{m_1^a m_1^b}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^a l_1^b} \\
(282) \quad & 165.37.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a m_1^b}^{l_1^a l_1^b} \\
(283) \quad & 61.17.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} H_{m_1^a m_1^b}^{l_1^a l_1^b} \\
(284) \quad & 130.32.1.1 : Z_{d_1^a}^{e_1^a} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{l_1^b}^{d_1^b} \\
(285) \quad & 130.32.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{e_1^a} \\
(286) \quad & 132.32.1.1 : Z_{d_1^a}^{e_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{l_1^a}^{d_2^a} \cdot -1. \\
(287) \quad & 132.32.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{e_1^a} \\
(288) \quad & 171.38.1.1 : Z_{d_1^a}^{e_1^a} + = S_{l_1^a l_1^b}^{e_1^a, d_1^b} H_{d_1^b, d_1^a}^{l_1^a l_1^b} \cdot -1. \\
(289) \quad & 171.38.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{e_1^a} \\
(290) \quad & 173.38.1.1 : Z_{d_1^a}^{e_1^a} + = S_{l_1^a l_2^a}^{e_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a l_2^a} \\
(291) \quad & 173.38.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{e_1^a} \\
(292) \quad & 41.13.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} H_{d_1^a}^{e_1^a} \cdot -1. \\
(293) \quad & 127.32.1.1 : Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{l_1^b}^{d_2^b} \\
(294) \quad & 127.32.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{e_1^b} \\
(295) \quad & 129.32.1.1 : Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{l_1^a}^{d_1^a} \\
(296) \quad & 129.32.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{e_1^b} \\
(297) \quad & 168.38.1.1 : Z_{d_1^b}^{e_1^b} + = S_{l_1^b l_2^b}^{e_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b l_2^b} \cdot -1. \\
(298) \quad & 168.38.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{e_1^b} \\
(299) \quad & 170.38.1.1 : Z_{d_1^b}^{e_1^b} + = S_{l_1^a l_1^b}^{e_1^b, d_1^a} H_{d_1^b, d_1^a}^{l_1^a l_1^b} \cdot -1. \\
(300) \quad & 170.38.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{e_1^b} \\
(301) \quad & 40.13.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{d_1^b}^{e_1^a}
\end{aligned}$$

- (302) $150.35.1.1 : Z_{m_1^a}^{l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b} \cdot -1.$
- (303) $150.35.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$
- (304) $154.35.1.1 : Z_{m_1^a}^{l_1^a} + = H_{m_1^a, d_1^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_1^a}$
- (305) $154.35.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$
- (306) $224.47.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$
- (307) $224.47.2.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$
- (308) $224.47.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$
- (309) $228.47.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a}$
- (310) $228.47.2.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$
- (311) $228.47.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$
- (312) $110.29.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} H_{d_1^a}^{l_1^a}$
- (313) $110.29.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$
- (314) $160.36.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_1^b}^{d_1^a, d_1^b} H_{d_1^a, d_1^b}^{l_1^b, l_1^a} \cdot -1.$
- (315) $160.36.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$
- (316) $162.36.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_2^a}^{d_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a}$
- (317) $162.36.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$
- (318) $45.14.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} H_{m_1^a}^{l_1^a}$
- (319) $149.35.1.1 : Z_{m_1^b}^{l_1^b} + = H_{m_1^b, d_1^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_1^b} \cdot -1.$
- (320) $149.35.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b}$
- (321) $153.35.1.1 : Z_{m_1^b}^{l_1^b} + = H_{m_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a} \cdot -1.$
- (322) $153.35.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b}$
- (323) $223.47.1.2 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b} \cdot -1.$
- (324) $223.47.2.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b}$
- (325) $223.47.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b}$

$$\begin{aligned}
(326) \quad & 227.47.1.2 : Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a} \cdot -1. \\
(327) \quad & 227.47.2.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b} \\
(328) \quad & 227.47.3.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b} \\
(329) \quad & 109.29.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} H_{d_1^b}^{l_1^b} \cdot -1. \\
(330) \quad & 109.29.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b} \\
(331) \quad & 157.36.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b, l_2^b}^{d_1^b d_2^b} H_{d_1^b d_2^b}^{l_1^b, l_2^b} \cdot -1. \\
(332) \quad & 157.36.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b} \\
(333) \quad & 159.36.1.1 : Z_{m_1^b}^{l_1^b} + = S_{m_1^b, l_1^a}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a} \cdot -1. \\
(334) \quad & 159.36.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b} \\
(335) \quad & 44.14.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} H_{m_1^b}^{l_1^b} \cdot -1. \\
(336) \quad & 122.31.1.1 : Z_{m_1^a, d_1^b}^{e_1^a, l_1^b} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^a}^{d_1^a} \cdot -1. \\
(337) \quad & 122.31.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{e_1^a, l_1^b} \\
(338) \quad & 56.16.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{m_1^a, d_1^b}^{e_1^a, l_1^b} \\
(339) \quad & 124.31.1.1 : Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{m_1^a}^{d_2^a} \cdot -1. \\
(340) \quad & 124.31.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} \\
(341) \quad & 180.39.1.1 : Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{d_1^b, d_1^a}^{l_1^b, l_1^a} \\
(342) \quad & 180.39.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} \\
(343) \quad & 58.16.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} H_{m_1^a, d_1^a}^{e_1^a, l_1^a} \\
(344) \quad & 121.31.1.1 : Z_{m_1^b, d_1^a}^{e_1^a, l_1^b} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^b}^{d_1^b} \cdot -1. \\
(345) \quad & 121.31.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} Z_{m_1^b, d_1^a}^{e_1^a, l_1^b} \\
(346) \quad & 55.16.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} H_{m_1^b, d_1^a}^{e_1^a, l_1^b} \cdot -1. \\
(347) \quad & 120.31.1.1 : Z_{m_1^a, d_1^b}^{e_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^a}^{d_1^a} \\
(348) \quad & 120.31.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} Z_{m_1^a, d_1^b}^{e_1^b, l_1^a} \\
(349) \quad & 178.39.1.1 : Z_{m_1^a, d_1^b}^{e_1^b, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} H_{d_1^b, d_1^a}^{l_1^b, l_1^a}
\end{aligned}$$

$$\begin{aligned}
(350) \quad & 178.39.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} Z_{m_1^a, d_1^b}^{e_1^b, l_1^a} \\
(351) \quad & 54.16.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} H_{m_1^a, d_1^b}^{e_1^b, l_1^a} \cdot -1. \\
(352) \quad & 117.31.1.1 : Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{m_1^b}^{d_2^b} \cdot -1. \\
(353) \quad & 117.31.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} \\
(354) \quad & 176.39.1.1 : Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_2^b}^{e_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b} \\
(355) \quad & 176.39.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} \\
(356) \quad & 51.16.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{m_1^b, d_1^b}^{e_1^b, l_1^b} \\
(357) \quad & 119.31.1.1 : Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^b}^{d_1^b} \\
(358) \quad & 119.31.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} \\
(359) \quad & 181.39.1.1 : Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{d_1^b, d_1^a}^{l_1^b, l_1^a} \\
(360) \quad & 181.39.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} \\
(361) \quad & 184.39.1.1 : Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a} \\
(362) \quad & 184.39.2.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} \\
(363) \quad & 53.16.1.0 : Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} H_{m_1^b, d_1^a}^{e_1^b, l_1^a} \\
(364) \quad & 3.2.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = H_{m_1^a m_2^a}^{e_1^a e_2^a} \\
(365) \quad & 49.15.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = H_{d_1^a d_2^a}^{e_1^a e_2^a} S_{m_1^a m_2^a}^{d_1^a d_2^a} \\
(366) \quad & 23.8.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = H_{m_1^a m_2^a}^{e_1^a, l_1^a} S_{l_1^a}^{e_2^a} \cdot -1. \\
(367) \quad & 19.7.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = H_{m_1^a, d_1^a}^{e_1^a, l_1^a} S_{m_2^a}^{d_1^a} \\
(368) \quad & 115.30.1.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{d_1^a d_2^a}^{e_1^a, l_1^a} S_{m_1^a m_2^a}^{d_1^a d_2^a} \\
(369) \quad & 115.30.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(370) \quad & 87.24.1.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{m_1^a m_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{e_1^a} \cdot 0.5 \\
(371) \quad & 87.24.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(372) \quad & 84.23.1.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{m_1^a, d_1^a}^{e_1^a, l_1^a} S_{m_2^a}^{d_1^a} \\
(373) \quad & 84.23.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(374) \quad & 200.43.1.2 : Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = H_{d_1^a d_2^a}^{l_1^a, l_2^a} S_{m_1^a m_2^a}^{d_1^a d_2^a} \cdot 0.5
\end{aligned}$$

$$\begin{aligned}
(375) \quad & 200.43.2.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a} \\
(376) \quad & 200.43.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(377) \quad & 197.42.1.2 : Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = H_{m_1^a, d_1^a}^{l_1^a, l_2^a} S_{m_2^a}^{d_1^a} \cdot 0.5 \\
(378) \quad & 197.42.2.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a} \\
(379) \quad & 197.42.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(380) \quad & 232.48.1.3 : Z_{m_1^a, d_1^a}^{l_1^a, l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{m_1^a}^{d_2^a} \cdot 0.25 \\
(381) \quad & 232.48.2.2 : Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_1^a}^{l_1^a, l_2^a} \\
(382) \quad & 232.48.3.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a} \\
(383) \quad & 232.48.4.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(384) \quad & 193.41.1.2 : Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{m_1^a}^{d_2^a} \cdot 0.5 \\
(385) \quad & 193.41.2.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_1^a}^{e_1^a, l_1^a} \\
(386) \quad & 193.41.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(387) \quad & 216.45.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b} \\
(388) \quad & 216.45.2.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a} \\
(389) \quad & 216.45.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(390) \quad & 218.45.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \\
(391) \quad & 218.45.2.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a} \\
(392) \quad & 218.45.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(393) \quad & 107.28.1.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} H_{d_1^a}^{l_1^a} \\
(394) \quad & 107.28.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(395) \quad & 208.44.1.2 : Z_{m_1^a, d_1^b}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^a}^{d_1^a} \\
(396) \quad & 208.44.2.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{l_1^b, l_1^a} \\
(397) \quad & 208.44.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(398) \quad & 141.33.1.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{m_2^a, d_1^b}^{l_1^b, l_1^a} \cdot -1. \\
(399) \quad & 141.33.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(400) \quad & 210.44.1.2 : Z_{m_1^a, d_1^a}^{l_1^a, l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{m_1^a}^{d_2^a} \cdot -1.
\end{aligned}$$

$$\begin{aligned}
(401) \quad & 210.44.2.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_2^a}^{e_1^a, d_1^a} Z_{m_2^a, d_1^a}^{l_1^a, l_2^a} \\
(402) \quad & 210.44.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(403) \quad & 143.33.1.1 : Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_2^a}^{e_1^a, d_1^a} H_{m_2^a, d_1^a}^{l_1^a, l_2^a} \\
(404) \quad & 143.33.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a} \\
(405) \quad & 78.22.1.1 : Z_{m_1^a, d_1^a}^{e_1^a e_2^a} + = H_{d_1^a, d_2^a}^{e_1^a e_2^a} S_{m_1^a}^{d_2^a} \cdot 0.5 \\
(406) \quad & 78.22.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_1^a}^{e_1^a e_2^a} \\
(407) \quad & 147.34.1.1 : Z_{m_1^a m_2^a}^{l_1^a l_2^a} + = H_{m_1^a, d_1^a}^{l_1^a l_2^a} S_{m_2^a}^{d_1^a} \\
(408) \quad & 147.34.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} Z_{m_1^a m_2^a}^{l_1^a l_2^a} \\
(409) \quad & 221.46.1.2 : Z_{m_1^a, d_1^a}^{l_1^a l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a l_2^a} S_{m_1^a}^{d_2^a} \cdot 0.5 \\
(410) \quad & 221.46.2.1 : Z_{m_1^a m_2^a}^{l_1^a l_2^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_1^a}^{l_1^a l_2^a} \\
(411) \quad & 221.46.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} Z_{m_1^a m_2^a}^{l_1^a l_2^a} \\
(412) \quad & 166.37.1.1 : Z_{m_1^a m_2^a}^{l_1^a l_2^a} + = S_{m_1^a m_2^a}^{d_1^a d_2^a} H_{d_1^a d_2^a}^{l_1^a l_2^a} \\
(413) \quad & 166.37.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} Z_{m_1^a m_2^a}^{l_1^a l_2^a} \\
(414) \quad & 62.17.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} H_{m_1^a m_2^a}^{l_1^a l_2^a} \\
(415) \quad & 131.32.1.1 : Z_{d_1^a}^{e_1^a} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{l_1^b}^{d_1^b} \cdot -1. \\
(416) \quad & 131.32.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{e_2^a} \\
(417) \quad & 133.32.1.1 : Z_{d_1^a}^{e_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{l_1^a}^{d_2^a} \\
(418) \quad & 133.32.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{e_2^a} \\
(419) \quad & 172.38.1.1 : Z_{d_1^a}^{e_1^a} + = S_{l_1^a l_1^b}^{e_1^a, d_1^b} H_{d_1^b, d_1^a}^{l_1^a l_1^b} \\
(420) \quad & 172.38.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{e_2^a} \\
(421) \quad & 174.38.1.1 : Z_{d_1^a}^{e_1^a} + = S_{l_1^a l_2^a}^{e_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a l_2^a} \cdot -1. \\
(422) \quad & 174.38.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{e_2^a} \\
(423) \quad & 42.13.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} H_{d_1^a}^{e_2^a} \\
(424) \quad & 151.35.1.1 : Z_{m_1^a}^{l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b} \\
(425) \quad & 151.35.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a} \\
(426) \quad & 155.35.1.1 : Z_{m_1^a}^{l_1^a} + = H_{m_1^a, d_1^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_1^a} \cdot -1.
\end{aligned}$$

$$\begin{aligned}
(427) \quad & 155.35.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a} \\
(428) \quad & 225.47.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b} \cdot -1. \\
(429) \quad & 225.47.2.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a} \\
(430) \quad & 225.47.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a} \\
(431) \quad & 229.47.1.2 : Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \cdot -1. \\
(432) \quad & 229.47.2.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a} \\
(433) \quad & 229.47.3.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a} \\
(434) \quad & 111.29.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} H_{d_1^a}^{l_1^a} \cdot -1. \\
(435) \quad & 111.29.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a} \\
(436) \quad & 161.36.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_1^b}^{d_1^a, d_1^b} H_{d_1^a, d_1^b}^{l_1^b, l_1^a} \\
(437) \quad & 161.36.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a} \\
(438) \quad & 163.36.1.1 : Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_2^a}^{d_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a} \cdot -1. \\
(439) \quad & 163.36.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a} \\
(440) \quad & 46.14.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} H_{m_2^a}^{l_1^a} \cdot -1. \\
(441) \quad & 123.31.1.1 : Z_{m_1^a, d_1^b}^{e_1^a, l_1^b} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^a}^{d_1^a} \cdot -1. \\
(442) \quad & 123.31.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a, l_1^b} \\
(443) \quad & 177.39.1.1 : Z_{m_1^a, d_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_2^b}^{e_1^a, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b} \cdot 0.5 \\
(444) \quad & 177.39.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a, l_1^b} \\
(445) \quad & 57.16.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{m_2^a, d_1^b}^{e_2^a, l_1^b} \\
(446) \quad & 125.31.1.1 : Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{m_1^a}^{d_2^a} \cdot -1. \\
(447) \quad & 125.31.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_2^a, d_1^a}^{e_2^a, l_1^a} \\
(448) \quad & 182.39.1.1 : Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{d_1^b, d_1^a}^{l_1^b, l_1^a} \\
(449) \quad & 182.39.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_2^a, d_1^a}^{e_2^a, l_1^a} \\
(450) \quad & 185.39.1.1 : Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_2^a}^{e_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a} \cdot 0.5 \\
(451) \quad & 185.39.2.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_2^a, d_1^a}^{e_2^a, l_1^a} \\
(452) \quad & 59.16.1.0 : Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} H_{m_2^a, d_1^a}^{e_2^a, l_1^a}
\end{aligned}$$