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).

1

2 TENSOR EXPRESSIONS

$$(1) \hspace{1cm} 79.20.1.1: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, l_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b} \cdot 0.5$$

(2)
$$79.20.2.0: Z + = S_{l_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(3) \hspace{1cm} 6.3.1.0: Z+=S^{d^b_1}_{l^b_1}H^{l^b_1}_{d^b_1}$$

$$(4) \hspace{1cm} 80.20.1.1: Z_{d_{1}^{a}}^{l_{1}^{a}} + = H_{d_{1}^{b}, d_{1}^{a}}^{l_{1}^{b}, l_{1}^{a}} S_{l_{1}^{b}}^{d_{1}^{b}}$$

(5)
$$80.20.2.0: Z+ = S_{l_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(6) \hspace{30pt} 81.20.1.1: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \cdot 0.5$$

(7)
$$81.20.2.0: Z + = S_{l_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$$

(8)
$$7.3.1.0: Z += S_{l_1^a}^{d_1^a} H_{d_1^a}^{l_1^a}$$

(9)
$$24.9.1.0: Z+ = S_{l_1^b l_2^b}^{d_1^b d_2^b} H_{d_1^b d_2^b}^{l_1^b l_2^b}$$

$$(10) \qquad 25.9.1.0: Z+=S^{d_1^ad_1^b}_{l_1^al_1^b}H^{l_1^al_1^b}_{d_1^ad_1^b}$$

$$(11) \qquad 26.9.1.0: Z+=S^{d_1^a d_2^a}_{l_1^a l_2^a} H^{l_1^a l_2^a}_{d_1^a d_2^a}$$

$$(12) 2.1.1.0: Z_{m_1^b}^{e_1^b} + = H_{m_1^b}^{e_1^b}$$

$$(13) \qquad 8.4.1.0: Z_{m_1^b}^{e_1^b} + = H_{d_1^b}^{e_1^b} S_{m_1^b}^{d_1^b}$$

$$(14) \qquad 31.11.1.0: Z_{m_1^b}^{e_1^b} + = H_{d_1^b d_2^b}^{e_1^b, l_1^b} S_{m_1^b, l_1^b}^{d_1^b d_2^b}$$

$$(15) 32.11.1.0: Z_{m_1^b}^{e_1^b} + = H_{d_1^a d_1^b}^{e_1^b, l_1^a} S_{m_1^b, l_1^a}^{d_1^a d_1^b}$$

$$(16) 12.6.1.0: Z_{m_b^b}^{e_1^b} + = H_{m_b^b, d_1^b}^{e_1^b, l_1^b} S_{l_b^b}^{d_1^b}$$

(17)
$$13.6.1.0: Z_{m_{\bullet}^{b}}^{e_{1}^{b}, l_{1}^{a}} + H_{m_{\bullet}^{b}, d_{\bullet}^{a}}^{e_{1}^{b}, l_{1}^{a}} S_{l_{1}^{a}}^{d_{1}^{a}}$$

$$(18) \hspace{1cm} 88.23.1.1: Z_{m_b^b}^{l_b^1, l_b^b} + = H_{m_b^b, d_b^b}^{l_b^1, l_b^b} S_{l_b^b}^{d_b^b} \cdot -1.$$

$$(19) \qquad 88.23.2.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(20) \hspace{1cm} 89.23.1.1: Z^{l_1^b}_{m_1^b} + = H^{l_1^b, l_1^a}_{m_1^b, d_1^a} S^{d_1^a}_{l_1^a} \cdot -1.$$

$$(21) \hspace{1cm} 89.23.2.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(22) \qquad 306.51.1.2: Z_{d^b}^{l^b_1} + = H_{d^b,d^b}^{l^b_1,l^b_2} S_{l^b_2}^{d^b_2} \cdot -1.$$

(23)
$$306.51.2.1: Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(24) 306.51.3.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(25) \qquad 307.51.1.2: Z_{d^b}^{l^b_1} + = H_{d^b,d^a}^{l^b,l^a_1} S_{l^a}^{d^a_1} \cdot -1.$$

(26)
$$307.51.2.1: Z_{m_b^b}^{l_1^b} + = S_{m_b^b}^{d_1^b} Z_{d_b^b}^{l_1^b}$$

$$(27) 307.51.3.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b}$$

(28)
$$82.21.1.1: Z_{m_b}^{l_b^b} + = S_{m_b^b}^{d_b^b} H_{d_b^b}^{l_b^b} \cdot -1.$$

$$(29) \hspace{1cm} 82.21.2.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(30) 104.27.1.1: Z_{m_1^b}^{l_1^b} + = S_{m_1^b, l_2^b}^{d_1^b d_2^b} H_{d_1^b d_2^b}^{l_1^b, l_2^b} \cdot -1.$$

(31)
$$104.27.2.0: Z_{m_b^b}^{e_1^b} + = S_{l_b^b}^{e_1^b} Z_{m_b^b}^{l_1^b}$$

$$(32) \qquad 105.27.1.1: Z_{m_{1}^{b}}^{l_{1}^{b}} + = S_{m_{1}^{b}, l_{1}^{a}}^{d_{1}^{a}d_{1}^{b}} H_{d_{1}^{a}d_{1}^{b}}^{l_{1}^{b}, l_{1}^{a}} \cdot -1.$$

$$(33) \qquad 105.27.2.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(34) \qquad \ \, 10.5.1.0: Z_{m^b}^{e^b_1} + = S_{l^b}^{e^b_1} H_{m^b_1}^{l^b_1} \cdot -1.$$

$$(35) 84.22.1.1: Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} Z_{l_2^b}^{d_2^b}$$

$$(36) \hspace{1cm} 84.22.2.0: Z_{m_1^b}^{e_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{e_1^b}$$

$$(37) \qquad 85.22.1.1: Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{l_1^a}^{d_1^a}$$

$$(38) \hspace{1cm} 85.22.2.0: Z_{m_1^b}^{e_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{e_1^b}$$

$$(39) \qquad 108.28.1.1: Z_{m_1^b, d_1^b}^{l_1^b l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b l_2^b} S_{m_1^b}^{d_2^b}$$

$$(40) 108.28.2.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^b l_2^b}^{e_1^b, d_1^b} Z_{m_1^b, d_1^b}^{l_1^b l_2^b}$$

$$(41) \qquad 35.12.1.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^b l_2^b}^{e_1^b, d_1^b} H_{m_1^b, d_1^b}^{l_1^b l_2^b} \cdot -1.$$

$$(42) \qquad 109.28.1.1: Z_{m_b^b, d_a^a}^{l_1^a l_1^b} + = H_{d_b^b, d_a^a}^{l_1^a l_1^b} S_{m_b^a}^{d_b^b} \cdot -1.$$

$$(43) \qquad 109.28.2.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^a l_0^b}^{e_1^b, d_1^a} Z_{m_1^b, d_1^a}^{l_1^a l_0^b}$$

$$(44) \qquad 36.12.1.0: Z_{m_1^b}^{e_1^b} + = S_{l_1^a l_1^b}^{e_1^b, d_1^a} H_{m_1^b, d_1^a}^{l_1^a l_1^b} \cdot -1.$$

$$(45) 112.29.1.1: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b}$$

$$(46) 112.29.2.0: Z_{m_1^b}^{e_1^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(47) 116.29.1.1: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a}$$

$$(48) 116.29.2.0: Z_{m_1^b}^{e_1^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(49) \qquad 27.10.1.0: Z_{m_1^b}^{e_1^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{d_1^b}^{l_1^b}$$

$$(50) \qquad 114.29.1.1: Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$$

$$(51) \qquad 114.29.2.0: Z_{m_1^b}^{e_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{d_1^a}^{l_1^a} \label{eq:c51}$$

$$(52) \qquad 118.29.1.1: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} Z_{l_2^a}^{d_2^a}$$

$$(53) \qquad 118.29.2.0: Z_{m_1^b}^{e_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(54) 29.10.1.0: Z_{m_1^b}^{e_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} H_{d_1^a}^{l_1^a}$$

$$(55) 1.1.1.0: Z_{m_1^a}^{e_1^a} + = H_{m_1^a}^{e_1^a}$$

$$(56) \qquad 9.4.1.0: Z_{m_1^a}^{e_1^a} + = H_{d_1^a}^{e_1^a} S_{m_1^a}^{d_1^a}$$

(57)
$$33.11.1.0: Z_{m^a}^{e_1^a} + H_{d_1^a d_2^b}^{e_1^a, l_1^b} S_{m^a, l_2}^{d_1^a d_1^b}$$

$$(58) \qquad 34.11.1.0: Z_{m_1^a}^{e_1^a} + = H_{d_1^a d_2^a}^{e_1^a, l_1^a} S_{m_1^a, l_1^a}^{d_1^a d_2^a}$$

$$(59) 14.6.1.0: Z_{m_1^a}^{e_1^a} + = H_{m_1^a, d_1^b}^{e_1^a, l_1^b} S_{l_1^b}^{d_1^b}$$

$$(60) 15.6.1.0: Z_{m_1^a}^{e_1^a} + = H_{m_1^a, d_1^a}^{e_1^a, l_1^a} S_{l_1^a}^{d_1^a}$$

(61)
$$90.23.1.1: Z_{m_i^a}^{l_i^a} + = H_{m_a^a, d_b}^{l_b^t, l_i^a} S_{l_b}^{d_b^1}$$

(62)
$$90.23.2.0: Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$$

$$(63) \hspace{1cm} 91.23.1.1: Z_{m_1^a}^{l_1^a} + = H_{m_1^a, d_1^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_1^a} \cdot -1.$$

(64)
$$91.23.2.0: Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$$

$$(65) \qquad 308.51.1.2: Z^{l^a_1}_{d^a_1} + = H^{l^b_1, l^a_1}_{d^b_1, d^a} S^{d^b_1}_{l^b} \cdot -1.$$

(66)
$$308.51.2.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$$

(67)
$$308.51.3.0: Z_{m_a^a}^{e_1^a} + = S_{l_a^a}^{e_1^a} Z_{m_a^a}^{l_1^a}$$

$$(68) \qquad 309.51.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \cdot -1.$$

(69)
$$309.51.2.1: Z_{m_i^a}^{l_1^a} + = S_{m_i^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(70) 309.51.3.0: Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$$

$$(71) 83.21.1.1: Z_{m_a}^{l_a^1} + = S_{m_a}^{d_1^a} H_{d_a}^{l_a^1} \cdot -1.$$

(72)
$$83.21.2.0: Z_{m_a}^{e_1^a} + = S_{l_a}^{e_1^a} Z_{m_a}^{l_1^a}$$

$$(73) 106.27.1.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_1^b}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a}$$

(74)
$$106.27.2.0: Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$$

$$(75) 107.27.1.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_2^a}^{d_1^a d_2^a} H_{d_1^a d_2^a}^{l_1^a, l_2^a} \cdot -1.$$

(76)
$$107.27.2.0: Z_{m_1^a}^{e_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a}^{l_1^a}$$

$$(77) 11.5.1.0: Z_{m_i^a}^{e_1^a} + = S_{l_i^a}^{e_1^a} H_{m_i^a}^{l_1^a} \cdot -1.$$

$$(78) 86.22.1.1: Z_{d_a^a}^{e_a^a} + = H_{d_b^b, d_a^a}^{e_a^a, l_b^b} Z_{l_b^b}^{d_b^b} \cdot -1.$$

(79)
$$86.22.2.0: Z_{m_i}^{e_1^a} + = S_{m_i}^{d_1^a} Z_{d_a^a}^{e_1^a}$$

(80)
$$87.22.1.1: Z_{d_{\mathfrak{q}}^{a}}^{e_{\mathfrak{q}}^{a}} + = H_{d_{\mathfrak{q}}^{a}, d_{\mathfrak{q}}^{a}}^{e_{\mathfrak{q}}^{a}, l_{\mathfrak{q}}^{a}} S_{l_{\mathfrak{q}}^{a}}^{d_{\mathfrak{q}}^{a}}$$

(81)
$$87.22.2.0: Z_{m_1^a}^{e_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{e_1^a}$$

$$(82) \hspace{1cm} 110.28.1.1: Z_{m_{1}^{a}, d_{1}^{b}}^{l_{1}^{a} l_{1}^{b}} + = H_{d_{1}^{b}, d_{1}^{a}}^{l_{1}^{a} l_{1}^{b}} S_{m_{1}^{a}}^{d_{1}^{a}}$$

$$(83) \qquad 110.28.2.0: Z_{m_{1}^{a}}^{e_{1}^{a}} += S_{l_{1}^{a} l_{1}^{b}}^{e_{1}^{a}, d_{1}^{b}} Z_{m_{1}^{a}, d_{1}^{b}}^{l_{1}^{a} l_{1}^{b}}$$

$$(84) 37.12.1.0: Z_{m_1^a}^{e_1^a} + = S_{l_1^a l_1^b}^{e_1^a, d_1^b} H_{m_1^a, d_1^b}^{l_1^a l_1^b} \cdot -1.$$

$$(85) \qquad 111.28.1.1: Z_{m_1^a, d_1^a}^{l_1^a l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a l_2^a} S_{m_1^a}^{d_2^a}$$

(86)
$$111.28.2.0: Z_{m_1^a}^{e_1^a} + = S_{l_1^a l_2^a}^{e_1^a, d_1^a} Z_{m_1^a, d_1^a}^{l_1^a l_2^a}$$

$$(87) \qquad 38.12.1.0: Z_{m_1^a}^{e_1^a} + = S_{l_1^a l_2^a}^{e_1^a, d_1^a} H_{m_1^a, d_1^a}^{l_1^a l_2^a} \cdot -1.$$

$$(88) \qquad 113.29.1.1: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b}$$

$$(89) 113.29.2.0: Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(90) 117.29.1.1: Z_{d_{l}^{b}}^{l_{l}^{b}} + = H_{d_{l}^{b}, d_{q}^{a}}^{l_{l}^{b}, l_{l}^{a}} S_{l_{q}^{a}}^{d_{1}^{a}}$$

$$(91) 117.29.2.0: Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(92) 28.10.1.0: Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{d_1^b}^{l_1^b}$$

(93)
$$115.29.1.1: Z_{d_1^a}^{l_1^a} + = H_{d_2^b, d_3^a}^{l_1^b, l_1^a} S_{l_2^b}^{d_1^b}$$

$$(94) 115.29.2.0: Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{l_1^a}^{l_1^a}$$

$$(95) 119.29.1.1: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} Z_{l_2^a}^{d_2^a}$$

$$(96) 119.29.2.0: Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{d^a}^{l_1^a}$$

$$(97) 30.10.1.0: Z_{m_1^a}^{e_1^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} H_{d_1^a}^{l_1^a}$$

$$(98) \qquad 5.2.1.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = H_{m_1^b m_2^b}^{e_1^b e_2^b}$$

$$(99) 47.15.1.0: Z_{m_b^b m_b^b}^{e_1^b e_2^b} + = H_{d_b^b d_b^b}^{e_1^b e_2^b} S_{m_b^b m_b^b}^{d_1^b d_2^b}$$

$$(100) \qquad 20.8.1.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = H_{m_1^b m_2^b}^{e_1^b, l_1^b} S_{l_1^b}^{e_2^b} \cdot -1.$$

$$(101) 16.7.1.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = H_{m_1^b, d_1^b}^{e_1^b e_2^b} S_{m_2^b}^{d_1^b}$$

$$(102) \qquad 128.32.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{d_1^b d_2^b}^{e_1^b, l_1^b} S_{m_1^b m_2^b}^{d_1^b d_2^b}$$

$$(103) \qquad 128.32.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(104) \qquad 101.26.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{m_1^b m_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{e_1^b} \cdot 0.5$$

$$(105) \qquad 101.26.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(106) \qquad 95.25.1.1: Z_{m_{1}^{b}m_{2}^{b}}^{e_{1}^{b},l_{1}^{b}} + = H_{m_{1}^{b},d_{1}^{b}}^{e_{1}^{b},l_{1}^{b}} S_{m_{2}^{b}}^{d_{1}^{b}}$$

$$(107) \qquad 95.25.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(108) \qquad 318.54.1.2: Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = H_{d_1^b d_2^b}^{l_1^b, l_2^b} S_{m_1^b m_2^b}^{d_1^b d_2^b} \cdot 0.5$$

$$(109) \qquad 318.54.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$$

$$(110) 318.54.3.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(111) \qquad 314.53.1.2: Z_{m_b^b m_b^b}^{l_b^l, l_b^b} + = H_{m_b^b, d_b^b}^{l_b^l, l_b^b} S_{m_b^b}^{d_b^l} \cdot 0.5$$

$$(112) 314.53.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$$

$$(113) \qquad 314.53.3.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(114) \qquad 462.68.1.3: Z_{m_1^b, d_1^b}^{l_1^b, l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{m_1^b}^{d_2^b} \cdot 0.25$$

$$(115) \qquad 462.68.2.2: Z_{m_{\gamma}^{l}m_{\gamma}^{b}}^{l_{1}^{l},l_{2}^{b}} + = S_{m_{\gamma}^{l}}^{d_{1}^{b}} Z_{m_{\gamma}^{b},d_{\gamma}^{b}}^{l_{1}^{b},l_{2}^{b}} \label{eq:constraint}$$

$$(116) \qquad 462.68.3.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$$

$$(117) \qquad 462.68.4.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(118) \qquad 310.52.1.2: Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{m_2^b}^{d_2^b} \cdot 0.5$$

$$(119) \qquad 310.52.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{e_1^b, l_1^b}$$

$$(120) \qquad 310.52.3.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(121) 331.56.1.2: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} Z_{l_2^b}^{d_2^b}$$

$$(122) \qquad 331.56.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(123) \qquad 331.56.3.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(124) \qquad 333.56.1.2: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a}$$

$$(125) \qquad 333.56.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(126) \qquad 333.56.3.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(127) \qquad 120.30.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} H_{d_1^b}^{l_1^b}$$

$$(128) \qquad 120.30.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(129) \qquad 321.55.1.2: Z_{m_1^b,d_1^b}^{l_1^b,l_2^b} + = H_{d_1^b,d_2^b}^{l_1^b,l_2^b} S_{m_1^b}^{d_2^b} \cdot -1.$$

$$(130) \qquad 321.55.2.1: Z_{m_{l}^{b}m_{2}^{b}}^{e_{l}^{b},l_{l}^{b}} + = S_{m_{l}^{b},l_{2}^{b}}^{e_{l}^{b},d_{l}^{b}} Z_{n_{l}^{b},l_{2}^{b}}^{l_{l}^{b},l_{2}^{b}}$$

$$(131) \qquad 321.55.3.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(132) \qquad 150.35.1.1: Z_{m_{1}^{b}m_{2}^{b}}^{e_{1}^{b},l_{1}^{b}} + = S_{m_{1}^{b},l_{2}^{b}}^{e_{1}^{b},d_{1}^{b}} H_{m_{2}^{b},d_{1}^{b}}^{l_{1}^{b},l_{2}^{b}}$$

$$(133) \qquad 150.35.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(134) \qquad 323.55.1.2: Z_{m_{1}^{l_{1}^{l}, l_{1}^{a}}}^{l_{1}^{l}, l_{1}^{a}} + = H_{d_{1}^{l_{1}^{l}, l_{1}^{a}}}^{l_{1}^{l}, l_{1}^{a}} S_{m_{1}^{l}}^{d_{1}^{l}}$$

$$(135) 323.55.2.1: Z_{m_b^b m_b^b}^{e_b^l, l_1^b} + = S_{m_b^b, l_a}^{e_b^l, d_1^a} Z_{m_b^b, d_1^a}^{l_1^b, l_1^a}$$

$$(136) \qquad 323.55.3.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(137) \qquad 152.35.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, l_1^a} H_{m_2^b, d_1^a}^{l_1^b, l_1^a}$$

$$(138) \qquad 152.35.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b} \label{eq:constraint}$$

$$(139) \qquad 92.24.1.1: Z_{m_b^b, d_b^b}^{e_1^b e_2^b} + = H_{d_b^b, d_b^b}^{e_1^b e_2^b} S_{m_b^b}^{d_2^b} \cdot 0.5$$

$$(140) \qquad 92.24.2.0: Z_{m_1^b m_2^b}^{e_2^b e_2^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{e_2^b e_2^b}$$

$$(141) \qquad 160.36.1.1: Z_{m_1^b m_2^b}^{l_1^b l_2^b} + = H_{m_1^b d_2^b}^{l_1^b l_2^b} S_{m_2^b}^{d_1^b}$$

$$(142) \qquad 160.36.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b l_2^b}^{e_1^b e_2^b} Z_{m_1^b m_2^b}^{l_1^b l_2^b}$$

$$(143) \qquad 339.57.1.2: Z_{n_{q}^{b}, d_{q}^{b}}^{l_{1}^{b} l_{2}^{b}} + = H_{d_{q}^{b}, d_{q}^{b}}^{l_{1}^{b} l_{2}^{b}} S_{m_{q}^{b}}^{d_{2}^{b}} \cdot 0.5$$

$$(144) \qquad 339.57.2.1: Z_{m_1^b m_2^b}^{l_1^b l_2^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{l_1^b l_2^b}$$

$$(145) \qquad 339.57.3.0: Z_{m^b m^b}^{e^b_1 e^b} + = S_{l^b l^b_2}^{e^b_1 e^b_2} Z_{m^b m^b_2}^{l^b l^b_2}$$

$$(146) \qquad 220.43.1.1: Z_{m_1^b m_2^b}^{l_1^b l_2^b} + = S_{m_1^b m_2^b}^{d_1^b d_2^b} H_{d_1^b d_2^b}^{l_1^b l_2^b}$$

$$(147) \qquad 220.43.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b l_2^b}^{e_1^b e_2^b} Z_{m_1^b m_2^b}^{l_1^b l_2^b}$$

$$(148) \qquad 60.17.1.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{l_1^b l_2^b}^{e_1^b e_2^b} H_{m_1^b m_2^b}^{l_1^b l_2^b}$$

$$(149) \qquad 142.34.1.1: Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} Z_{l_1^b}^{d_2^b}$$

$$(150) \qquad 142.34.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{e_2^b}$$

$$(151) 144.34.1.1: Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{l_1^a}^{d_1^a}$$

$$(152) \qquad 144.34.2.0: Z_{m_b^b m_b^b}^{e_b^1 e_b^b} + = S_{m_b^b m_b^b}^{e_b^1, d_1^b} Z_{d_p^b}^{e_b^b}$$

$$(153) \qquad 223.44.1.1: Z_{d^b}^{e^b_b} + = S_{l^b_l l^b_b}^{e^b_b, d^b_b} H_{d^b_l, d^b_b}^{l^b_l l^b_b} \cdot -1.$$

$$(154) \qquad 223.44.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{e_2^b}$$

$$(155) \qquad 225.44.1.1: Z_{d^b}^{e^b_1} + = S_{l^a_1 l^b}^{e^b_1, d^a_1} H_{d^b_1, d^a_1}^{l^a_1 l^b_1} \cdot -1.$$

$$(156) \qquad 225.44.2.0: Z_{m_{1}^{b}m_{2}^{b}}^{e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b}m_{2}^{b}}^{e_{1}^{b},d_{1}^{b}} Z_{d_{1}^{b}}^{e_{2}^{b}}$$

$$(157) \qquad 39.13.1.0: Z_{m_1^b m_2^b}^{e_2^b e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} H_{d_1^b}^{e_2^b}$$

$$(158) \qquad 164.37.1.1: Z_{m_1^b}^{l_1^b} + = H_{m_1^b, l_0^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_1^b} \cdot -1.$$

$$(159) \qquad 164.37.2.0: Z_{m_{b}^{b}m_{b}^{b}}^{e_{b}^{b}} + = S_{m_{b}^{b}, l_{b}^{b}}^{e_{b}^{b}} Z_{m_{b}^{b}}^{l_{b}^{b}}$$

$$(160) \qquad 168.37.1.1: Z_{m_{1}^{b}}^{l_{1}^{b}} + = H_{m_{1}, d_{1}^{a}}^{l_{1}^{b}, l_{1}^{a}} S_{l_{1}^{a}}^{d_{1}^{a}} \cdot -1.$$

$$(161) \qquad 168.37.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$$

$$(162) \qquad 342.58.1.2: Z_{d^b_l}^{l^b_l} + = H_{d^b_l, d^b_b}^{l^b_l, l^b_b} Z_{l^b_b}^{d^b_b} \cdot -1.$$

$$(163) 342.58.2.1: Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(164) \qquad 342.58.3.0: Z_{m_{1}^{b}m_{2}^{b}}^{e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b}e_{2}^{b}} Z_{m_{2}^{b}}^{l_{1}^{1}}$$

$$(165) \qquad 346.58.1.2: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^a}^{d_1^a} \cdot -1.$$

$$(166) \qquad 346.58.2.1: Z^{l^b_1}_{m^b_1} + = S^{d^b_1}_{m^b_1} Z^{l^b_1}_{d^b_1}$$

$$(167) \qquad 346.58.3.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$$

$$(168) \qquad 124.31.1.1: Z^{l_1^b}_{m_1^b} + = S^{d_1^b}_{m_1^b} H^{l_1^b}_{d_1^b} \cdot -1.$$

$$(169) \qquad 124.31.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$$

$$(170) \qquad 212.42.1.1: Z_{m_b^b}^{l_b^1} + = S_{m_b^b, l_b^b}^{d_b^1 d_b^b} H_{d_b^b d_b^b}^{l_b^1, l_b^b} \cdot -1.$$

$$(171) \qquad 212.42.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b}^{l_1^b}$$

$$(172) \qquad 214.42.1.1: Z_{m_b^b}^{l_b^1} + = S_{m_b^1, l_a^a}^{d_a^1 d_b^1} H_{d_a^1 d_b^1}^{l_b^1, l_a^1} \cdot -1.$$

$$(173) \qquad 214.42.2.0: Z_{m_p^b m_p^b}^{e_1^b e_2^b} + = S_{m_p^b, l_p^b}^{e_1^b e_2^b} Z_{m_p^b}^{l_b}$$

$$(174) \qquad 43.14.1.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} H_{m_2^b}^{l_1^b} \cdot -1.$$

$$(175) \qquad 132.33.1.1: Z_{m_1^b,d_1^b}^{e_1^b,l_1^b} + = H_{d_1^b,d_2^b}^{e_1^b,l_1^b} S_{m_1^b}^{d_2^b} \cdot -1.$$

$$(176) \qquad 132.33.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{m_2^b, d_1^b}^{e_2^b, l_1^b} Z_{m_2^b, d_1^b}^{e_2^b, l_1^b}$$

$$(177) \qquad 231.45.1.1: Z_{m_b^1, d_b^1}^{e_b^1, l_b^1} + = S_{m_b^1, l_b^2}^{e_b^1, d_b^2} H_{d_b^1, d_b^2}^{l_b^1, l_b^2} \cdot 0.5$$

$$(178) \qquad 231.45.2.0: Z_{m_{p}^{b}m_{p}^{b}}^{e_{p}^{b}} + = S_{m_{p}^{b}, l_{p}^{b}}^{e_{p}^{b}, d_{p}^{b}} Z_{m_{p}^{b}, d_{p}^{b}}^{e_{p}^{b}, l_{p}^{b}} Z_{m_{p}^{b}, d_{p}^{b}}^{e_{p}^{b}, l_{p}^{b}}$$

$$(179) \qquad 50.16.1.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{m_2^b, d_1^b}^{e_2^b, l_1^b}$$

$$(180) \qquad 134.33.1.1: Z_{m_{1}^{b}, d_{1}^{a}}^{e_{1}^{b}, l_{1}^{a}} + = H_{d_{1}^{b}, d_{1}^{a}}^{e_{1}^{b}, l_{1}^{a}} S_{m_{1}^{b}}^{d_{1}^{b}}$$

$$(181) \qquad 134.33.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_2^b, l_1^a}$$

$$(182) 235.45.1.1: Z_{m_b, d_a}^{e_b, l_a^a} + = S_{m_b, l_b}^{e_b, d_a^b} H_{d_b, d_a}^{l_b, l_a^a}$$

$$(183) \qquad 235.45.2.0: Z_{m_1^b m_2^b}^{e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^b, l_1^a} Z_{m_2^b, l_1^a}^{e_2^b, l_1^a}$$

$$(184) \qquad 239.45.1.1: Z_{m_b^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_b^b, l_2^a}^{e_1^b, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a} \cdot 0.5$$

$$(185) \qquad 239.45.2.0: Z_{m_{1}^{b}m_{2}^{b}}^{e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{b},d_{1}^{a}} Z_{m_{2}^{b},d_{1}^{a}}^{e_{2}^{b},l_{1}^{a}}$$

$$(186) 52.16.1.0: Z_{m_b^1 m_b^2}^{e_b^1 e_b^2} + = S_{m_b^1, l_1^a}^{e_b^1, d_1^a} H_{m_b^2, d_1^a}^{e_b^1, l_1^a}$$

$$(187) \qquad 4.2.1.0: Z_{m_1^a m_2^b}^{e_1^a e_1^b} + = H_{m_1^a m_2^b}^{e_1^a e_1^b}$$

$$(188) \qquad 48.15.1.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = H_{d_1^a d_1^b}^{e_1^a e_1^b} S_{m_1^a m_1^b}^{d_1^a d_1^b}$$

$$(189) \qquad 21.8.1.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = H_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} S_{l_{1}^{a}}^{e_{1}^{a}}$$

$$(190) \qquad 22.8.1.0: Z_{m^a m^b_i}^{e^a_1 e^b_1} + = H_{m^a m^b_i}^{e^a_1, l^b_1} S_{l^b}^{e^b_1} \cdot -1.$$

$$(191) \qquad 17.7.1.0: Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a}e_{1}^{b}} + = H_{m_{1}^{b},d_{1}^{a}}^{e_{1}^{a}e_{1}^{b}} S_{m_{1}^{a}}^{d_{1}^{a}} \cdot -1.$$

$$(192) 18.7.1.0: Z_{m_{m_{m_{b}}}^{a_{1}}}^{e_{1}^{a}e_{1}^{b}} + = H_{m_{m_{c}}^{a_{c}}d_{b}^{b}}^{e_{1}^{a}e_{1}^{b}} S_{m_{b}}^{d_{1}^{b}}$$

$$(193) \qquad 130.32.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = H_{d_1^a d_1^b}^{e_1^a, l_1^b} S_{m_1^a m_1^b}^{d_1^a d_1^b} \cdot -1.$$

$$(194) \qquad 130.32.2.0: Z_{m_{q}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}, l_{1}^{b}}$$

$$(195) 98.25.1.1: Z_{m_a^a m_b}^{e_1^a, l_b^1} + = H_{m_b^b, d_a}^{e_1^a, l_b^1} S_{m_a^a}^{d_1^a}$$

$$(196) \qquad 98.25.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b}$$

$$(197) \qquad 99.25.1.1: Z_{m_a^a m_b^b}^{e_a^a, l_b^b} + = H_{m_a^a, d_b^a}^{e_a^a, l_b^b} S_{m_b^b}^{d_b^b} \cdot -1.$$

$$(198) \qquad 99.25.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}}Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(199) \qquad 312.52.1.2: Z_{m_b^b, d_1^a}^{e_1^a, l_b^t} + = H_{d_b^b, d_1^a}^{e_1^a, l_b^t} S_{m_b^t}^{d_b^t}$$

$$(200) \qquad 312.52.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, l_1^a}^{e_1^a, l_1^b}$$

$$(201) \qquad 312.52.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b}$$

$$(202) \qquad 332.56.1.2: Z_{d_{1}^{b}}^{l_{1}^{b}} + = H_{d_{1}^{b}, l_{2}^{b}}^{l_{1}^{b}, l_{2}^{b}} S_{l_{2}^{b}}^{d_{2}^{b}} \cdot -1.$$

$$(203) \qquad 332.56.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d^b}^{l_1^b}$$

$$(204) \qquad 332.56.3.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}}Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(205) \qquad 334.56.1.2: Z_{d_{1}^{b}}^{l_{1}^{b}} + = H_{d_{1}^{b}, d_{1}^{a}}^{l_{1}^{b}, l_{1}^{a}} S_{l_{1}^{a}}^{d_{1}^{a}} \cdot -1.$$

$$(206) 334.56.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_2^b}^{l_1^b}$$

$$(207) \qquad 334.56.3.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}}Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(208) \qquad 121.30.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{d_1^b}^{l_1^b} \cdot -1.$$

$$(209) \qquad 121.30.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}}Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}, l_{1}^{b}}$$

$$(210) \qquad 325.55.1.2: Z^{l_1^b, l_1^a}_{m_1^a, d_1^b} + = H^{l_1^b, l_1^a}_{d_1^b, d_1^a} S^{d_1^a}_{m_1^a} \cdot -1.$$

$$(211) \qquad 325.55.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} Z_{m_1^a, d_1^a}^{l_1^b, l_1^a}$$

$$(212) \qquad 325.55.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b}$$

$$(213) 154.35.1.1: Z_{m_a^a m_c^b}^{e_1^a, l_1^b} + = S_{m_b^b, l_a}^{e_1^a, d_1^b} H_{m_a^a, d_b^b}^{l_1^b, l_1^a}$$

$$(214) \qquad 154.35.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}, l_{1}^{b}}$$

$$(215) 322.55.1.2: Z_{m^b, d^b}^{l^b, l^b_2} + = H_{d^b, d^b}^{l^b, l^b_2} S_{m^b}^{d^b_2}$$

$$(216) \qquad 322.55.2.1: Z_{m_1^a m_2^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_2^b}^{e_1^a, d_1^b} Z_{m_2^b, d_2^b}^{l_1^b, l_2^b}$$

$$(217) 322.55.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{e_1^a, l_1^b}$$

$$(218) \qquad 151.35.1.1: Z_{m_{q}^{a}m_{b}^{b}}^{e_{1}^{a},l_{b}^{b}} + = S_{m_{q}^{a},l_{b}^{b}}^{e_{1}^{a},d_{b}^{b}} H_{n_{q}^{b},d_{b}^{b}}^{l_{b},l_{b}^{b}} \cdot -1.$$

$$(219) \qquad 151.35.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{0}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}, l_{1}^{b}}$$

$$(220) \qquad 324.55.1.2: Z_{m_b^l,d_1^a}^{l_b^l,l_1^a} + = H_{d_b^l,d_1^a}^{l_b^l,l_1^a} S_{m_b^l}^{d_b^l} \cdot -1.$$

$$(221) \qquad 324.55.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, l_1^a}^{l_1^b, l_1^a}$$

$$(222) \qquad 324.55.3.0: Z_{m_{1}^{a}m_{0}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}}Z_{m_{1}^{a}m_{0}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(223) \qquad 153.35.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} H_{m_1^b, d_1^a}^{l_1^b, l_1^a} \cdot -1.$$

$$(224) \qquad 153.35.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}, l_{1}^{b}}$$

$$(225) \qquad 129.32.1.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = H_{d_{1}^{a}d_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} S_{m_{1}^{a}m_{1}^{b}}^{d_{1}^{a}d_{1}^{b}}$$

$$(226) \qquad 129.32.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a}$$

$$(227) \qquad 102.26.1.1: Z_{m^am^b}^{e^b_l, l^a_1} + = H_{m^am^b}^{l^b_l, l^a_1} S_{l^b}^{e^b_1} \cdot -1.$$

$$(228) \qquad 102.26.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a}$$

$$(229) \qquad 96.25.1.1: Z_{m_{n_{m_{n}}}^{a_{m_{n}}}}^{e_{n}^{b}, l_{n}^{a}} + = H_{m_{n}^{b}, d_{n}^{a}}^{e_{n}^{b}, l_{n}^{a}} S_{m_{n}^{a}}^{d_{n}^{a}} \cdot -1.$$

(230)
$$96.25.2.0: Z_{m_{m_{m_{h}}}^{a}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}}^{e_{1}^{a}} Z_{m_{m_{m}}}^{e_{1}^{b}, l_{1}^{a}}$$

$$(231) \qquad 97.25.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{m_1^a, d_1^b}^{e_1^b, l_1^a} S_{m_1^b}^{d_1^b}$$

$$(232) 97.25.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a}$$

$$(233) \qquad 315.53.1.2: Z^{l_{1}^{b}, l_{1}^{a}}_{m_{1}^{a}m_{1}^{b}} + = H^{l_{1}^{b}, l_{1}^{a}}_{m_{1}^{b}, d_{1}^{a}} S^{d_{1}^{a}}_{m_{1}^{a}}$$

$$(234) \qquad 315.53.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1},l_{1}^{a}}$$

$$(235) \qquad 315.53.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} +$$

$$(236) \qquad 316.53.1.2: Z_{m_1^a m_2^b}^{l_1^b, l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1.$$

$$(237) \qquad 316.53.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(238) \qquad 316.53.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a} \label{eq:238}$$

$$(239) 463.68.1.3: Z_{m_b,d_a}^{l_b^l,l_a^l} + = H_{d_b,d_a}^{l_b^l,l_a^l} S_{m_b}^{d_b^l}$$

$$(240) 463.68.2.2: Z_{m_1^a m_2^b}^{l_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^b, d_1^a}^{l_1^b, l_1^a}$$

$$(241) \qquad 463.68.3.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{l_{0}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(242) \qquad 463.68.4.0: Z_{m_{q}^{a}m_{q}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{q}^{a}}^{e_{1}^{a}} Z_{m_{q}^{a}m_{q}^{b}}^{e_{1}^{b}, l_{1}^{a}}$$

$$(243) \qquad 319.54.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = S_{m_1^a m_1^b}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a} \cdot -1.$$

$$(244) \qquad 319.54.2.1: Z_{m_{q}m_{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{l_{b}}^{e_{1}^{b}} Z_{m_{q}m_{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(245) \qquad 319.54.3.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{a}}^{e_{1}^{a}}Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}}$$

$$(246) \qquad 311.52.1.2: Z_{m_{l}^{b},d_{1}^{a}}^{e_{l}^{b},l_{1}^{a}} + = H_{d_{l}^{b},d_{1}^{a}}^{e_{l}^{b},l_{1}^{a}} S_{m_{l}^{b}}^{d_{l}^{b}} \cdot -1.$$

$$(247) \qquad 311.52.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{m_{1}^{a}}^{d_{1}^{a}} Z_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{b},l_{1}^{a}}$$

$$(248) \qquad 311.52.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a}$$

$$(249) \qquad 335.56.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$$

$$(250) \qquad 335.56.2.1: Z_{m^a m^b}^{e^b, l^a_1} + = S_{m^a m^b}^{e^b, d^a_1} Z_{d^a_1}^{l^a_1}$$

$$(251) \qquad 335.56.3.0: Z^{e_1^a e_1^b}_{m_a^a m_1^b} + = S^{e_1^a}_{l_1^a} Z^{e_1^b l_1^a}_{m_1^a m_1^b}$$

$$(252) \qquad 337.56.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} Z_{l_2^a}^{d_2^a}$$

$$(253) \qquad 337.56.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(254) 337.56.3.0: Z_{m_1^a m_2^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^b}^{e_1^b, l_1^a}$$

$$(255) \qquad 122.30.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} H_{d_1^a}^{l_1^a}$$

$$(256) \qquad 122.30.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a}$$

$$(257) \qquad 327.55.1.2: Z_{m_1^a,d_1^b}^{l_1^b,l_1^a} + = H_{d_1^b,d_1^a}^{l_1^b,l_1^a} S_{m_1^a}^{d_1^a} \cdot -1.$$

$$(258) \qquad 327.55.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{l_1^b, l_1^a}$$

$$(259) \qquad 327.55.3.0: Z_{m_q^a m_q^b}^{e_1^a e_1^b} + = S_{l_q^a}^{e_1^a} Z_{m_q^a m_q^b}^{e_1^b, l_1^a}$$

$$(260) \qquad 156.35.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{m_1^a, d_1^b}^{l_1^b, l_1^a}$$

$$(261) 156.35.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a}$$

$$(262) \qquad 329.55.1.2: Z_{m_1^a, d_1^a}^{l_1^a, l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{m_1^a}^{d_2^a}$$

$$(263) 329.55.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, l_1^a} Z_{m_1^a, l_1^a}^{l_1^a, l_2^a}$$

$$(264) \qquad 329.55.3.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{a}}^{e_{1}^{a}}Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b}, l_{1}^{a}}$$

$$(265) \qquad 158.35.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, d_1^a} H_{m_1^a, d_1^a}^{l_1^a, l_2^a} \cdot -1.$$

$$(266) \qquad 158.35.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a}$$

$$(267) \qquad 326.55.1.2: Z^{l_{1}^{b}, l_{1}^{a}}_{m_{1}^{b}, d_{1}^{a}} + = H^{l_{1}^{b}, l_{1}^{a}}_{d_{1}^{b}, d_{1}^{a}} S^{d_{1}^{b}}_{m_{1}^{b}} \cdot -1.$$

$$(268) \qquad 326.55.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} Z_{m_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(269) \qquad 326.55.3.0: Z_{m_{q}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{a}}^{e_{1}^{a}}Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b}, l_{1}^{a}}$$

$$(270) \qquad 155.35.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} H_{m_1^b, d_1^a}^{l_1^b, l_1^a} \cdot -1.$$

$$(271) \qquad 155.35.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{e_1^b, l_1^a}$$

$$(272) 93.24.1.1: Z_{m_b^b, d_a^a}^{e_1^a e_1^b} + = H_{d_b^b, d_a^a}^{e_1^a e_1^b} S_{m_b^b}^{d_1^b} \cdot -1.$$

$$(273) \qquad 93.24.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{m_{1}^{a}}^{d_{1}^{a}}Z_{m_{1}^{b},d_{1}^{a}}^{e_{1}^{a}e_{1}^{b}}$$

$$(274) \qquad 161.36.1.1: Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}l_{1}^{b}} + = H_{m_{1}^{b},d_{1}^{a}}^{l_{1}l_{1}^{b}} S_{m_{1}^{a}}^{d_{1}^{a}} \cdot -1.$$

$$(275) \qquad 161.36.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a m_1^b}^{l_1^a l_1^b}$$

$$(276) \qquad 162.36.1.1: Z_{m_1^a m_1^b}^{l_1^a l_1^b} + = H_{m_1^a, d_1^b}^{l_1^a l_1^b} S_{m_1^b}^{d_1^b}$$

$$(277) \qquad 162.36.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{a}l_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{a}l_{1}^{b}}$$

(278)
$$340.57.1.2: Z_{m_b^b, d^a}^{l_1^a l_b^1} + = H_{d_b^b, d^a}^{l_1^a l_b^1} S_{m_b^b}^{d_b^1} \cdot -1.$$

$$(279) 340.57.2.1: Z_{m_{q_{m_b}}^{l_1 l_1}}^{l_1^{l_1} l_1^{b}} + = S_{m_1^a}^{d_1^a} Z_{m_b^b, d_a}^{l_1^a l_1^b}$$

$$(280) \qquad 340.57.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a m_1^b}^{l_1^a l_1^b}$$

$$(281) \qquad 221.43.1.1: Z_{m_{q}^{a}m_{b}^{b}}^{l_{1}^{a}l_{b}^{b}} + = S_{m_{q}^{a}m_{b}^{b}}^{d_{1}^{a}d_{b}^{b}} H_{d_{1}^{a}d_{b}^{b}}^{l_{1}^{a}l_{b}^{b}}$$

$$(282) \qquad 221.43.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a m_1^b}^{l_1^a l_1^b}$$

$$(283) \qquad 61.17.1.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{a}l_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} H_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{a}l_{1}^{b}}$$

$$(284) 146.34.1.1: Z_{d_1^a}^{e_1^a} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{l_1^b}^{d_1^b}$$

$$(285) \qquad 146.34.2.0: Z_{m_q^a m_q^b}^{e_1^a e_1^b} + = S_{m_q^a m_q^b}^{e_1^b, d_1^a} Z_{d_1^a}^{e_1^a}$$

$$(286) 148.34.1.1: Z_{d^a}^{e^a_1} + = H_{d^a_1, d^a_2}^{e^a_1, l^a_1} S_{l^a}^{d^a_2} \cdot -1.$$

$$(287) \qquad 148.34.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{e_1^a}$$

$$(288) \qquad 227.44.1.1: Z_{d_1^a}^{e_1^a} + = S_{l_1^a l_1^b}^{e_1^a, d_1^b} H_{d_1^b, d_1^a}^{l_1^a l_1^b} \cdot -1.$$

$$(289) \qquad 227.44.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{e_1^a}$$

$$(290) \qquad 229.44.1.1: Z_{d_1^a}^{e_1^a} + = S_{l_1^a l_2^a}^{e_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a l_2^a}$$

$$(291) \qquad 229.44.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},d_{1}^{a}} Z_{d_{1}^{a}}^{e_{1}^{a}}$$

$$(292) 41.13.1.0: Z_{m_a^a m_b^b}^{e_1^a e_1^b} + = S_{m_a^a m_b^b}^{e_1^b, d_1^a} H_{d_1^a}^{e_1^a} \cdot -1.$$

$$(293) \qquad 143.34.1.1: Z_{d_1^b}^{e_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{l_1^b}^{d_2^b}$$

$$(294) \qquad 143.34.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{e_1^b}$$

$$(295) 145.34.1.1: Z_{d_b}^{e_b^b} + = H_{d_b, d_a}^{e_b^b, l_a^a} S_{l_a}^{d_a^a}$$

$$(296) \qquad 145.34.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{e_1^b}$$

$$(297) \qquad 224.44.1.1: Z_{d_1^b}^{e_1^b} + = S_{l_1^b l_2^b}^{e_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b l_2^b} \cdot -1.$$

$$(298) \qquad 224.44.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},d_{1}^{b}} Z_{d_{1}^{b}}^{e_{1}^{b}}$$

$$(299) \qquad 226.44.1.1: Z_{d^b}^{e^1_b} + = S_{l^a_1 l^b_1}^{e^b_1, d^a_1} H_{d^b_1, d^a_1}^{l^a_1 l^b_1} \cdot -1.$$

$$(300) \qquad 226.44.2.0: Z_{m_q^a m_b^b}^{e_1^a e_b^b} + = S_{m_q^a m_b^b}^{e_1^a, d_1^b} Z_{d_b^b}^{e_b^b}$$

$$(301) \qquad 40.13.1.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{d_1^b}^{e_1^b}$$

(302)
$$166.37.1.1: Z_{m_i^a}^{l_i^a} + = H_{m_i^a, d_i^b}^{l_i^b, l_i^a} S_{l_i^b}^{d_i^b} \cdot -1.$$

$$(303) \qquad 166.37.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$$

$$(304) \qquad 170.37.1.1: Z_{m_1^a}^{l_1^a} + = H_{m_1,d_1}^{l_1^a,l_2^a} S_{l_2^a}^{d_1^a}$$

$$(305) \qquad 170.37.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$$

$$(306) 344.58.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$$

$$(307) 344.58.2.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(308) \qquad 344.58.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$$

$$(309) \qquad 348.58.1.2: Z_{d_{1}^{a}}^{l_{1}^{a}} + = H_{d_{1}^{a}, d_{2}^{a}}^{l_{1}^{a}, l_{2}^{a}} S_{l_{2}^{a}}^{d_{2}^{a}}$$

(310)
$$348.58.2.1: Z_{m_q}^{l_1^a} + = S_{m_q}^{d_1^a} Z_{d_a}^{l_1^a}$$

$$(311) \qquad 348.58.3.0: Z_{m_{1}^{a_{1}^{a_{1}^{b}}}}^{e_{1}^{a_{1}^{b}} + b} = S_{m_{1}^{b}, l_{1}^{a}}^{e_{1}^{a_{1}^{b}}} Z_{m_{1}^{a}}^{l_{1}^{a}}$$

$$(312) 126.31.1.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} H_{d_1^a}^{l_1^a}$$

$$(313) \qquad 126.31.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$$

$$(314) 216.42.1.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_1^b}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a} \cdot -1.$$

$$(315) \qquad 216.42.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a}^{l_1^a}$$

$$(316) 218.42.1.1: Z_{m_a}^{l_a^1} + = S_{m_a^a, l_a}^{d_a^1 d_a^2} H_{d_a^a d_a}^{l_a^1, l_a^2}$$

$$(317) 218.42.2.0: Z_{m_a^a m_b^b}^{e_1^a e_1^b} + = S_{m_b^b, l_a}^{e_1^a e_1^b} Z_{m_a^a}^{l_1^a}$$

$$(318) \qquad 45.14.1.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} H_{m_1^a}^{l_1^a}$$

$$(319) \qquad 165.37.1.1: Z^{l^{1}_{b}}_{m^{b}_{t}} + = H^{l^{b}_{1}, l^{b}_{2}}_{m^{b}_{t}, d^{b}_{b}} S^{d^{1}_{b}}_{l^{b}_{b}} \cdot -1.$$

$$(320) \qquad 165.37.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(321) \qquad 169.37.1.1: Z_{m_l^l}^{l_l^b} + = H_{m_l^b, d_q^a}^{l_l^b, l_1^a} S_{l_1^q}^{d_1^a} \cdot -1.$$

$$(322) \qquad 169.37.2.0: Z_{m_{m_{m_{b}}}^{a_{1}}}^{e_{1}^{1}} + = S_{m_{m_{b}}^{a_{1}}}^{e_{1}^{1}} Z_{m_{b}}^{l_{b}^{1}}$$

$$(323) \qquad 343.58.1.2: Z_{d^b_1}^{l^b_1} + = H_{d^b_1, d^b_2}^{l^b_1, l^b_2} S_{l^b_2}^{d^b_2} \cdot -1.$$

$$(324) \qquad 343.58.2.1: Z^{l^b_1}_{m^b_1} + = S^{d^b_1}_{m^b_1} Z^{l^b_1}_{d^b_1}$$

$$(325) \qquad 343.58.3.0: Z_{m_{a}^{a}m_{b}^{b}}^{e_{1}^{a}e_{b}^{b}} + = S_{m_{a}^{1},l_{b}^{b}}^{e_{1}^{a}e_{b}^{b}} Z_{m_{b}^{b}}^{l_{b}^{b}}$$

(326)
$$347.58.1.2: Z_{d_{b}^{b}}^{l_{b}^{b}} + = H_{d_{b}^{b}, d_{a}^{a}}^{l_{b}^{b}, l_{a}^{a}} S_{l_{a}^{a}}^{d_{a}^{a}} \cdot -1.$$

$$(327) 347.58.2.1: Z_{m_i^b}^{l_1^b} + = S_{m_i^b}^{d_1^b} Z_{d_i^b}^{l_1^b}$$

$$(328) \qquad 347.58.3.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(329) \qquad 125.31.1.1: Z_{m_1^b}^{l_1^b} + = S_{m_1^b}^{d_1^b} H_{d_1^b}^{l_1^b} \cdot -1.$$

$$(330) \qquad 125.31.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(331) \qquad 213.42.1.1: Z_{m_b^b}^{l_b^1} + = S_{m_b^b, l_b^b}^{d_b^1 d_b^b} Z_{d_b^b d_b^b}^{l_b^1, l_b^b} \cdot -1.$$

$$(332) \qquad 213.42.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(333) \qquad 215.42.1.1: Z_{m_b^b}^{l_1^b} + = S_{m_b^1, l_a^a}^{d_1^a d_b^b} H_{d_a^a d_b^b}^{l_1^b, l_1^a} \cdot -1.$$

$$(334) \qquad 215.42.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b}^{l_1^b}$$

$$(335) \qquad 44.14.1.0: Z_{m^a m^b_1}^{e^1_a e^b_1} + = S_{m^a_1, l^b_1}^{e^a_1 e^b_1} H_{m^b_1}^{l^b} \cdot -1.$$

$$(336) \qquad 138.33.1.1: Z_{m^a,d^b}^{e^a_1,l^b_1} + = H_{d^b_1,d^a_1}^{e^a_1,l^b_1} S_{m^a_1}^{d^a_1} \cdot -1.$$

$$(337) \qquad 138.33.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{m_1, d_1^b}^{e_1^a, l_1^b} \\ + \sum_{m_1^b, l_1^b} Z_{m_1, d_1^b}^{e_1^a, l_1^b} Z_{m_1, d_1^b}^{e_1^a, l_1^b}$$

$$(338) \qquad 56.16.1.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b},l_{1}^{b}} H_{m_{1}^{a},d_{1}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(339) 140.33.1.1: Z_{m^a,d^a}^{e_1^a,l_1^a} + = H_{d^a,d^a}^{e_1^a,l_1^a} S_{m^a}^{d_2^a} \cdot -1.$$

$$(340) \qquad 140.33.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{b},l_{1}^{a}} Z_{m_{1}^{a},l_{1}^{a}}^{e_{1}^{a},l_{1}^{a}} \\$$

$$(341) \qquad 236.45.1.1: Z_{m_1^a,d_1^a}^{e_1^a,l_1^a} + = S_{m_1^a,l_1^b}^{e_1^a,d_1^b} H_{d_1^b,d_1^a}^{l_1^b,l_1^a}$$

$$(342) \qquad 236.45.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{b},l_{1}^{a}} Z_{m_{1}^{a},d_{1}^{a}}^{e_{1}^{a},l_{1}^{a}}$$

$$(343) 58.16.1.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} H_{m_1^a, d_1^a}^{e_1^a, l_1^a}$$

$$(344) \qquad 137.33.1.1: Z_{m_{1}^{b},d_{1}^{a}}^{e_{1}^{a},l_{1}^{b}} + = H_{d_{1}^{b},d_{1}^{a}}^{e_{1}^{a},l_{1}^{b}} S_{m_{1}^{b}}^{d_{1}^{b}} \cdot -1.$$

$$(345) \qquad 137.33.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} Z_{m_1^b, d_1^a}^{e_1^a, l_1^b}$$

$$(346) \qquad 55.16.1.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} H_{m_1^b, d_1^a}^{e_1^a, l_1^b} \cdot -1.$$

$$(347) \qquad 136.33.1.1: Z_{m_1, d_1^a}^{e_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^a}^{d_1^a}$$

$$(348) \qquad 136.33.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} Z_{m_1^a, d_1^b}^{e_1^b, l_1^a}$$

$$(349) \qquad 234.45.1.1: Z_{m_1, d_1^b}^{e_1^b, l_1^a} + = S_{m_1, l_1^b}^{e_1^b, d_1^a} H_{d_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(350) 234.45.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} Z_{m_1^a, d_1^b}^{e_1^b, l_1^a}$$

$$(351) \qquad 54.16.1.0: Z_{m^a m^b_i}^{e^a_1 e^b_1} + = S_{m^b_i, l^a_i}^{e^a_1, d^b_1} H_{m^a_i, d^b_i}^{e^b_i, l^a_1} \cdot -1.$$

$$(352) \qquad 133.33.1.1: Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{m_1^b}^{d_2^b} \cdot -1.$$

$$(353) \qquad 133.33.2.0: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{a},d_{1}^{b}} Z_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b},l_{1}^{b}}$$

$$(354) \qquad 232.45.1.1: Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_2^b}^{e_1^b, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b}$$

$$(355) \qquad 232.45.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{m_1^b, l_1^b}^{e_1^b, l_1^b}$$

$$(356) \qquad 51.16.1.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{m_1^b, d_1^b}^{e_1^b, l_1^b}$$

$$(357) \qquad 135.33.1.1: Z_{m_b^b, d_a^a}^{e_b^l, l_a^a} + = H_{d_b^b, d_a^a}^{e_b^l, l_a^a} S_{m_b^b}^{d_b^l}$$

$$(358) \qquad 135.33.2.0: Z_{m^{a}m^{b}}^{e^{1}a^{b}} + = S_{m^{a}, l^{a}}^{e^{1}, d^{a}_{1}} Z_{m^{b}, d^{a}_{2}}^{e^{b}, l^{a}_{1}}$$

$$(359) \qquad 237.45.1.1: Z_{m_{b}^{b}, d_{a}^{a}}^{e_{1}^{b}, l_{1}^{a}} + = S_{m_{b}^{b}, l_{b}}^{e_{1}^{b}, d_{1}^{b}} H_{d_{b}^{b}, d_{a}^{a}}^{l_{1}^{b}, l_{1}^{a}}$$

$$(360) 237.45.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a}$$

$$(361) \qquad 240.45.1.1: Z_{m_b^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_b^b, l_2}^{e_1^b, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a}$$

$$(362) \qquad 240.45.2.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a}$$

$$(363) 53.16.1.0: Z_{m_1^a m_1^b}^{e_1^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} H_{m_1^b, d_1^a}^{e_1^b, l_1^a}$$

$$(364) \qquad 3.2.1.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = H_{m_1^a m_2^a}^{e_1^a e_2^a}$$

$$(365) \qquad 49.15.1.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = H_{d_1^a d_2^a}^{e_1^a e_2^a} S_{m_1^a m_2^a}^{d_1^a d_2^a}$$

$$(366) \qquad 23.8.1.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = H_{m_1^a m_2^a}^{e_1^a, l_1^a} S_{l_1^a}^{e_2^a} \cdot -1.$$

$$(367) \qquad 19.7.1.0: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a}e_{2}^{a}} + = H_{m_{1}^{a},d_{1}^{a}}^{e_{1}^{a}}S_{m_{2}^{a}}^{d_{1}^{a}}$$

$$(368) \qquad 131.32.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{d_1^a d_2^a}^{e_1^a, l_1^a} S_{m_1^a m_2^a}^{d_1^a d_2^a}$$

$$(369) \qquad 131.32.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(370) \qquad 103.26.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{m_1^a m_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{e_1^a} \cdot 0.5$$

$$(371) 103.26.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(372) 100.25.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{m_1^a, l_1^a}^{e_1^a, l_1^a} S_{m_2^a}^{d_1^a}$$

$$(373) \qquad 100.25.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

(374)
$$320.54.1.2: Z_{m_{\alpha_{\alpha_{\alpha}}}}^{l_{\alpha_{\alpha}}^{1}, l_{\alpha_{\alpha}}^{2}} + = H_{d_{\alpha}}^{l_{\alpha}^{1}, l_{\alpha}^{2}} S_{m_{\alpha_{\alpha}}}^{d_{\alpha}^{1}} S_{\alpha_{\alpha}}^{2} \cdot 0.5$$

$$(375) 320.54.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a}$$

$$(376) \qquad 320.54.3.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(377) 317.53.1.2: Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = H_{m_1, d_1^a}^{l_1^a, l_2^a} S_{m_2^a}^{d_1^a} \cdot 0.5$$

$$(378) \qquad 317.53.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a}$$

$$(379) \qquad 317.53.3.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(380) \qquad 464.68.1.3: Z_{m_1, d_1}^{l_1^a, l_2^a} + = H_{d_1, d_2}^{l_1^a, l_2^a} S_{m_1}^{d_2^a} \cdot 0.25$$

$$(381) 464.68.2.2: Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_1^a}^{l_1^a, l_2^a}$$

$$(382) \qquad 464.68.3.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a}$$

$$(383) \qquad 464.68.4.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(384) \qquad 313.52.1.2: Z_{m_{q}^{a}, d_{q}^{a}}^{e_{1}^{a}, l_{1}^{a}} + = H_{d_{q}^{a}, d_{q}^{a}}^{e_{1}^{a}, l_{1}^{a}} S_{m_{q}^{a}}^{d_{2}^{a}} \cdot 0.5$$

$$(385) \qquad 313.52.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_2, d_1^a}^{e_1^a, l_1^a}$$

$$(386) \qquad 313.52.3.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(387) \qquad 336.56.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$$

$$(388) \qquad 336.56.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(389) 336.56.3.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(390) \qquad 338.56.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a}$$

$$(391) \qquad 338.56.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(392) \qquad 338.56.3.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_4^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(393) \qquad 123.30.1.1: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a},l_{1}^{a}} + = S_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a},d_{1}^{a}} H_{d_{1}^{a}}^{l_{1}^{a}}$$

$$(394) \qquad 123.30.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(395) 328.55.1.2: Z_{m_1,d_1}^{l_1^b,l_1^a} + = H_{d_1^b,d_1^a}^{l_1^b,l_1^a} S_{m_1^a}^{d_1^a}$$

$$(396) \qquad 328.55.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_4^a, l_1^b}^{e_1^a, d_1^b} Z_{m_5^a, d_1^b}^{l_1^b, l_1^a}$$

$$(397) 328.55.3.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(398) \qquad 157.35.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{m_2^a, d_1^b}^{l_b, l_1^a} \cdot -1.$$

$$(399) \qquad 157.35.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(400) 330.55.1.2: Z_{m^a, d^a}^{l_1^a, l_2^a} + = H_{d^a, d^a}^{l_1^a, l_2^a} S_{m^a}^{d^a} \cdot -1.$$

$$(401) 330.55.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_2^a}^{e_1^a, l_1^a} Z_{m_2^a, l_1^a}^{l_1^a, l_2^a}$$

$$(402) \qquad 330.55.3.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(403) \qquad 159.35.1.1: Z_{m_{1}^{n}m_{2}^{n}}^{e_{1}^{n},l_{1}^{n}} + = S_{m_{1}^{n},l_{2}^{n}}^{e_{1}^{n},d_{1}^{n}} H_{m_{2}^{n},d_{1}^{n}}^{l_{1}^{n},l_{2}^{n}}$$

$$(404) 159.35.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(405) 94.24.1.1: Z_{m_1,d_1}^{e_1^a e_2^a} + = H_{d_1^a,d_1^a}^{e_1^a e_2^a} S_{m_1^a}^{d_2^a} \cdot 0.5$$

$$(406) \qquad 94.24.2.0: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a}e_{2}^{a}} + = S_{m_{1}^{a}}^{d_{1}^{a}}Z_{m_{2}^{a},d_{1}^{a}}^{e_{1}^{a}e_{2}^{a}}$$

$$(407) 163.36.1.1: Z_{m_1^a m_2^a}^{l_1^a l_2^a} + = H_{m_1^a, l_1^a}^{l_1^a l_2^a} S_{m_2^a}^{d_1^a}$$

$$(408) \qquad 163.36.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} Z_{m_1^a m_2^a}^{l_1^a l_2^a}$$

$$(409) \qquad 341.57.1.2: Z_{m_{\uparrow}^{a}, d_{1}^{a}}^{l_{1}^{a} l_{2}^{a}} + = H_{d_{\uparrow}^{a}, d_{2}^{a}}^{l_{1}^{a} l_{2}^{a}} S_{m_{1}^{a}}^{d_{2}^{a}} \cdot 0.5$$

$$(410) 341.57.2.1: Z_{m_1^a m_2^a}^{l_1^a l_2^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_2}^{l_1^a l_2^a}$$

$$(411) 341.57.3.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} Z_{m_1^a m_2^a}^{l_1^a l_2^a}$$

$$(412) 222.43.1.1: Z_{m_1^a m_2^a}^{l_1^a l_2^a} + = S_{m_1^a m_2^a}^{d_1^a d_2^a} H_{d_1^a d_2^a}^{l_1^a l_2^a}$$

$$(413) \qquad 222.43.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} Z_{m_1^a m_2^a}^{l_1^a l_2^a}$$

$$(414) 62.17.1.0: Z_{m^a m^a}^{e_1^a e_2^a} + = S_{l^a l^a_2}^{e_1^a e_2^a} H_{m^a m^a}^{l^a_1 l^a_2}$$

$$(415) \qquad 147.34.1.1: Z_{d^a}^{e^a_1} + = H_{d^b,d^a}^{e^a_1,l^b_1} S_{l^b}^{d^b_1} \cdot -1.$$

$$(416) 147.34.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_2^a}^{e_2^a}$$

$$(417) 149.34.1.1: Z_{d_1^a}^{e_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{l_1^a}^{d_2^a}$$

$$(418) 149.34.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{e_2^a}$$

$$(419) 228.44.1.1: Z_{d_a^a}^{e_1^a} + = S_{l_a^a l_b^b}^{e_1^a, d_b^1} H_{d_b^b, d_a^a}^{l_a^a l_b^1}$$

$$(420) 228.44.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d^a}^{e_2^a}$$

$$(421) \qquad 230.44.1.1: Z_{d_1^a}^{e_1^a} + = S_{l_1^a l_2^a}^{e_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a l_2^a} \cdot -1.$$

$$(422) 230.44.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2}^{e_1^a, d_1^a} Z_{d_2^a}^{e_2^a}$$

$$(423) \qquad 42.13.1.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} H_{d_1^a}^{e_2^a}$$

$$(424) \qquad 167.37.1.1: Z_{m_1^a}^{l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$$

$$(425) \qquad 167.37.2.0: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a}e_{2}^{a}} + = S_{m_{1}^{a},l_{1}^{a}}^{e_{1}^{a}}Z_{m_{2}^{a}}^{l_{1}^{a}}$$

$$(426) 171.37.1.1: Z_{m_1^a}^{l_1^a} + = H_{m_1^a, l_1^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_1^a} \cdot -1.$$

$$(427) 171.37.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a}$$

$$(428) \qquad 345.58.1.2: Z^{l^a_1}_{d^a_1} + = H^{l^b_1, l^a_1}_{d^b_1, d^a} S^{d^b_1}_{l^b} \cdot -1.$$

$$(429) 345.58.2.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(430) \qquad 345.58.3.0: Z_{m_1^q m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a} \label{eq:mass_eq}$$

$$(431) \qquad 349.58.1.2: Z_{d_q^a}^{l_1^a} + = H_{d_q^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \cdot -1.$$

$$(432) 349.58.2.1: Z_{m_4^a}^{l_1^a} + = S_{m_4^a}^{d_1^a} Z_{d_4^a}^{l_1^a}$$

$$(433) \qquad 349.58.3.0: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a}e_{2}^{a}} + = S_{m_{1}^{a},l_{1}^{a}}^{e_{1}^{a}}Z_{m_{2}^{a}}^{l_{1}^{a}}$$

$$(434) \qquad 127.31.1.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a}^{d_1^a} H_{d_1^a}^{l_1^a} \cdot -1.$$

$$(435) \qquad 127.31.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a}$$

$$(436) \qquad 217.42.1.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_1^b}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a}$$

$$(437) 217.42.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a}$$

$$(438) \qquad 219.42.1.1: Z_{m_1^a}^{l_1^a} + = S_{m_1^a, l_2^a}^{d_1^a d_2^a} H_{d_1^a d_2^a}^{l_1^a, l_2^a} \cdot -1.$$

$$(439) \qquad 219.42.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a}^{l_1^a}$$

$$(440) \qquad 46.14.1.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} H_{m_2^a}^{l_1^a} \cdot -1.$$

$$(441) \qquad 139.33.1.1: Z_{m^a,d^b}^{e^a_1,l^b_1} + = H_{d^b_1,d^a_1}^{e^a_1,l^b_1} S_{m^a_1}^{d^a_1} \cdot -1.$$

$$(442) \qquad 139.33.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} Z_{m_2, d_1^b}^{e_2^a, l_1^b} \\ m_{m_2, d_1^b}^{e_2^a, l_1^b}$$

$$(443) \qquad 233.45.1.1: Z_{m_1^a, d_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_2^b}^{e_1^a, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b} \cdot 0.5$$

$$(444) \qquad 233.45.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1, l_1}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a, l_1^b}$$

$$(445) \qquad 57.16.1.0: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a}e_{2}^{a}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{a},d_{1}^{b}} H_{m_{2}^{a},d_{1}^{b}}^{e_{2}^{a},l_{1}^{b}}$$

$$(446) \qquad 141.33.1.1: Z_{m_{\alpha}^{a}, d_{\alpha}^{a}}^{e_{1}^{a}, l_{1}^{a}} + = H_{d_{\alpha}^{a}, d_{\alpha}^{a}}^{e_{1}^{a}, l_{1}^{a}} S_{m_{\alpha}^{a}}^{d_{2}^{a}} \cdot -1.$$

$$(447) \qquad 141.33.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_2^a, l_1^a}^{e_2^a, l_1^a}$$

$$(448) 238.45.1.1: Z_{m_1, d_1}^{e_1^a, l_1^a} + = S_{m_1, l_2}^{e_1^a, d_1^b} H_{d_2, d_2}^{l_1, l_1^a}$$

$$(449) 238.45.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_2^a, d_1^a}^{e_2^a, l_1^a}$$

$$(450) \qquad 241.45.1.1: Z_{m_{q}^{a}, d_{1}^{a}}^{e_{1}^{a}, l_{1}^{a}} + = S_{m_{1}^{a}, l_{2}^{a}}^{e_{1}^{a}, d_{2}^{a}} \mathcal{H}_{d_{1}^{a}, d_{2}^{a}}^{l_{1}^{a}, l_{2}^{a}} \cdot 0.5$$

$$(451) \qquad 241.45.2.0: Z_{m_1^a m_2^a}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_2^a, d_1^a}^{e_2^a, l_1^a}$$

$$(452) 59.16.1.0: Z_{m_1^1 m_2^2}^{e_1^a e_2^a} + = S_{m_1^a, l_1^a}^{e_1^a, l_1^a} H_{m_2^a, l_1^a}^{e_2^a, l_1^a}$$

$$(453) \qquad 63.18.1.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = H_{m_1^b, d_1^b}^{e_1^b e_2^b} S_{m_2^b m_3^b}^{e_3^b, d_1^b} \cdot -1.$$

$$(454) \qquad 180.39.1.1: Z_{m_{1}^{b}m_{2}^{b}m_{3}^{b}}^{e_{2}^{b},l_{1}^{b}} + = H_{m_{1}^{b},d_{1}^{b}}^{e_{1}^{b},l_{1}^{b}} S_{m_{2}^{b}m_{3}^{b}}^{e_{2}^{b},d_{1}^{b}} \cdot -1.$$

$$(455) 180.39.2.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b m_3^b}^{e_2^b e_3^b, l_1^b}$$

$$(456) \qquad 465.69.1.3: Z_{m_b^b, d_b^b}^{l_1^b, l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} Z_{m_b^b}^{d_2^b} \cdot 0.5$$

$$(457) \qquad 465.69.2.2: Z_{m_1^b m_2^b m_3^b}^{e_1^b, l_1^b, l_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_3^b, d_1^b}^{l_1^b, l_2^b}$$

$$(458) 465.69.3.1: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b m_3^b}^{e_2^b, l_1^b, l_2^b}$$

$$(459) 465.69.4.0: Z_{m_b^b m_b^b m_b^b}^{e_1^b e_2^b e_3^b} + = S_{l_b^b}^{e_1^b} Z_{m_b^a m_b^b m_b^b}^{e_2^b e_3^b, l_1^b}$$

$$(460) \qquad 370.61.1.2: Z_{m_b^b m_b^b m_3^b}^{e_b^l, l_b^b, l_b^b} + = S_{m_b^b m_b^b}^{e_b^l, d_b^l} H_{m_b^b, d_b^b}^{l_b^l, l_b^b} \cdot -0.5$$

$$(461) 370.61.2.1: Z_{m_l^b m_j^b m_3^b}^{e_l^b e_j^b, l_1^b} + = S_{l_2^b}^{e_l^b} Z_{m_l^b m_2^b m_3^b}^{e_l^b, l_1^b, l_2^b}$$

$$(462) 370.61.3.0: Z_{m_l^b m_b^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{l_l^b}^{e_1^b} Z_{m_l^b m_b^b m_3^b}^{e_2^b e_3^b, l_1^b}$$

$$(463) \qquad 350.59.1.2: Z_{m_1^b,d_1^b}^{e_1^b,l_1^b} + = H_{d_1^b,d_2^b}^{e_1^b,l_1^b} S_{m_1^b}^{d_2^b} \cdot -1.$$

$$(464) \qquad 350.59.2.1: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_3^b, d_1^b}^{e_2^b, l_1^b}$$

$$(465) \qquad 350.59.3.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b m_3^b}^{e_2^b e_3^b, l_1^b}$$

$$(466) 398.64.1.2: Z_{m_b^b, d_b^b}^{e_b^b, l_b^b} + = S_{m_b^b, l_b^b}^{e_b^b, d_b^b} H_{d_b^b, d_b^b}^{l_b^b, l_b^b}$$

$$(467) \qquad 398.64.2.1: Z_{m_1^b m_2^b m_3^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_3^b, d_1^b}^{e_2^b, l_1^b}$$

$$(468) \qquad 398.64.3.0: Z^{e_1^b e_2^b e_3^b}_{m_1^b m_2^b m_3^b} + = S^{e_1^b}_{l_1^b} Z^{e_2^b e_3^b, l_1^b}_{m_1^b m_2^b m_3^b}$$

$$(469) \qquad 402.64.1.2: Z_{m_{l}^{b}, d_{1}^{b}}^{e_{l}^{b}, l_{1}^{b}} + = S_{m_{l}^{b}, l_{1}^{a}}^{e_{l}^{b}, d_{1}^{a}} H_{d_{l}^{b}, d_{1}^{a}}^{l_{1}^{b}, l_{1}^{a}}$$

$$(470) \qquad 402.64.2.1: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_3^b, d_1^b}^{e_2^b, l_1^b}$$

$$(471) \qquad 402.64.3.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^b m_2^b m_3^b}^{e_2^b e_3^b, l_1^b}$$

$$(472) \qquad 172.38.1.1: Z_{m_{b}^{b}, d_{b}^{b}}^{e_{b}^{b}} += H_{d_{b}^{b}, d_{b}^{b}}^{e_{b}^{b}} Z_{m_{b}^{b}}^{d_{b}^{b}}$$

$$(473) \qquad 172.38.2.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_3^b, d_1^b}^{e_2^b e_3^b}$$

$$(474) \qquad 258.48.1.1: Z_{m_b^b, d_b^b}^{e_b^b e_b^b} + = H_{d_b^b, d_b^b}^{e_b^b, l_b^b} S_{m_b^b, l_b^b}^{e_b^b, d_b^b}$$

$$(475) 258.48.2.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_3^b, d_1^b}^{e_2^b e_3^b}$$

$$(476) 262.48.1.1: Z_{m_1^b, d_1^b}^{e_1^b e_2^b} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^b, l_1^a}^{e_2^b, d_1^a}$$

$$(477) \qquad 262.48.2.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_3^b, d_1^b}^{e_2^b e_3^b}$$

$$(478) \qquad 438.66.1.2: Z_{m_1^b, d_1^b}^{l_1^b l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b l_2^b} S_{m_1^b}^{d_2^b}$$

$$(479) 438.66.2.1: Z_{m_b^b, d_b}^{e_b^b e_b^b} + = S_{l_b^b l_b^b}^{e_b^b e_b^b} Z_{m_b^b, d_b^b}^{l_b^b l_b^b}$$

$$(480) \qquad 438.66.3.0: Z_{m_b^b m_b^b m_3^b}^{e_b^b e_2^b e_3^b} + = S_{m_b^b m_b^b}^{e_b^b d_b^b} Z_{m_3^b, d_1^b}^{e_2^b e_3^b}$$

$$(481) \qquad 298.50.1.1: Z_{m_b^b, d_b^b}^{e_b^b e_b^b} + = S_{l_b^b l_b^b}^{e_b^b e_b^b} H_{m_b^b, d_b^b}^{l_b^b l_b^b} \cdot -1.$$

$$(482) \qquad 298.50.2.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_3^b, d_1^b}^{e_2^b e_3^b}$$

$$(483) \qquad 250.47.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{d_1^b d_2^b}^{e_1^b, l_1^b} S_{m_1^b m_2^b}^{d_1^b d_2^b}$$

$$(484) \qquad 250.47.2.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_3^b}^{e_3, l_1^b}$$

$$(485) \qquad 204.41.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{m_1^b m_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{e_1^b}$$

$$(486) 204.41.2.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_3^b}^{e_3^b, l_1^b} Z_{m_2^b m_3^b}^{e_3^b, l_1^b}$$

$$(487) 192.40.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{m_1^b, d_1^b}^{e_1^b, l_1^b} S_{m_2^b}^{d_1^b}$$

$$(488) \qquad 192.40.2.0: Z_{m_{l}^{b}m_{b}^{b}m_{3}^{b}}^{e_{l}^{b}e_{b}^{b}e_{3}^{b}} + = S_{m_{l}^{b}, l_{l}^{b}}^{e_{l}^{b}e_{b}^{b}} Z_{m_{b}^{b}m_{3}^{b}}^{e_{3}^{b}, l_{1}^{b}} Z_{m_{b}^{b}m_{3}^{b}}^{e_{3}^{b}, l_{1}^{b}}$$

$$(489) \qquad 390.63.1.2: Z^{l_1^b, l_2^b}_{m_1^b m_2^b} + = H^{l_1^b, l_2^b}_{d_1^b d_2^b} S^{d_1^b d_2^b}_{m_1^b m_2^b}$$

$$(490) \qquad 390.63.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b} \label{eq:constraint}$$

$$(491) \qquad 390.63.3.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_3^b}^{e_3, l_1^b}$$

$$(492) \qquad 378.62.1.2: Z^{l_1^b, l_2^b}_{m_1^b m_2^b} + = H^{l_1^b, l_2^b}_{m_1^b, d_1^b} S^{d_1^b}_{m_2^b}$$

$$(493) \qquad 378.62.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b} \label{eq:493}$$

$$(494) \qquad 378.62.3.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_3^b}^{e_3, l_1^b}$$

$$(495) \qquad 473.70.1.3: Z_{m_{1}^{b}, d_{1}^{b}}^{l_{1}, l_{2}^{b}} + = H_{d_{1}^{b}, d_{2}^{b}}^{l_{1}, l_{2}^{b}} S_{m_{1}^{b}}^{d_{2}^{b}} \cdot 0.5$$

$$(496) \qquad 473.70.2.2: Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{l_1^b, l_2^b}$$

$$(497) \qquad 473.70.3.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$$

$$(498) \qquad 473.70.4.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_3^b}^{e_3^b, l_1^b}$$

$$(499) \qquad 362.60.1.2: Z_{m_b^b, d_b^b}^{e_b^b, l_b^b} + = H_{d_b^b, d_b^b}^{e_b^b, l_b^b} S_{m_b^b}^{d_b^b} \cdot 0.5$$

$$(500) 362.60.2.1: Z_{m_b^b m_b^b}^{e_b^l, l_b^l} + = S_{m_b^b}^{d_b^l} Z_{m_b^b, d_b^b}^{e_b^l, l_b^l}$$

$$(501) \qquad 362.60.3.0: Z_{m_1^b m_2^b m_2^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_2^b}^{e_1^b e_2^b} Z_{m_2^b m_2^b}^{e_3^b, l_1^b}$$

$$(502) \qquad 446.67.1.2: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, l_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b}$$

$$(503) \qquad 446.67.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(504) \qquad 446.67.3.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_3^b}^{e_3^b, l_1^b}$$

$$(505) \qquad 454.67.1.2: Z_{d_{\mathfrak{q}}^{l}}^{l_{\mathfrak{p}}^{l}} + = H_{d_{\mathfrak{p}}^{l}, d_{\mathfrak{q}}^{a}}^{l_{\mathfrak{p}}^{l}, l_{\mathfrak{q}}^{a}} S_{l_{\mathfrak{q}}^{a}}^{d_{\mathfrak{q}}^{a}}$$

$$(506) \qquad 454.67.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(507) \qquad 454.67.3.0: Z_{m_{1}^{b}m_{2}^{b}m_{3}^{b}}^{e_{1}^{b}e_{2}^{b}e_{3}^{b}} + = S_{m_{1}^{b}, l_{1}^{b}}^{e_{1}^{b}e_{2}^{b}} Z_{m_{2}^{b}m_{3}^{b}}^{e_{3}^{b}, l_{1}^{b}}$$

$$(508) \qquad 242.46.1.1: Z_{m_p^b m_p^b}^{e_1^b, l_1^b} + = S_{m_p^b m_p^b}^{e_1^b, d_1^b} H_{d_1^b}^{l_1^b}$$

$$(509) 242.46.2.0: Z_{m_t^b m_b^b m_3^b}^{e_b^b e_b^b} + = S_{m_t^b, l_t^b}^{e_t^b e_b^b} Z_{m_2^b m_3^b}^{e_3^b, l_1^b} Z_{m_2^b m_3^b}^{e_3^b, l_1^b}$$

$$(510) \qquad 418.65.1.2: Z_{m_1^b,d_2^b}^{l_1^b,l_2^b} + = H_{d_1^b,d_2^b}^{l_1^b,l_2^b} S_{m_1^b}^{d_2^b} \cdot -1.$$

$$(511) \qquad 418.65.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_2^b}^{e_1^b, d_1^b} Z_{m_2^b, d_1^b}^{l_1^b, l_2^b}$$

$$(512) 418.65.3.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_2^b}^{e_3^b, l_1^b} Z_{m_2^b m_2^b}^{e_3^b, l_1^b}$$

$$(513) \qquad 278.49.1.1: Z_{m_b^b m_b^b}^{e_b^l, l_b^l} + = S_{m_b^b, l_b^b}^{e_b^l, d_b^l} H_{m_b^b, d_b^b}^{l_b^b, l_b^b}$$

$$(514) \qquad 278.49.2.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_3^b}^{e_3^b, l_1^b}$$

$$(515) \qquad 422.65.1.2: Z^{l_1^b, l_1^a}_{m_1^b, d_1^a} + = H^{l_1^b, l_1^a}_{d_1^b, d_1^a} S^{d_1^b}_{m_1^b}$$

$$(516) \qquad 422.65.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{l_1^b, l_1^a}$$

$$(517) \qquad 422.65.3.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_2^b m_3^b}^{e_3^b, l_1^b}$$

$$(518) \qquad 282.49.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, d_1^a} H_{m_2^b, d_1^a}^{l_1^b, l_1^a}$$

$$(519) \qquad 282.49.2.0: Z^{e_1^b e_2^b e_3^b}_{m_1^b m_2^b m_3^b} + = S^{e_1^b e_2^b}_{m_1^b, l_1^b} Z^{e_3^b, l_1^b}_{m_2^b m_3^b}$$

$$(520) \qquad 71.19.1.0: Z_{m_1^b m_2^b m_3^b}^{e_1^b e_2^b e_3^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} H_{m_2^b m_3^b}^{e_3^b, l_1^b}$$

$$(521) \qquad 64.18.1.0: Z_{m_1^q m_1^b m_2^b}^{e_1^1 e_2^b} + = H_{m_1^b, d_1^b}^{e_1^b e_2^b} S_{m_1^a m_2^b}^{e_1^a, d_1^b}$$

$$(522) \qquad 65.18.1.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = H_{m_1^b, d_1^a}^{e_1^a e_1^b} S_{m_1^a m_2^b}^{e_2^b, d_1^a}$$

$$(523) \qquad 67.18.1.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = H_{m_1^a, d_1^b}^{e_1^a e_1^b} S_{m_1^b m_2^b}^{e_2^b, d_1^b} \cdot -1.$$

$$(524) 188.39.1.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = H_{m_1^a, d_1^b}^{e_1^a, l_1^b} S_{m_1^b m_2^b}^{e_1^b, d_1^b}$$

$$(525) \qquad 188.39.2.0: Z_{m_{q}^{q}m_{p}^{b}m_{p}^{b}}^{e_{1}^{a}e_{2}^{b}} + = S_{l_{p}^{b}}^{e_{1}^{b}} Z_{m_{q}^{q}m_{p}^{b}m_{p}^{b}}^{e_{1}^{a}e_{2}^{b}, l_{1}^{b}}$$

$$(526) 466.69.1.3: Z_{m_b^b, d_1^b}^{l_1^b, l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{m_1^b}^{d_2^b} \cdot 0.5$$

$$(527) \qquad 466.69.2.2: Z_{m_1^a m_1^b m_2^b}^{e^a, l_1^b, l_2^b} + = S_{m_1^a m_1^b}^{e^a, d_1^b} Z_{m_2^b, d_1^b}^{l_1^b, l_2^b}$$

$$(528) 466.69.3.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a, l_1^b, l_2^b}$$

$$(529) \qquad 466.69.4.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}e_{2}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}}Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b},l_{1}^{b}}$$

$$(530) \qquad 371.61.1.2: Z_{m_1^a m_1^b m_2^b}^{e_1^a, l_1^b, l_2^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{m_2^b, d_1^b}^{l_1^b, l_2^b} \cdot -0.5$$

$$(531) \qquad 371.61.2.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a, l_1^b, l_2^b}$$

$$(532) \qquad 371.61.3.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}e_{2}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}}Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}, l_{1}^{b}}$$

$$(533) \qquad 358.59.1.2: Z_{m_a^a, d_b^b}^{e_1^a, l_1^b} + = H_{d_b^b, d_a^a}^{e_1^a, l_1^b} S_{m_a^a}^{d_a^a} \cdot -1.$$

$$(534) \qquad 358.59.2.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{e_1^a, l_1^b}$$

$$(535) 358.59.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(536) 399.64.1.2: Z_{m_1, d_1}^{e_1^1, l_1^b} + = S_{m_1, l_2}^{e_1^1, d_2^b} H_{d_1^b, d_2^b}^{l_1^b, l_2^b}$$

$$(537) \qquad 399.64.2.1: Z_{m_a^a m_b^b m_b^b}^{a_1^a e_1^b, l_1^b} + = S_{m_b^b m_b^b}^{e_1^b, d_1^b} Z_{m_a^a, d_b^b}^{e_1^a, l_1^b}$$

$$(538) 399.64.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(539) \qquad 403.64.1.2: Z_{m_1, d_1}^{e_1^a, l_1^b} + = S_{m_1, l_1}^{e_1^a, d_1^a} H_{d_1, d_1}^{l_1^b, l_1^a}$$

$$(540) \qquad 403.64.2.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{e_1^a, l_1^b}$$

$$(541) \qquad 403.64.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(542) \qquad 356.59.1.2: Z_{m_b^b, d_1^a}^{e_1^a, l_b^1} + = H_{d_b^b, d_a^a}^{e_1^a, l_b^1} S_{m_b^1}^{d_b^1}$$

$$(543) \qquad 356.59.2.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_1^a, l_1^b}$$

$$(544) \qquad 356.59.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(545) \qquad 406.64.1.2: Z_{m_{1}^{b}, d_{1}^{a}}^{e_{1}^{a}, l_{1}^{b}} + = S_{m_{1}^{b}, l_{1}^{a}}^{e_{1}^{a}, d_{1}^{b}} H_{d_{1}^{b}, d_{1}^{a}}^{l_{1}^{b}, l_{1}^{a}} \cdot -1.$$

$$(546) \qquad 406.64.2.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_1^a, l_1^b}$$

$$(547) \qquad 406.64.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(548) 186.39.1.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a l_1^b l_1^b} + = S_{m_1^a m_1^b}^{e_1^b l_1^a} H_{m_2^b l_2^a}^{e_1^a l_1^b} + \frac{1}{m_2^b l_2^a} H_{m_2^b l_2^a}^{e_1^a l_1^b} H_{m_2^b l_2^a}^{e_1^a l_2^b}$$

$$(549) \qquad 186.39.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(550) 351.59.1.2: Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{m_1^b}^{d_2^b}$$

$$(551) \qquad 351.59.2.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^b, d_1^b}^{e_1^b, l_1^b}$$

$$(552) \qquad 351.59.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(553) \qquad 400.64.1.2: Z_{m_b^b, d_b^b}^{e_1^b, l_1^b} + = S_{m_b^b, l_b^b}^{e_1^b, d_2^b} H_{1, d_2^b}^{l_1^b, l_2^b} \cdot -1.$$

$$(554) \qquad 400.64.2.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^b, d_1^b}^{e_1^b, l_1^b}$$

$$(555) \qquad 400.64.3.0: Z_{m_{q}^{a}m_{q}^{b}m_{d}^{b}}^{e_{1}^{a}e_{2}^{b}} + = S_{l_{b}^{b}}^{e_{1}^{a}} Z_{m_{q}^{a}m_{b}^{b}m_{d}^{b}}^{e_{1}^{a}e_{2}^{b}, l_{1}^{b}}$$

$$(556) 404.64.1.2: Z_{m_b^b, d_b^b}^{e_b^l, l_b^l} + = S_{m_b^b, l_a^a}^{e_b^l, d_a^l} H_{d_b^b, d_a^a}^{l_b^b, l_a^a} \cdot -1.$$

$$(557) \qquad 404.64.2.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^b, d_1^b}^{e_1^b, l_1^b}$$

$$(558) 404.64.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(559) \qquad 181.39.1.1: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{m_2^b, d_1^b}^{e_1^b, l_1^b} \cdot -1.$$

$$(560) 181.39.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b, l_1^b}$$

$$(561) \qquad 184.39.1.1: Z_{m_1^a m_1^b m_2^b}^{e_1^b e_2^b, l_1^a} + = H_{m_1^a, d_1^b}^{e_1^b, l_1^a} S_{m_1^b m_2^b}^{e_2^b, d_1^b} \cdot -1.$$

$$(562) \qquad 184.39.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_2^b l_1^a}$$

(563)
$$469.69.1.3: Z_{m_1^a, d_1^b}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^a}^{d_1^a} \cdot -1.$$

$$(564) \qquad 469.69.2.2: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{b},l_{1}^{b},l_{1}^{a}} + = S_{m_{1}^{b}m_{2}^{b}}^{e_{1}^{b},d_{1}^{b}} Z_{m_{1}^{a},d_{1}^{b}}^{l_{1}^{b},l_{1}^{a}} \label{eq:eq:eq:energy}$$

$$(565) \qquad 469.69.3.1: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{b}^{l},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{2}^{b},l_{1}^{b},l_{1}^{a}}$$

$$(566) \qquad 469.69.4.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_2^b e_2^b, l_1^a}$$

$$(567) 374.61.1.2: Z_{m_1^a m_1^b m_2^b}^{e_b^b, l_1^b, l_1^a} + = S_{m_1^b m_2^b}^{e_b^b, d_1^b} H_{m_1^a, d_1^b}^{l_1^b, l_1^a}$$

$$(568) \qquad 374.61.2.1: Z_{m_1^q m_1^b m_2^b}^{e_1^b e_2^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b m_2^b}^{e_2^b, l_1^b, l_1^a}$$

$$(569) \qquad 374.61.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_1^b e_2^b, l_1^a}$$

$$(570) \qquad 467.69.1.3: Z_{m_1^b, d_1^a}^{l_1^b, l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b}$$

$$(571) 467.69.2.2: Z_{m_1^a m_1^b m_2^b}^{e_1^b, l_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, l_1^a} Z_{m_2^b, l_1^a}^{l_1^b, l_1^a}$$

$$(572) \qquad 467.69.3.1: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{2}^{b},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{2}^{b},l_{1}^{b},l_{1}^{a}}$$

$$(573) \qquad 467.69.4.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_2^b e_2^b, l_1^a}$$

$$(574) 372.61.1.2: Z_{m_1^a m_1^b m_2^b}^{e_1^b, l_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} H_{m_2^b, d_1^a}^{l_1^b, l_1^a}$$

$$(575) \qquad 372.61.2.1: Z_{m_{q}^{q}m_{b}^{q}m_{b}^{q}}^{e_{b}^{1},l_{1}^{a}} + = S_{l_{b}^{q}}^{e_{b}^{b}} Z_{m_{q}^{q}m_{b}^{q}m_{b}^{q}}^{e_{b}^{b},l_{1}^{1},l_{1}^{a}}$$

$$(576) \qquad 372.61.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_2^b l_2^b l_1^a}$$

$$(577) 354.59.1.2: Z_{m^a,d^b}^{e^b_l,l^a_1} + = H_{d^b_b,d^a}^{e^b_l,l^a_1} S_{m^a_1}^{d^a_1} \cdot -1.$$

$$(578) \qquad 354.59.2.1: Z_{m_a^a m_b^b m_b^b}^{e_b^b, l_1^a} + = S_{m_b^b m_b^b}^{e_b^b, l_1^a} Z_{m_a^a, d_b}^{e_b^b, l_1^a}$$

$$(579) 354.59.3.0: Z_{m_a m_b^1 m_b^2}^{e_1^a e_1^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_a^a m_b^b m_b^b}^{e_b^b e_b^b, l_1^a}$$

$$(580) 408.64.1.2: Z_{m_a^a, d_b^a}^{e_b^l, l_a^a} + = S_{m_a^a, l_b^a}^{e_b^l, d_a^a} H_{d_b^b, d_a^a}^{l_b^l, l_a^a} \cdot -1.$$

$$(581) \qquad 408.64.2.1: Z_{m_1^a m_1^b m_2^b}^{e_2^b, l_1^a} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{e_2^b, l_1^a}$$

$$(582) \qquad 408.64.3.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{b}e_{2}^{b}} + = S_{l_{1}^{a}}^{e_{1}^{a}} Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{2}^{b}, l_{1}^{a}}$$

$$(583) 352.59.1.2: Z_{m_b^1, d_1^a}^{e_b^1, l_1^a} + = H_{d_b^1, d_1^a}^{e_b^1, l_1^a} S_{m_b^1}^{d_b^1}$$

$$(584) \qquad 352.59.2.1: Z_{m_1^a m_1^b m_2^b}^{e_2^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_2^b, l_1^a}$$

$$(585) \qquad 352.59.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_1^b e_2^b, l_1^a}$$

$$(586) \qquad 410.64.1.2: Z_{m_b^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_b^b, l_1^b}^{e_1^b, d_1^b} H_{d_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(587) \qquad 410.64.2.1: Z_{m_1^a m_1^b m_2^b}^{e_2^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, l_1^a}^{e_2^b, l_1^a}$$

$$(588) \qquad 410.64.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_1^b e_2^b, l_1^a}$$

$$(589) \qquad 414.64.1.2: Z_{m_b^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_b^b, l_2^a}^{e_1^b, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a}$$

$$(590) 414.64.2.1: Z_{m_1^q m_1^b m_2^b}^{e_1^b e_2^b, l_1^a} + = S_{m_1^q m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_2^b, l_1^a}$$

$$(591) 414.64.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_2^b l_2^b l_1^a}$$

$$(592) \qquad 182.39.1.1: Z_{m_1^a m_1^b m_2^b}^{e_1^b e_2^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} H_{m_2^b, d_1^a}^{e_2^b, l_1^a}$$

$$(593) \qquad 182.39.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b m_2^b}^{e_1^b e_2^b, l_1^a}$$

$$(594) \qquad 176.38.1.1: Z_{m_1^a,d_1^b}^{e_1^a e_1^b} + = H_{d_1^b,d_1^a}^{e_1^a e_1^b} S_{m_1^a}^{d_1^a} \cdot -1.$$

$$(595) \qquad 176.38.2.0: Z_{m_1^a m_2^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b m_2^b}^{e_1^b d_1^b} Z_{m_1, d_1^b}^{e_1^a e_2^b}$$

$$(596) 259.48.1.1: Z_{m_1,d_1}^{e_1^a e_1^b} + = H_{d_1^b,d_2^b}^{e_1^b,l_1^b} S_{m_1^a,l_2^b}^{e_1^a,d_2^b}$$

$$(597) \qquad 259.48.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b m_2^b}^{e_1^b d_1^b} Z_{m_1^a d_1^b}^{e_1^a e_2^b}$$

$$(598) 263.48.1.1: Z_{m_1^a, d_1^b}^{e_1^a e_1^b} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^a, l_1^a}^{e_1^a, d_1^a}$$

$$(599) \qquad 263.48.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{e_1^a e_2^b}$$

$$(600) \qquad 268.48.1.1: Z_{m_1^a, d_1^b}^{e_1^a e_1^b} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^a, l_1^b}^{e_1^b, d_1^a} \cdot -1.$$

$$(601) \qquad 268.48.2.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}e_{2}^{b}} + = S_{m_{1}^{b}m_{2}^{b}}^{e_{1}^{b},d_{1}^{b}} Z_{m_{1}^{a},d_{1}^{b}}^{e_{1}^{a}e_{2}^{b}}$$

$$(602) \qquad 442.66.1.2: Z_{m_1^a, d_1^b}^{l_1^a l_1^b} + = H_{d_1^b, d_1^a}^{l_1^a l_1^b} S_{m_1^a}^{d_1^a} \cdot -1.$$

$$(603) \qquad 442.66.2.1: Z_{m_1^a,d_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a,d_1^b}^{l_1^a l_1^b}$$

$$(604) \qquad 442.66.3.0: Z_{m_1^a m_1^b m_2^b}^{a_1^a e_1^b e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_1, d_1^b}^{e_1^a e_2^b}$$

$$(605) \qquad 302.50.1.1: Z_{m_1, d_1}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} H_{l_1^a l_1^b}^{l_1^a l_1^b}$$

$$(606) \qquad 302.50.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{e_1^a e_2^b}$$

(607)
$$174.38.1.1: Z_{m_b^1, d_1^a}^{e_1^a e_1^b} + = H_{d_b^1, d_1^a}^{e_1^a e_1^b} S_{m_b^1}^{d_1^b}$$

$$(608) \qquad 174.38.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^b d_1^a} Z_{m_2^b, d_1^a}^{e_1^a e_2^b}$$

$$(609) 266.48.1.1: Z_{m^b,d^a}^{e^1_1} + = H_{d^b,d^a}^{e^b_1,l^1_a} S_{m^b,l^a}^{e^1_a,d^b_1} \cdot -1.$$

$$(610) \qquad 266.48.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_1^a e_2^b}$$

$$(611) \qquad 270.48.1.1: Z_{m_b^b, d_1^a}^{e_1^a e_1^b} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_b^b, l_1^b}^{e_1^b, d_1^b}$$

$$(612) \qquad 270.48.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_1^a e_2^b}$$

$$(613) \qquad 274.48.1.1: Z_{m_1^b, d_1^a}^{e_1^a e_1^b} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{m_1^b, l_1^a}^{e_1^b, d_2^a} \cdot -1.$$

$$(614) \qquad 274.48.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_1^a e_2^b}$$

$$(615) \qquad 440.66.1.2: Z_{m_{1}^{b},d_{1}^{a}}^{l_{1}^{a}l_{0}^{b}} + = H_{d_{1}^{b},d_{1}^{a}}^{l_{1}^{a}l_{0}^{b}} S_{m_{1}^{b}}^{d_{1}^{b}}$$

$$(616) \qquad 440.66.2.1: Z_{m_{l}^{b},d_{l}^{a}}^{e_{l}^{a}e_{l}^{b}} + = S_{l_{l}^{a}l_{l}^{b}}^{e_{l}^{a}e_{l}^{b}} Z_{m_{l}^{b},d_{l}^{a}}^{l_{l}^{a}l_{l}^{b}}$$

$$(617) \qquad 440.66.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^b, d_1^a}^{e_1^a e_2^b}$$

$$(618) \qquad 300.50.1.1: Z_{m_{1}^{b},d_{1}^{a}}^{e_{1}^{a}e_{1}^{b}} + = S_{l_{1}^{a}l_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} H_{m_{1}^{b},d_{1}^{a}}^{l_{1}^{a}l_{1}^{b}}$$

$$(619) 300.50.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^b d_1^a} Z_{m_2^b, q_1^a}^{e_1^a e_2^b}$$

$$(620) \qquad 254.47.1.1: Z_{m_{q}^{a}m_{b}^{\dagger}}^{e_{1}^{a},l_{1}^{b}} + = H_{d_{1}^{a}d_{2}^{\dagger}}^{e_{1}^{a},l_{1}^{b}} S_{m_{q}^{a}m_{b}^{\dagger}}^{d_{1}^{a}d_{1}^{b}} \cdot -1.$$

$$(621) \qquad 254.47.2.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b}e_{2}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(622) \qquad 208.41.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = H_{m_1^a m_1^b}^{l_1^b, l_1^a} S_{l_1^a}^{e_1^a} \cdot -1.$$

$$(623) \qquad 208.41.2.0: Z_{m_{q}^{a}m_{q}^{b}m_{p}^{b}}^{e_{1}^{a}e_{2}^{b}} + = S_{m_{q}^{b},l_{p}^{b}}^{e_{1}^{b}e_{2}^{b}} Z_{m_{q}^{a}m_{p}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(624) 198.40.1.1: Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}} + = H_{m_{1}^{b},d_{1}^{a}}^{e_{1}^{a},l_{1}^{b}} S_{m_{1}^{a}}^{d_{1}^{a}}$$

$$(625) \qquad 198.40.2.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b}e_{2}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(626) 200.40.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = H_{m_1^a, l_1^b}^{e_1^a, l_1^b} S_{m_1^b}^{d_1^b} \cdot -1.$$

$$(627) 200.40.2.0: Z_{m_q^a m_b^1 m_b^a}^{e_1^a e_1^b e_2^b} + = S_{m_b^b, l_b}^{e_1^b e_2^b} Z_{m_q^a m_b^a}^{e_1^a, l_b^1}$$

$$(628) 384.62.1.2: Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}} + = H_{m_{1}^{b},d_{1}^{a}}^{l_{1}^{b},l_{1}^{a}} S_{m_{1}^{a}}^{d_{1}^{a}}$$

(629)
$$384.62.2.1: Z_{m_1^a m_2^b}^{e_1^a, l_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^b}^{l_1^b, l_1^a}$$

$$(630) \qquad 384.62.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

$$(631) 386.62.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1.$$

$$(632) \qquad 386.62.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{l_{1}^{a}}^{e_{1}^{a}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(633) \qquad 386.62.3.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{2}^{b}}Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(634) 477.70.1.3: Z_{m_b^l, d_1^a}^{l_b^l, l_1^a} + = H_{d_b^l, d_1^a}^{l_b^l, l_1^a} S_{m_b^l}^{d_b^l}$$

$$(635) 477.70.2.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, l_1^a}^{l_1^b, l_1^a}$$

$$(636) \qquad 477.70.3.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{l_{1}^{a}}^{e_{1}^{a}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1},l_{1}^{a}}$$

$$(637) \qquad 477.70.4.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b}e_{2}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(638) \qquad 394.63.1.2: Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}} + = S_{m_{1}^{a}m_{1}^{b}}^{d_{1}^{a}d_{1}^{b}} H_{d_{1}^{a}d_{1}^{b}}^{l_{1}^{b},l_{1}^{a}} \cdot -1.$$

$$(639) \qquad 394.63.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{l_1^b, l_1^a}$$

$$(640) \qquad 394.63.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

$$(641) \qquad 366.60.1.2: Z_{m_b^b, d_i^a}^{e_1^a, l_b^b} + H_{d_b, d_i^a}^{e_1^a, l_b^b} S_{m_b^b}^{d_b^b}$$

$$(642) \qquad 366.60.2.1: Z^{e^a_1, l^b_1}_{m^a_1 m^b_1} + = S^{d^a_1}_{m^a_1} Z^{e^a_1, l^b_1}_{m^b_1, d^a_1}$$

$$(643) \qquad 366.60.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

(644)
$$447.67.1.2: Z_{d_b^b}^{l_b^1} + = H_{d_b^b, d_b^b}^{l_b^1, l_b^b} S_{l_b^b}^{d_b^b} \cdot -1.$$

$$(645) \qquad 447.67.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(646) 447.67.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

$$(647) \qquad 455.67.1.2: Z_{d^b_1}^{l^b_1} + = H_{d^b_1, d^a_1}^{l^b_1, l^a_1} S_{l^a_1}^{d^a_1} \cdot -1.$$

$$(648) \qquad 455.67.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},d_{1}^{b}} Z_{d_{1}^{b}}^{l_{1}^{b}}$$

$$(649) \qquad 455.67.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

$$(650) \qquad 243.46.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{d_1^b}^{l_1^b} \cdot -1.$$

$$(651) \qquad 243.46.2.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b}e_{2}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(652) \qquad 426.65.1.2: Z_{m_1^a,d_1^b}^{l_1^b,l_1^a} + = H_{d_1^b,d_1^a}^{l_1^b,l_1^a} S_{m_1^a}^{d_1^a} \cdot -1.$$

$$(653) \qquad 426.65.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{a},d_{1}^{b}} Z_{m_{1}^{b},l_{1}^{a}}^{l_{1}^{b},l_{1}^{a}}$$

$$(654) \qquad 426.65.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

$$(655) 286.49.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} H_{m_1, d_1^b}^{l_1^b, l_1^a} H_{m_1, d_1^b}^{l_1^b, l_1^a}$$

$$(656) \qquad 286.49.2.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b}e_{2}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(657) \qquad 419.65.1.2: Z_{m_b^b, d_b^b}^{l_b^1, l_b^b} + = H_{d_b^b, d_b^b}^{l_b^1, l_b^b} S_{m_b^b}^{d_b^b}$$

$$(658) \qquad 419.65.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{m_{1}^{a},l_{2}^{b}}^{e_{1}^{a},d_{1}^{b}} Z_{m_{1}^{b},d_{1}^{b}}^{l_{1}^{b},l_{2}^{b}}$$

$$(659) \qquad 419.65.3.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{2}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}}$$

$$(660) \qquad 279.49.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_2^b}^{e_1^a, d_1^b} H_{m_1^b, d_1^b}^{l_1^b, l_2^b} \cdot -1.$$

$$(661) \qquad 279.49.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

$$(662) \qquad 423.65.1.2: Z_{m_b^l,d_a^a}^{l_b^l,l_a^a} + = H_{d_b^l,d_a^a}^{l_b^l,l_a^a} S_{m_b^b}^{d_b^l} \cdot -1.$$

$$(663) 423.65.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(664) 423.65.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

$$(665) \qquad 283.49.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} H_{m_1^b, d_1^a}^{l_1^b, l_1^a} \cdot -1.$$

$$(666) \qquad 283.49.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^b}^{e_1^b e_2^b} Z_{m_1^a m_2^b}^{e_1^a, l_1^b}$$

$$(667) \qquad 75.19.1.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b}e_{2}^{b}} H_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}} \cdot -1.$$

(668)
$$173.38.1.1: Z_{m_b, d_b}^{e_b^1 e_b^2} + = H_{d_b, d_b}^{e_b^1 e_b^2} S_{m_b}^{d_b^2}$$

$$(669) 173.38.2.0: Z_{m_a^a m_b^b m_a^b}^{e_1^a e_1^b e_2^b} + = S_{m_a^a m_b^b}^{e_1^a, d_1^b} Z_{m_b^b, d_1^b}^{e_1^b e_2^b}$$

$$(670) \qquad 260.48.1.1: Z_{m_b^b, d_1^b}^{e_1^b e_2^b} + = H_{d_b^b, d_2^b}^{e_1^b, l_1^b} S_{m_b^b, l_1^b}^{e_2^b, d_2^b}$$

$$(671) \qquad 260.48.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^b, d_1^b}^{e_2^b}$$

$$(672) \qquad 264.48.1.1: Z_{m_{\downarrow}^{b}, d_{\downarrow}^{a}}^{e_{\downarrow}^{b}e_{\downarrow}^{b}} + = H_{d_{\downarrow}^{b}, d_{\downarrow}^{a}}^{e_{\downarrow}^{b}, l_{\downarrow}^{a}} S_{m_{\downarrow}^{b}, l_{\downarrow}^{a}}^{e_{\downarrow}^{b}, d_{\downarrow}^{a}}$$

$$(673) 264.48.2.0: Z_{m_a^a m_b^b m_a^b}^{e_1^a e_1^b e_2^b} + = S_{m_a^a m_b^a}^{e_1^a, d_1^b} Z_{m_b^b, d_b^b}^{e_2^b e_2^b}$$

$$(674) \qquad 439.66.1.2: Z_{m_b^l, d_1^b}^{l_1^l l_2^b} + = H_{d_b^l, d_2^b}^{l_1^l l_2^b} S_{m_b^l}^{d_2^b}$$

$$(675) \qquad 439.66.2.1: Z_{m_{l}^{b},d_{l}^{b}}^{e_{l}^{b}} + = S_{l_{l}^{b}l_{l}^{b}}^{e_{l}^{b}e_{l}^{b}} Z_{m_{l}^{b},d_{l}^{b}}^{l_{l}^{b}l_{l}^{b}}$$

$$(676) \qquad 439.66.3.0: Z_{m_1^a m_1^b m_2^b}^{a_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^b, d_1^b}^{e_1^b e_2^b}$$

$$(677) \qquad 299.50.1.1: Z_{m_b^b, d_b^b}^{e_b^b e_b^b} + = S_{l_b^b l_b^b}^{e_b^b e_b^b} H_{m_b^b, d_b^b}^{l_b^b l_b^b} \cdot -1.$$

$$(678) \qquad 299.50.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^b, d_1^b}^{e_1^b e_2^b}$$

$$(679) \qquad 252.47.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{d_1^a d_1^b}^{e_1^b, l_1^a} S_{m_1^a m_1^b}^{d_1^a d_1^b} \cdot -1.$$

$$(680) \qquad 252.47.2.0: Z_{m_1^a m_2^b m_2^b}^{e_1^a e_2^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(681) \qquad 206.41.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{m_1^a m_1^b}^{l_1^b, l_1^a} S_{l_1^b}^{e_1^b}$$

$$(682) 206.41.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(683) \qquad 194.40.1.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = H_{m_{1}^{b},d_{1}^{a}}^{e_{1}^{b},l_{1}^{a}} S_{m_{1}^{a}}^{d_{1}^{a}}$$

$$(684) \qquad 194.40.2.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{2}^{b},l_{1}^{a}}$$

$$(685) \qquad 196.40.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{m_1^a, l_1^b}^{e_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1.$$

$$(686) \qquad 196.40.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(687) \qquad 380.62.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = H_{m_1^b, l_1^a}^{l_1^b, l_1^a} S_{m_1^a}^{d_1^a} \cdot -1.$$

$$(688) \qquad 380.62.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{l_1^b, l_1^a}$$

$$(689) \qquad 380.62.3.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{1}^{a}m_{2}^{b}}^{e_{2}^{b},l_{1}^{a}}$$

$$(690) \qquad 382.62.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b}$$

$$(691) \qquad 382.62.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{l_1^b, l_1^a}$$

$$(692) 382.62.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(693) \qquad 475.70.1.3: Z_{m_{l}^{b},d_{1}^{a}}^{l_{l}^{b},l_{1}^{a}} + = H_{d_{l}^{b},d_{1}^{a}}^{l_{l}^{b},l_{1}^{a}} S_{m_{l}^{b}}^{d_{l}^{b}} \cdot -1.$$

$$(694) \qquad 475.70.2.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(695) \qquad 475.70.3.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(696) \qquad 475.70.4.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(697) \qquad 392.63.1.2: Z_{m_1^a m_2^b}^{l_1^b, l_1^a} + = S_{m_1^a m_2^b}^{d_1^a d_1^b} H_{d_1^a d_2^b}^{l_1^b, l_1^a}$$

$$(698) 392.63.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{l_1^b, l_1^a}$$

$$(699) \qquad 392.63.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(700) \qquad 364.60.1.2: Z_{m_b^b, d_1^a}^{e_b^b, l_1^a} + = H_{d_b^b, d_1^a}^{e_b^b, l_1^a} S_{m_b^b}^{d_b^b}$$

$$(701) \qquad 364.60.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a}$$

$$(702) \qquad 364.60.3.0: Z_{m_{q}^{a}m_{q}^{b}m_{p}^{b}}^{e_{1}^{a}e_{2}^{b}} + = S_{m_{q}^{b},l_{q}^{a}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{q}^{a}m_{p}^{b}}^{e_{2}^{b},l_{1}^{a}}$$

$$(703) \qquad 450.67.1.2: Z^{l^a_1}_{d^a_1} + = H^{l^b_1, l^a_1}_{d^b_1, d^a} S^{d^b_1}_{l^b_1} \cdot -1.$$

$$(704) \qquad 450.67.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(705) \qquad 450.67.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(706) 458.67.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{d_2^a} \cdot -1.$$

$$(707) \qquad 458.67.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(708) \qquad 458.67.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(709) \qquad 246.46.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} H_{d_1^a}^{l_1^a} \cdot -1.$$

$$(710) \qquad 246.46.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(711) \qquad 430.65.1.2: Z^{l_1^{l_1^{l_1^{l_1^{a}}}}}_{m_1^{a},d_1^{b}} + = H^{l_1^{l_1^{l_1^{a}}}}_{d_1^{b},d_1^{a}} S^{d_1^{a}}_{m_1^{a}}$$

$$(712) \qquad 430.65.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b},d_{1}^{b}} Z_{n_{1}^{b},l_{1}^{a}}^{l_{1}^{b},l_{1}^{a}}$$

$$(713) \qquad 430.65.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(714) \qquad 290.49.1.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{m_{1}^{b},l_{1}^{b}}^{e_{1}^{b},l_{1}^{b}} H_{m_{1}^{a},d_{1}^{b}}^{l_{1}^{b},l_{1}^{a}} \cdot -1.$$

$$(715) \qquad 290.49.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

(716)
$$434.65.1.2: Z_{m_1^a, d_1^a}^{l_1^a, l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{m_1^a}^{d_2^a} \cdot -1.$$

$$(717) \qquad 434.65.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, d_1^a} Z_{m_1^a, d_1^a}^{l_1^a, l_2^a}$$

$$(718) \qquad 434.65.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(719) 294.49.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, d_1^a} H_{m_1^a, d_1^a}^{l_1^a, l_2^a}$$

$$(720) \qquad 294.49.2.0: Z_{m_1^q m_1^b m_2^b}^{e_1^a e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(721) \qquad 428.65.1.2: Z^{l_1^b, l_1^a}_{m_1^b, d_1^a} + = H^{l_1^b, l_1^a}_{d_1^b, d_1^a} S^{d_1^b}_{m_1^b}$$

$$(722) \qquad 428.65.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{b},d_{1}^{a}} Z_{m_{1}^{b},d_{1}^{a}}^{l_{1}^{b},l_{1}^{a}}$$

$$(723) \qquad 428.65.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_2^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(724) 288.49.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} H_{m_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(725) \qquad 288.49.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^b}^{e_2^b, l_1^a}$$

$$(726) \qquad 73.19.1.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{a}e_{1}^{b}} H_{m_{1}^{a}m_{2}^{b}}^{e_{2}^{b},l_{1}^{a}} \cdot -1.$$

$$(727) \qquad 251.47.1.1: Z_{m_p^b m_p^b}^{e_l^b, l_l^b} + = H_{d_l^b d_2^b}^{e_l^b, l_l^b} S_{m_l^b m_2^b}^{d_l^b d_2^b}$$

$$(728) \qquad 251.47.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(729) 205.41.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{m_1^b m_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{e_1^b}$$

$$(730) \qquad 205.41.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(731) \qquad 193.40.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = H_{m_1^b, d_1^b}^{e_1^b, l_1^b} S_{m_2^b}^{d_1^b}$$

$$(732) \qquad 193.40.2.0: Z_{m_{1}^{a}m_{1}^{b}m_{2}^{b}}^{e_{1}^{a}e_{1}^{b}e_{2}^{b}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{1}^{b}m_{2}^{b}}^{e_{2}^{b},l_{1}^{b}}$$

$$(733) \qquad 391.63.1.2: Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = H_{d_1^b d_2^b}^{l_1^b, l_2^b} Z_{m_1^b m_2^b}^{d_1^b d_2^b}$$

$$(734) \qquad 391.63.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$$

$$(735) \qquad 391.63.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(736) \qquad 379.62.1.2: Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = H_{m_1^b, d_1^b}^{l_1^b, l_2^b} S_{m_2^b}^{d_1^b}$$

$$(737) \qquad 379.62.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$$

$$(738) \qquad 379.62.3.0: Z_{m_a^a m_b^b m_b^b}^{e_1^a e_1^b e_2^b} + = S_{m_a^a l_b}^{e_1^a e_b^b} Z_{m_b^b m_b^b}^{e_2^b l_1^b}$$

$$(739) 474.70.1.3: Z_{m_1^b, d_1^b}^{l_1^b, l_2^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{m_1^b}^{d_2^b} \cdot 0.5$$

$$(740) 474.70.2.2: Z_{m_1^b m_2^b}^{l_1^b, l_2^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, d_1^b}^{l_1^b, l_2^b}$$

$$(741) 474.70.3.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{l_2^b}^{e_1^b} Z_{m_1^b m_2^b}^{l_1^b, l_2^b}$$

$$(742) 474.70.4.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(743) 363.60.1.2: Z_{m_1^b, d_1^b}^{e_1^b, l_1^b} + = H_{d_1^b, d_2^b}^{e_1^b, l_1^b} S_{m_1^b}^{d_2^b} \cdot 0.5$$

$$(744) \qquad 363.60.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b}^{d_1^b} Z_{m_2^b, l_1^b}^{e_1^b, l_1^b}$$

$$(745) \qquad 363.60.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(746) \qquad 448.67.1.2: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} Z_{l_2^b}^{d_2^b}$$

$$(747) \qquad 448.67.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(748) \qquad 448.67.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(749) \qquad 456.67.1.2: Z_{d_p^b}^{l_p^b} + = H_{d_p^b, d_q^a}^{l_n^b, l_q^a} S_{l_q^a}^{d_1^a}$$

$$(750) \qquad 456.67.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b m_2^b}^{e_1^b, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(751) \qquad 456.67.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(752) \qquad 244.46.1.1: Z_{m_p^b m_p^b}^{e_1^b, l_1^b} + = S_{m_p^b m_p^b}^{e_1^b, d_1^b} H_{d_1^b}^{l_1^b}$$

$$(753) \qquad 244.46.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(754) \qquad 420.65.1.2: Z_{m_{l}^{b}, d_{l}^{b}}^{l_{l}^{b}, l_{b}^{b}} + = H_{d_{l}^{b}, d_{b}^{b}}^{l_{l}^{b}, l_{b}^{b}} S_{m_{l}^{b}}^{d_{b}^{b}} \cdot -1.$$

$$(755) \qquad 420.65.2.1: Z_{m_{l}^{b}m_{2}^{b}}^{e_{1}^{b},l_{l}^{b}} + = S_{m_{l}^{b},l_{2}^{b}}^{e_{1}^{b},d_{1}^{b}} Z_{m_{2}^{b},d_{1}^{b}}^{l_{1}^{b},l_{2}^{b}}$$

$$(756) \qquad 420.65.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(757) 280.49.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_2^b}^{e_1^b, d_1^b} H_{m_2^b, d_1^b}^{l_1^b, l_2^b}$$

$$(758) \qquad 280.49.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(759) \qquad 424.65.1.2: Z^{l_1^{l_1^{l_1^{l_1^{a}}}}}_{m_1^{b},d_1^{a}} + = H^{l_1^{l_1^{b},l_1^{a}}}_{d_1^{b},d_1^{a}} S^{d_1^{b}}_{m_1^{b}}$$

$$(760) \qquad 424.65.2.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, l_1^a} Z_{m_2^b, l_1^a}^{l_1^b, l_1^a}$$

$$(761) \qquad 424.65.3.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_1^b e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(762) \qquad 284.49.1.1: Z_{m_1^b m_2^b}^{e_1^b, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^b, l_1^a} H_{m_2^b, d_1^a}^{l_1^b, l_1^a}$$

$$(763) \qquad 284.49.2.0: Z_{m_1^a m_1^b m_2^b}^{e_1^a e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(764) 72.19.1.0: Z_{m_1^q m_1^b m_2^b}^{e_1^a e_2^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} H_{m_1^b m_2^b}^{e_2^b, l_1^b}$$

$$(765) \qquad 66.18.1.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = H_{m_1^b, d_1^a}^{e_1^a e_1^b} S_{m_1^a m_2^a}^{e_2^a, d_1^a}$$

$$(766) \qquad 68.18.1.0: Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}e_{1}^{b}} + = H_{m_{1}^{a},d_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} S_{m_{2}^{a}m_{1}^{b}}^{e_{2}^{a},d_{1}^{b}}$$

$$(767) \qquad 69.18.1.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = H_{m_1^a, d_1^a}^{e_1^a e_2^a} S_{m_2^a m_1^b}^{e_1^b, d_1^a} \cdot -1.$$

$$(768) \qquad 187.39.1.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b} + = H_{m_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^a m_2^a}^{e_2^a, d_1^a} \cdot -1.$$

$$(769) \qquad 187.39.2.0: Z_{m_{1}^{a}m_{3}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}e_{1}^{b}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}, l_{1}^{b}}$$

$$(770) \qquad 359.59.1.2: Z_{m_{q},d_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = H_{d_{1}^{b},d_{1}^{a}}^{e_{1}^{a},l_{1}^{b}} S_{m_{1}^{a}}^{d_{1}^{a}}$$

$$(771) 359.59.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a, l_1^b}$$

$$(772) \qquad 359.59.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b}$$

$$(773) 401.64.1.2: Z_{m_4^a, d_3^b}^{e_1^a, l_1^b} + = S_{m_4^a, l_2^b}^{e_1^a, d_2^b} H_{d_2^b, d_2^b}^{l_1^b, l_2^b} \cdot -1.$$

$$(774) 401.64.2.1: Z_{m_1^a m_2^c m_1^b}^{e_1^a e_2^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a, l_1^b}$$

$$(775) \qquad 401.64.3.0: Z_{m_1^q m_2^q m_1^b}^{e_1^1 e_2^2 e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^q m_2^q m_1^b}^{e_1^a e_2^a, l_1^b}$$

$$(776) \qquad 405.64.1.2: Z_{m_{1}^{a}, d_{5}^{b}}^{e_{1}^{a}, l_{5}^{b}} + = S_{m_{1}^{a}, l_{1}^{a}}^{e_{1}^{a}, l_{1}^{a}} H_{d_{5}^{b}, d_{4}^{a}}^{l_{5}^{b}, l_{1}^{a}} \cdot -1.$$

$$(777) \qquad 405.64.2.1: Z_{m_a^a m_a^a m_a^b}^{e_a^a, l_b^b} + = S_{m_a^a m_b}^{e_a^a, d_b^b} Z_{m_a^a, d_b^a}^{e_a^a, l_b^b}$$

$$(778) \qquad 405.64.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b}$$

$$(779) \qquad 189.39.1.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{m_2^a, d_1^b}^{e_2^a, l_1^b} \cdot -1.$$

$$(780) \qquad 189.39.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b}$$

$$(781) \qquad 357.59.1.2: Z_{m_b^b, d_1^a}^{e_1^a, l_b^b} + = H_{d_b^b, d_1^a}^{e_1^a, l_b^b} S_{m_b^b}^{d_b^b}$$

$$(782) \qquad 357.59.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_2^a, l_1^b}$$

$$(783) \qquad 357.59.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b}$$

$$(784) \qquad 407.64.1.2: Z_{m_1^b,d_1^a}^{e_1^a,l_1^b} + = S_{m_1^b,l_1^a}^{e_1^a,d_1^b} H_{d_1^b,d_1^a}^{l_1^b,l_1^a} \cdot -1.$$

$$(785) \qquad 407.64.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_2^a, l_1^b}$$

$$(786) \qquad 407.64.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a, l_1^b}$$

$$(787) \qquad 183.39.1.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = H_{m_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^a m_2^a}^{e_1^a, d_1^a}$$

$$(788) 183.39.2.0: Z_{m_a^a m_a^a m_a^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_a^b}^{e_2^a e_1^b, l_1^a}$$

$$(789) \qquad 470.69.1.3: Z_{m^a,d^b}^{l^b_1,l^a_1} + = H_{d^b_1,d^a_1}^{l^b_1,l^a_1} S_{m^a_1}^{d^a_1} \cdot -1.$$

$$(790) 470.69.2.2: Z_{m_1^a m_2^a m_1^b}^{e_1^a, l_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{l_1^b, l_1^a}$$

$$(791) 470.69.3.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_2^a m_1^b}^{e_1^a, l_1^b, l_1^a}$$

$$(792) \qquad 470.69.4.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(793) \qquad 375.61.1.2: Z_{m_1^a m_2^a m_1^b}^{e_1, l_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1, l_1^b} H_{m_2^a, l_1^b}^{l_1^b, l_1^a}$$

$$(794) \qquad 375.61.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_2^a m_1^b}^{e_1^a, l_1^b, l_1^a}$$

$$(795) \qquad 375.61.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(796) \qquad 468.69.1.3: Z_{m_{l}^{b},d_{1}^{a}}^{l_{l}^{b},l_{1}^{a}} + = H_{d_{l}^{b},d_{1}^{a}}^{l_{l}^{b},l_{1}^{a}} S_{m_{l}^{b}}^{d_{l}^{b}} \cdot -1.$$

$$(797) 468.69.2.2: Z_{m_1^a m_2^b m_1^b}^{e_1^a, l_1^b, l_1^a} + S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(798) 468.69.3.1: Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b},l_{1}^{a}}$$

$$(799) 468.69.4.0: Z_{m_1^q m_2^q m_1^b}^{e_1^1 e_2^2 e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^2 e_1^b, l_1^a}$$

$$(800) \qquad 373.61.1.2: Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1},l_{1}^{b},l_{1}^{a}} + = S_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a},d_{1}^{a}} H_{m_{1}^{b},d_{1}^{a}}^{l_{1}^{b},l_{1}^{a}} \cdot -1.$$

$$(801) \qquad 373.61.2.1: Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b},l_{1}^{a}} +$$

$$(802) 373.61.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(803) \qquad 471.69.1.3: Z_{m_{q}^{a}, d_{1}^{a}}^{l_{1}^{a}, l_{2}^{a}} + = H_{d_{1}^{a}, d_{2}^{a}}^{l_{1}^{a}, l_{2}^{a}} S_{m_{1}^{a}}^{d_{2}^{a}} \cdot -0.5$$

$$(804) \qquad 471.69.2.2: Z_{m_1^a m_2^a m_1^b}^{e_1^b, l_1^a, l_2^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^a, d_1^a}^{l_1^a, l_2^a}$$

$$(805) \qquad 471.69.3.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_1^b, l_1^a, l_2^a}$$

$$(806) 471.69.4.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(807) \qquad 376.61.1.2: Z_{m_1^a m_2^a m_1^b}^{e^b, l_1^a, l_2^a} + = S_{m_1^a m_1^b}^{e^b, l_1^a} H_{m_2^a, l_1^a}^{l_1^a, l_2^a} \cdot 0.5$$

$$(808) \qquad 376.61.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_1^b, l_1^a, l_2^a}$$

$$(809) 376.61.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(810) \qquad 360.59.1.2: Z_{m_{1}^{a},d_{1}^{a}}^{e_{1}^{a},l_{1}^{a}} + = H_{d_{1}^{a},d_{2}^{a}}^{e_{1}^{a},l_{1}^{a}} S_{m_{1}^{a}}^{d_{2}^{a}} \cdot -1.$$

$$(811) \qquad 360.59.2.1: Z_{m_{1}^{a}m_{2}^{a}m_{3}^{b}}^{a_{1}^{a},l_{1}^{a}} + = S_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{b},d_{1}^{a}} Z_{m_{2}^{a},d_{1}^{a}}^{e_{1}^{a},l_{1}^{a}}$$

$$(812) 360.59.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(813) \qquad 411.64.1.2: Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{d_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(814) \qquad 411.64.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^a, d_1^a}^{e_1^a, l_1^a}$$

$$(815) \qquad 411.64.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_1^a l}$$

$$(816) 415.64.1.2: Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_2^a}^{e_1^a, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a}$$

$$(817) \qquad 415.64.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a l_1^b l_1^a} + = S_{m_1^a m_1^b}^{e_1^b l_1^a} Z_{m_2^a, d_1^a}^{e_1^a l_1^a}$$

$$(818) 415.64.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(819) \qquad 190.39.1.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, l_1^a} H_{m_2^a, l_1^a}^{e_1^a, l_1^a}$$

$$(820) \qquad 190.39.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a} \\ + Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a} + Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

(821)
$$355.59.1.2: Z_{m_1,d_2}^{e_1^b,l_1^a} + = H_{d_2^b,d_2}^{e_1^b,l_1^a} S_{m_1}^{d_1^a}$$

$$(822) 355.59.2.1: Z_{m_1^a m_2^a m_1^b}^{a_1^b, l_1^a} + = S_{m_1^a m_1^b}^{a_1^a, d_1^b} Z_{m_2^a, d_1^b}^{b_1^b, l_1^a}$$

$$(823) 355.59.3.0: Z_{m_1^a m_3^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(824) \qquad 409.64.1.2: Z_{m_{a}^{a}, d_{1}^{b}}^{e_{1}^{b}, l_{1}^{a}} + = S_{m_{1}^{a}, l_{1}^{b}}^{e_{1}^{b}, d_{1}^{a}} H_{d_{1}^{b}, d_{1}^{a}}^{l_{1}^{b}, l_{1}^{a}}$$

$$(825) 409.64.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_1^b, l_1^a}$$

$$(826) 409.64.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(827) \qquad 185.39.1.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} H_{m_2^a, d_1^b}^{e_1^b, l_1^a} \cdot -1.$$

$$(828) \qquad 185.39.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(829) \qquad 353.59.1.2: Z^{e_1^b, l_1^a}_{m_1^b, d_1^a} + = H^{e_1^b, l_1^a}_{d_1^b, d_1^a} S^{d_1^b}_{m_1^b}$$

$$(830) 353.59.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a}$$

$$(831) \qquad 353.59.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(832) \qquad 412.64.1.2: Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} H_{d_1^b, d_1^a}^{l^b, l_1^a}$$

$$(833) \qquad 412.64.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_1^b, l_1^a}$$

$$(834) \qquad 412.64.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(835) \qquad 416.64.1.2: Z_{m_1^b, d_1^a}^{e_1^b, l_1^a} + = S_{m_1^b, l_2^a}^{e_1^b, d_2^a} H_{d_1^a, d_2^a}^{l_1^a, l_2^a}$$

$$(836) 416.64.2.1: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_1^b, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, l_1^a} Z_{m_1^b, l_1^a}^{e_1^b, l_1^a}$$

$$(837) 416.64.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_1^b}^{e_2^a e_1^b, l_1^a}$$

$$(838) \qquad 178.38.1.1: Z_{m_1^a, d_1^a}^{e_1^a e_2^a} + = H_{d_1^a, d_2^a}^{e_1^a e_2^a} S_{m_1^a}^{d_2^a} \cdot -1.$$

$$(839) \qquad 178.38.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^a, d_1^a}^{e_1^a e_2^a}$$

$$(840) \qquad 271.48.1.1: Z_{m_1^a, d_1^a}^{e_1^a e_2^a} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^a, l_1^b}^{e_2^a, d_1^b}$$

$$(841) 271.48.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^a, d_1^a}^{e_1^a e_2^a}$$

$$(842) 275.48.1.1: Z_{m_1^a, d_1^a}^{e_1^a e_2^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{m_1^a, l_1^a}^{e_2^a, d_2^a} \cdot -1.$$

$$(843) 275.48.2.0: Z_{m_1^a m_2^a m_1^b}^{e^a e^a_2 e^b_1} + = S_{m_1^a m_1^b}^{e^b, d^a_1} Z_{m_2^a, d^a_1}^{e^a_1 e^a_2}$$

$$(844) \qquad 444.66.1.2: Z_{m_{a}^{1},d_{a}^{2}}^{l_{a}^{1}l_{a}^{2}} + = H_{d_{a}^{1},d_{a}^{2}}^{l_{a}^{1}l_{a}^{2}} S_{m_{a}^{2}}^{d_{a}^{2}} \cdot -1.$$

$$(845) \qquad 444.66.2.1: Z_{m_1, d_1}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} Z_{m_1, d_1}^{l_1^a l_2^a} +$$

$$(846) 444.66.3.0: Z_{m_1^a m_2^a m_3^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^a, d_1^a}^{e_1^a e_2^a}$$

$$(847) 304.50.1.1: Z_{m_1, d_1^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} H_{m_1, d_1^a}^{l_1^a l_2^a}$$

$$(848) \qquad 304.50.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{m_2^a, d_1^a}^{e_1^a e_2^a}$$

$$(849) \qquad 177.38.1.1: Z_{m^a,d^b}^{e^a_1e^b_1} + = H_{d^b_1,d^a_1}^{e^a_1e^b_1} S_{m^a_1}^{d^a_1} \cdot -1.$$

$$(850) \qquad 177.38.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a e_1^b}$$

$$(851) 261.48.1.1: Z_{m_{a}, d_{b}}^{e_{1}^{a}e_{b}^{b}} + = H_{d_{b}, d_{b}}^{e_{1}^{b}, l_{b}^{b}} S_{m_{a}^{a}, l_{b}^{a}}^{e_{1}^{a}d_{b}^{b}}$$

$$(852) \qquad 261.48.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a e_1^b}$$

$$(853) \qquad 265.48.1.1: Z_{m_1^a, d_1^b}^{e_1^a e_1^b} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^a, l_1^a}^{e_1^a, d_1^a}$$

$$(854) \qquad 265.48.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a e_1^b}$$

$$(855) \qquad 269.48.1.1: Z_{m_1^a, d_1^b}^{e_1^a e_1^b} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^a, l_1^b}^{e_1^b, d_1^a} \cdot -1.$$

$$(856) 269.48.2.0: Z_{m_a^a m_a^a m_a^b}^{e_1^a e_2^a e_1^b} + = S_{m_a^a m_b^b}^{e_1^a, d_1^b} Z_{m_a^a, d_1^b}^{e_2^a e_1^b}$$

$$(857) \qquad 443.66.1.2: Z_{m_1^a, d_1^b}^{l_1^a l_1^b} + = H_{d_1^b, d_1^a}^{l_1^a l_1^b} S_{m_1^a}^{d_1^a} \cdot -1.$$

$$(858) \qquad 443.66.2.1: Z_{m_1^a, d_1^b}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} Z_{m_1^a, d_1^b}^{l_1^a l_1^b}$$

$$(859) \qquad 443.66.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a e_1^b}$$

$$(860) 303.50.1.1: Z_{m_1, d_1}^{e_1^a e_1^b} + = S_{l_1^a l_1^b}^{e_1^a e_1^b} H_{m_1, d_1^a}^{l_1^a l_1^b}$$

$$(861) \qquad 303.50.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{m_2^a, d_1^b}^{e_2^a e_1^b}$$

$$(862) 175.38.1.1: Z_{m_1^b, d_1^a}^{e_1^a e_1^b} + = H_{d_1^b, d_1^a}^{e_1^a e_1^b} S_{m_1^b}^{d_1^b} \cdot -1.$$

$$(863) 175.38.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_2^a e_1^b}$$

$$(864) \qquad 267.48.1.1: Z_{m_1^b, d_1^a}^{e_1^a e_1^b} + = H_{d_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^b, l_1^a}^{e_1^a, d_1^b}$$

$$(865) \qquad 267.48.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_2^a e_1^b}$$

$$(866) \qquad 272.48.1.1: Z_{m_b^b,d_a^a}^{e_1^a e_1^b} + = H_{d_b^b,d_a^a}^{e_1^a,l_b^l} S_{m_b^b,l_b^b}^{e_1^b,d_1^b} \cdot -1.$$

$$(867) \qquad 272.48.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_2^a e_1^b}$$

$$(868) \qquad 276.48.1.1: Z_{m_b^b, d_a^a}^{e_1^a e_1^b} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{m_b^b, l_1^a}^{e_1^b, d_2^a}$$

$$(869) \qquad 276.48.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a m_2}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_2^a e_1^b}$$

$$(870) \qquad 441.66.1.2: Z_{m_b^1, d_a^a}^{l_1^a l_1^b} + = H_{d_b^1, d_a^a}^{l_1^a l_1^b} S_{m_b^b}^{d_1^b} \cdot -1.$$

$$(871) \qquad 441.66.2.1: Z_{m_l^b, d_l^a}^{e_l^a e_l^b} + = S_{l_1^a l_l^b}^{e_1^a e_l^b} Z_{m_l^b, d_l^a}^{l_1^a l_l^b}$$

$$(872) 441.66.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{e_2^a e_1^b}$$

$$(873) \qquad 301.50.1.1: Z_{m_{b}^{b}, d_{a}^{a}}^{e_{a}^{a}e_{b}^{b}} + = S_{l_{a}^{a}l_{b}^{b}}^{e_{a}^{a}e_{b}^{b}} H_{m_{b}^{b}, d_{a}^{a}}^{l_{a}^{a}l_{b}^{b}} \cdot -1.$$

$$(874) 301.50.2.0: Z_{m_{a}^{a}m_{a}^{a}m_{b}^{b}}^{e_{a}^{a}e_{2}^{b}e_{1}^{b}} + = S_{m_{1}^{a}m_{a}^{a}}^{e_{1}^{a}e_{1}^{a}} Z_{m_{b}^{b},d_{1}^{a}}^{e_{2}^{a}e_{1}^{b}}$$

$$(875) \qquad 256.47.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{d_1^a d_2^a}^{e_1^a, l_1^a} S_{m_1^a m_2^a}^{d_1^a d_2^a} \cdot -1.$$

$$(876) \qquad 256.47.2.0: Z_{m_{a}^{a}m_{a}^{a}m_{b}^{b}}^{e_{a}^{a}} + = S_{m_{b}^{b},l_{a}}^{e_{a}^{a}} Z_{m_{a}^{a}m_{a}^{a}}^{e_{a}^{a},l_{a}^{1}}$$

$$(877) \qquad 210.41.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{m_1^a m_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{e_1^a} \cdot -1.$$

$$(878) \qquad 210.41.2.0: Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{b}e_{1}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{1}^{a}m_{2}^{a}}^{e_{2}^{a},l_{1}^{a}}$$

$$(879) \qquad 202.40.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{m_1^a, d_1^a}^{e_1^a, l_1^a} S_{m_2^a}^{d_1^a} \cdot -1.$$

$$(880) \qquad 202.40.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(881) \qquad 396.63.1.2: Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = H_{d_1^a d_2^a}^{l_1^a, l_2^a} S_{m_1^a m_2^a}^{d_1^a d_2^a} \cdot -1.$$

$$(882) 396.63.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a}$$

$$(883) \qquad 396.63.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(884) 388.62.1.2: Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = H_{m_1^a, l_1^a}^{l_1^a, l_2^a} S_{m_2^a}^{d_1^a} \cdot -1.$$

$$(885) \qquad 388.62.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a}$$

$$(886) \qquad 388.62.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(887) \qquad 479.70.1.3: Z_{n_1, d_1}^{l_1^a, l_2^a} + = H_{l_1, l_2}^{l_1^a, l_2^a} S_{m_1}^{d_2^a} \cdot -0.5$$

$$(888) \qquad 479.70.2.2: Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_1^a}^{l_1^a, l_2^a}$$

$$(889) 479.70.3.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a}$$

$$(890) 479.70.4.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(891) \qquad 368.60.1.2: Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{m_1^a}^{d_2^a} \cdot -0.5$$

$$(892) \qquad 368.60.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_1^a}^{e_1^a, l_1^a}$$

$$(893) \qquad 368.60.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(894) \qquad 451.67.1.2: Z_{d_{1}^{a}}^{l_{1}^{a}} + = H_{d_{1}^{b}, d_{1}^{a}}^{l_{1}^{b}, l_{1}^{a}} S_{l_{1}^{b}}^{d_{1}^{b}} \cdot -1.$$

$$(895) 451.67.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(896) \qquad 451.67.3.0: Z_{m_1^a m_3^c m_4^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(897) \qquad 459.67.1.2: Z_{d^a}^{l^a_1} + = H_{d^a_a, d^a_a}^{l^a_1, l^a_2} S_{l^a_a}^{d^a_2} \cdot -1.$$

$$(898) 459.67.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(899) \qquad 459.67.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(900) \qquad 247.46.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} H_{d_1^a}^{l_1^a} \cdot -1.$$

$$(901) \qquad 247.46.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(902) \qquad 431.65.1.2: Z_{m^a,d^b}^{l^b_1,l^a_1} + = H_{d^b_2,d^a}^{l^b_1,l^a_1} S_{m^a_1}^{d^a_1} \cdot -1.$$

$$(903) \qquad 431.65.2.1: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a},l_{1}^{a}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{a},d_{1}^{b}} Z_{m_{2}^{a},d_{1}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(904) \qquad 431.65.3.0: Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}e_{1}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{1}^{a}m_{2}^{a}}^{e_{2}^{a},l_{1}^{a}}$$

$$(905) \qquad 291.49.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{m_2^a, d_1^b}^{l_1^b, l_1^a}$$

$$(906) \qquad 291.49.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(907) \qquad 435.65.1.2: Z_{m_1^a,d_1^a}^{l_1^a,l_2^a} + = H_{d_1^a,d_2^a}^{l_1^a,l_2^a} S_{m_1^a}^{d_2^a}$$

$$(908) \qquad 435.65.2.1: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a},l_{1}^{a}} + = S_{m_{1}^{a},l_{2}^{a}}^{e_{1}^{a},d_{1}^{a}} Z_{m_{2}^{a},d_{1}^{a}}^{l_{1}^{a},l_{2}^{a}} \label{eq:mass_eq}$$

$$(909) 435.65.3.0: Z_{m_1^a m_3^c m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(910) \qquad 295.49.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_2}^{e_1^a, l_1^a} H_{m_2^a, l_3}^{l_1^a, l_2^a} \cdot -1.$$

$$(911) \qquad 295.49.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^b, l_1^a}^{e_1^a e_1^b} Z_{m_1^a m_2^a}^{e_2^a, l_1^a}$$

$$(912) \qquad 77.19.1.0: Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{b}} + = S_{m_{1}^{b},l_{1}^{a}}^{e_{1}^{a}e_{1}^{b}} H_{m_{1}^{a}m_{2}^{a}}^{e_{2},l_{1}^{a}} \cdot -1.$$

$$(913) \qquad 255.47.1.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = H_{d_{1}^{a}d_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} S_{m_{1}^{a}m_{1}^{b}}^{d_{1}^{a}d_{1}^{b}} \cdot -1.$$

$$(914) \qquad 255.47.2.0: Z_{m_{1}^{a}m_{3}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}e_{1}^{b}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{2}^{a}m_{1}^{b}}^{e_{2}^{a},l_{1}^{b}}$$

$$(915) 209.41.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = H_{m_1^a m_1^b}^{l_1^b, l_1^a} S_{l_1^a}^{e_1^a} \cdot -1.$$

$$(916) \qquad 209.41.2.0: Z_{m_{a}^{a}m_{a}^{\alpha}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}e_{1}^{b}} + = S_{m_{a}^{a},l_{b}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{a}^{a}m_{1}^{b}}^{e_{2}^{a},l_{1}^{b}}$$

$$(917) \qquad 199.40.1.1: Z_{m_a^a m_b^b}^{e_1^a, l_1^b} + = H_{m_b^b, d_a}^{e_1^a, l_1^b} S_{m_1^a}^{d_1^a}$$

$$(918) \qquad 199.40.2.0: Z_{m_1^a m_3^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(919) 201.40.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = H_{m_1^a, d_1^b}^{e_1^a, l_1^b} S_{m_1^b}^{d_1^b} \cdot -1.$$

$$(920) \qquad 201.40.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(921) \qquad 385.62.1.2: Z^{l_1^b, l_1^a}_{m_1^a m_1^b} + = H^{l_1^b, l_1^a}_{m_1^b, d_1^a} S^{d_1^a}_{m_1^a}$$

$$(922) 385.62.2.1: Z_{m_1^a m_2^b}^{e_1^a, l_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^b}^{l_1^b, l_1^a}$$

$$(923) \qquad 385.62.3.0: Z_{m_{1}^{a}m_{3}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}e_{1}^{b}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{3}^{a}m_{1}^{b}}^{e_{2}^{a},l_{1}^{b}}$$

$$(924) \qquad 387.62.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1.$$

$$(925) \qquad 387.62.2.1: Z_{m_{1}^{a}m_{b}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{l_{1}^{a}}^{e_{1}^{a}} Z_{m_{1}^{a}m_{b}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(926) \qquad 387.62.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(927) \qquad 478.70.1.3: Z_{m_b^l, d_1^a}^{l_1^l, l_1^a} + = H_{d_b^l, d_1^a}^{l_1^l, l_1^a} S_{m_b^l}^{d_1^b}$$

$$(928) \qquad 478.70.2.2: Z_{m_1^q m_2^b}^{l_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^b, d_2^a}^{l_1^b, l_1^a}$$

$$(929) \qquad 478.70.3.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{l_{1}^{a}}^{e_{1}^{a}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(930) \qquad 478.70.4.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(931) \qquad 395.63.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = S_{m_1^a m_1^b}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a} \cdot -1.$$

$$(932) \qquad 395.63.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_1^b}^{l_1^b, l_1^a}$$

$$(933) 395.63.3.0: Z_{m_1^a m_3^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(934) \qquad 367.60.1.2: Z_{m_b^b, d_1^a}^{e_1^a, l_b^1} + = H_{d_b^b, d_1^a}^{e_1^a, l_b^b} S_{m_b^1}^{d_b^1}$$

$$(935) 367.60.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, d_1^a}^{e_1^a, l_1^b}$$

$$(936) 367.60.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b} Z_{m_3^a m_1^b}^{e_2^a, l_1^b}$$

$$(937) \qquad 449.67.1.2: Z_{d_1^b}^{l_1^b} + = H_{d_1^b, d_2^b}^{l_1^b, l_2^b} S_{l_2^b}^{d_2^b} \cdot -1.$$

$$(938) \qquad 449.67.2.1: Z_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{m_{1}^{a}m_{2}^{b}}^{e_{1}^{a},d_{1}^{b}} Z_{d_{0}^{b}}^{l_{1}^{b}}$$

$$(939) \qquad 449.67.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(940) \qquad 457.67.1.2: Z_{d^b_1}^{l^b_1} + = H_{d^b_1, d^a_1}^{l^b_1, l^a_1} S_{l^a_1}^{d^a_1} \cdot -1.$$

$$(941) \qquad 457.67.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a m_1^b}^{e_1^a, d_1^b} Z_{d_1^b}^{l_1^b}$$

$$(942) \qquad 457.67.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(943) \qquad 245.46.1.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},l_{1}^{b}} + = S_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{a},d_{1}^{b}} H_{d_{1}^{b}}^{l_{1}^{b}} \cdot -1.$$

$$(944) \qquad 245.46.2.0: Z_{m_{q}^{a}m_{3}^{a}m_{4}^{b}}^{e_{1}^{a}e_{2}^{a}e_{1}^{b}} + = S_{m_{q}^{a},l_{p}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{3}^{a}m_{4}^{b}}^{e_{2}^{a},l_{1}^{b}}$$

$$(945) \qquad 427.65.1.2: Z^{l_1^b, l_1^a}_{m^a, d^b} + = H^{l_1^b, l_1^a}_{d^b, d^a} S^{d_1^a}_{m^a_1} \cdot -1.$$

$$(946) \qquad 427.65.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} Z_{m_1^a, d_1^b}^{l_1^b, l_1^a}$$

$$(947) \qquad 427.65.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(948) 287.49.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^b, l_1^a}^{e_1^a, d_1^b} H_{m_1, d_1^b}^{l_1^b, l_1^a} H_{m_1, d_1^b}^{l_1^b, l_1^a}$$

$$(949) \qquad 287.49.2.0: Z_{m_{1}^{a}m_{2}^{a}m_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{a}e_{1}^{b}} Z_{m_{2}^{a}m_{1}^{b}}^{e_{2}^{a},l_{1}^{b}}$$

$$(950) \qquad 421.65.1.2: Z_{m_h^b, d_1^b}^{l_h^b, l_2^b} + = H_{d_h^b, d_2^b}^{l_h^b, l_2^b} S_{m_h^b}^{d_2^b}$$

$$(951) 421.65.2.1: Z_{m_q^a m_b^b}^{e_1^a, l_1^b} + = S_{m_q^a, l_b^b}^{e_1^a, d_1^b} Z_{m_b^b, d_b^a}^{l_1^b, l_2^b}$$

$$(952) \qquad 421.65.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(953) \qquad 281.49.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_2^b}^{e_1^a, d_1^b} H_{m_1^b, d_1^b}^{l_1^b, l_2^b} \cdot -1.$$

$$(954) \qquad 281.49.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(955) \qquad 425.65.1.2: Z_{m_b^l,d_1^a}^{l_b^l,l_1^a} + = H_{d_b^l,d_1^a}^{l_b^l,l_1^a} S_{m_b^l}^{d_b^l} \cdot -1.$$

$$(956) \qquad 425.65.2.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, d_1^a} Z_{m_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(957) 425.65.3.0: Z_{m_1^a m_3^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(958) \qquad 285.49.1.1: Z_{m_1^a m_1^b}^{e_1^a, l_1^b} + = S_{m_1^a, l_1^a}^{e_1^a, l_1^a} H_{m_1^b, l_1^a}^{l_1^b, l_1^a} \cdot -1.$$

$$(959) 285.49.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} Z_{m_2^a m_1^b}^{e_2^a, l_1^b}$$

$$(960) \qquad 76.19.1.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^b e_1^b} + = S_{m_1^a, l_1^b}^{e_1^a e_1^b} H_{m_2^a m_1^b}^{e_2, l_1^b} \cdot -1.$$

$$(961) \qquad 253.47.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{d_1^a d_1^b}^{e_1^b, l_1^a} S_{m_1^a m_1^b}^{d_1^a d_1^b}$$

$$(962) \qquad 253.47.2.0: Z_{m_{1}^{a}m_{3}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}e_{3}^{b}} + = S_{m_{1}^{a},l_{1}^{a}}^{e_{1}^{a}e_{2}^{a}} Z_{m_{2}^{a}m_{1}^{b}}^{e_{1},l_{1}^{a}}$$

$$(963) \qquad 207.41.1.1: Z_{m_1^a m_l^b}^{e_l^b, l_1^a} + = H_{m_1^a m_l^b}^{l_1^b, l_1^a} S_{l_l^b}^{e_l^b} \cdot -1.$$

$$(964) 207.41.2.0: Z_{m_a^a m_a^a m_b^b}^{e_1^a e_2^a e_1^b} + = S_{m_a^a, l_1^a}^{e_1^a e_2^a} Z_{m_a^a m_b^b}^{e_1^b, l_1^a}$$

$$(965) \qquad 195.40.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = H_{m_1^b, d_1^a}^{e_1^b, l_1^a} S_{m_1^a}^{d_1^a} \cdot -1.$$

$$(966) 195.40.2.0: Z_{m_a^a m_a^a m_b^b}^{e_1^a e_2^a e_1^b} + = S_{m_a^a, l_a}^{e_1^a e_2^a} Z_{m_a^a m_b^b}^{e_1^b, l_1^a}$$

$$(967) 197.40.1.1: Z_{m^a m^b}^{e^b_1, l^a_1} + = H_{m^a d^b}^{e^b_1, l^a_1} Z_{m^b}^{d^b_1}$$

$$(968) \qquad 197.40.2.0: Z_{m_1^a m_3^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_3^a m_1^b}^{e_1^b, l_1^a}$$

$$(969) 381.62.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = H_{m_1^b, d_1^a}^{l_1^b, l_1^a} S_{m_1^a}^{d_1^a}$$

$$(970) \qquad 381.62.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(971) \qquad 381.62.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(972) \qquad 383.62.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = H_{m_1^a, d_1^b}^{l_1^b, l_1^a} S_{m_1^b}^{d_1^b} \cdot -1.$$

$$(973) \qquad 383.62.2.1: Z_{m_{1}^{a}m_{1}^{b}}^{e_{1}^{b},l_{1}^{a}} + = S_{l_{1}^{b}}^{e_{1}^{b}} Z_{m_{1}^{a}m_{1}^{b}}^{l_{1}^{b},l_{1}^{a}}$$

$$(974) \qquad 383.62.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(975) \qquad 476.70.1.3: Z_{m_b^i, d_1^a}^{l_1^i, l_1^a} + = H_{d_b^i, d_1^a}^{l_1^i, l_1^a} S_{m_b^i}^{d_1^b}$$

$$(976) \qquad 476.70.2.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, l_1^a}^{l_1^b, l_1^a}$$

$$(977) \qquad 476.70.3.1: Z_{m_{a_{m_{b}}^{a}}}^{e_{b}^{l}, l_{1}^{a}} + = S_{l_{b}^{l}}^{e_{b}^{l}} Z_{m_{a_{m_{b}}^{a}}}^{l_{b}^{l}, l_{1}^{a}}$$

$$(978) \qquad 476.70.4.0: Z_{m_{1}^{a}m_{3}^{a}m_{1}^{b}}^{e_{1}^{a}e_{2}^{a}e_{1}^{b}} + = S_{m_{1}^{a},l_{1}^{a}}^{e_{1}^{a}e_{2}^{a}} Z_{m_{2}^{a}m_{1}^{b}}^{e_{1},l_{1}^{a}}$$

$$(979) \qquad 393.63.1.2: Z_{m_1^a m_1^b}^{l_1^b, l_1^a} + = S_{m_1^a m_1^b}^{d_1^a d_1^b} H_{d_1^a d_1^b}^{l_1^b, l_1^a} \cdot -1.$$

$$(980) \qquad 393.63.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{l_1^b}^{e_1^b} Z_{m_1^a m_1^b}^{l_1^b, l_1^a}$$

$$(981) \qquad 393.63.3.0: Z_{m_1^a m_2^a m_3^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^b}^{e_1^b, l_1^a}$$

$$(982) \qquad 365.60.1.2: Z_{m_b^b,d_a^a}^{e_b^b,l_a^a} + = H_{d_b^b,d_a^a}^{e_b^b,l_a^a} S_{m_b^b}^{d_b^b} \cdot -1.$$

$$(983) \qquad 365.60.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_1^b, l_1^a}^{e_1^b, l_1^a}$$

$$(984) \qquad 365.60.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(985) \qquad 452.67.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$$

$$(986) \qquad 452.67.2.1: Z_{m_a^a m_b^b}^{e_b^1, l_1^a} + = S_{m_a^a m_b^b}^{e_b^1, d_1^a} Z_{d_a^a}^{l_1^a}$$

$$(987) \qquad 452.67.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(988) 460.67.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} Z_{l_2^a}^{d_2^a}$$

$$(989) \qquad 460.67.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(990) \qquad 460.67.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(991) \qquad 248.46.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a m_1^b}^{e_1^b, d_1^a} H_{d_1^a}^{l_1^a}$$

$$(992) \qquad 248.46.2.0: Z_{m_1^a m_3^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(993) \qquad 432.65.1.2: Z^{l_{1}^{b},l_{1}^{a}}_{m_{1}^{a},d_{1}^{b}} + = H^{l_{1}^{b},l_{1}^{a}}_{d_{2}^{b},d_{3}^{a}} S^{d_{1}^{a}}_{m_{1}^{a}} \cdot -1.$$

$$(994) \qquad 432.65.2.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, d_1^b} Z_{m_1^a, d_1^b}^{l_b^b, l_1^a}$$

$$(995) 432.65.3.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(996) \qquad 292.49.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^b, l_1^b}^{e_1^b, l_1^b} H_{m_1^a, d_1^b}^{l_1^b, l_1^a}$$

$$(997) \qquad 292.49.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(998) \qquad 436.65.1.2: Z_{m_1^a, d_1^a}^{l_1^a, l_2^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} S_{m_1^a}^{d_2^a}$$

$$(999) 436.65.2.1: Z_{m_a^a m_b^b}^{e_b^b, l_a^1} + = S_{m_b^b, l_a^2}^{e_b^b, d_a^1} Z_{m_a^a, d_a^a}^{l_a^1, l_a^2}$$

$$(1000) \quad \ \, 436.65.3.0: Z_{m_{q}^{a}m_{3}^{a}m_{b}^{b}}^{e_{1}^{a}e_{2}^{a}e_{3}^{b}} + = S_{m_{q}^{a},l_{1}^{a}}^{e_{1}^{a}e_{2}^{a}} Z_{m_{3}^{a}m_{b}^{b}}^{e_{1},l_{1}^{a}}$$

$$(1001) \quad \ 296.49.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{n_1^b, l_2}^{e_1^b, d_1^a} H_{m_1^a, d_1^a}^{l_1^a, l_2^a} \cdot -1.$$

$$(1002) \quad \ 296.49.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(1003) \quad \ 429.65.1.2: Z_{m_b^l,d_1^a}^{l_b^l,l_1^a} + = H_{d_b^l,d_1^a}^{l_b^l,l_1^a} S_{m_b^l}^{d_b^l} \cdot -1.$$

$$(1004) \quad 429.65.2.1: Z_{m_a^a m_b^b}^{e_b^l, l_1^a} + = S_{m_a^a, l_b^b}^{e_b^l, d_1^a} Z_{m_b^l, d_1^a}^{l_b^b, l_1^a}$$

$$(1005) \quad 429.65.3.0: Z_{m_a^a m_a^a m_a^b}^{e_a^a e_2^a e_1^b} + = S_{m_a^a, l_1^a}^{e_a^a e_2^a} Z_{m_a^a m_a^b}^{e_1^b, l_1^a}$$

$$(1006) \quad \ 289.49.1.1: Z_{m_1^a m_1^b}^{e_1^b, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^b, d_1^a} H_{m_1^b, d_1^a}^{l_1^b, l_1^a} \cdot -1.$$

$$(1007) \qquad 289.49.2.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(1008) \quad 74.19.1.0: Z_{m_1^a m_2^a m_1^b}^{e_1^a e_2^a e_1^b} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} H_{m_2^a m_1^b}^{e_1^b, l_1^a}$$

$$(1009) \quad \ 70.18.1.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = H_{m_1^a, d_1^a}^{e_1^a e_2^a} S_{m_2^a m_3^a}^{e_3^a, d_1^a} \cdot -1.$$

$$(1010) \quad 191.39.1.1: Z_{m_1^a m_2^a m_2^a}^{e_1^a e_2^a, l_1^a} + = H_{m_1^a, d_1^a}^{e_1^a, l_1^a} S_{m_1^a m_2^a}^{e_2^a, d_1^a} \cdot -1.$$

$$(1011) \quad \ 191.39.2.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_3^a}^{e_2^a e_3^a, l_1^a}$$

$$(1012) \hspace{0.5cm} 472.69.1.3: Z_{m_1^a,d_1^a}^{l_1^a,l_2^a} + = H_{d_1^a,d_2^a}^{l_1^a,l_2^a} S_{m_1^a}^{d_2^a} \cdot 0.5$$

$$(1013) 472.69.2.2: Z_{m_a^a m_a^a m_a^a}^{e_1, l_1^a, l_2^a} + = S_{m_a^a m_a^a}^{e_1, d_1^a} Z_{m_a^a, d_a^a}^{l_1^a, l_2^a}$$

$$(1014) \quad 472.69.3.1: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a m_3^a}^{e_2^a, l_1^a, l_2^a}$$

$$(1015) \quad 472.69.4.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_3^a}^{e_2^a e_3^a, l_1^a}$$

$$(1016) \quad 377.61.1.2: Z_{m_1^a m_2^a m_3^a}^{e_1^a, l_1^a, l_2^a} + = S_{m_1^a m_2}^{e_1^a, d_1^a} H_{m_2^a, d_1^a}^{l_1^a, l_2^a} \cdot -0.5$$

$$(1017) \quad 377.61.2.1: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a m_3^a}^{e_2^a, l_1^a, l_2^a}$$

$$(1018) \quad \ \, 377.61.3.0: Z_{m_{1}^{a}m_{2}^{a}m_{3}^{a}}^{e_{1}^{a}e_{2}^{a}e_{3}^{a}} + = S_{l_{1}^{a}}^{e_{1}^{a}}Z_{m_{1}^{a}m_{2}^{a}m_{3}^{a}}^{e_{2}^{a}e_{3}^{a},l_{1}^{a}}$$

$$(1019) \quad 361.59.1.2: Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = H_{d_1^a, d_2^a}^{e_1^a, l_1^a} S_{m_1^a}^{d_2^a} \cdot -1.$$

$$(1020) \hspace{0.5cm} 361.59.2.1: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_3^a, d_1^a}^{e_2^a, l_1^a}$$

$$(1021) \quad \ 361.59.3.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_3^a}^{e_2^a e_3^a, l_1^a}$$

$$(1022) 413.64.1.2: Z_{m_1^a, d_1^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, d_1^b} H_{d_1^b, d_1^a}^{l_1^b, l_1^a}$$

$$(1023) \quad \ \, 413.64.2.1: Z_{m_{1}^{a}m_{2}^{a}m_{3}^{a}}^{a^{a}_{2},l_{1}^{a}} + = S_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a},l_{1}^{a}} Z_{m_{2}^{a},d_{2}^{a}}^{e_{2}^{a},l_{1}^{a}}$$

$$(1024) \quad 413.64.3.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{l_1^a}^{e_1^a} Z_{m_1^a m_2^a m_3^a}^{e_2^a e_3^a, l_1^a}$$

$$(1025) 417.64.1.2: Z_{m_{*},d_{*}}^{e_{1}^{a},l_{1}^{a}} + = S_{m_{*},l_{*}}^{e_{1}^{a},d_{2}^{a}} H_{d_{*},d_{a}}^{l_{1}^{a},l_{2}^{a}}$$

$$(1026) \hspace{0.5cm} 417.64.2.1: Z_{m_1^a m_2^a m_3^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, l_1^a} Z_{m_3^a, l_1^a}^{e_2^a, l_1^a}$$

$$(1027) 417.64.3.0: Z_{m_1^q m_2^q m_2^a}^{e_1^a e_2^a e_3^a} + = S_{l_1^q}^{e_1^a} Z_{m_1^q m_2^a m_2^a}^{e_2^a e_3^a, l_1^a}$$

$$(1028) \quad 179.38.1.1: Z_{m_1^a,d_1^a}^{e_1^a e_2^a} + = H_{d_1^a,d_2^a}^{e_1^a e_2^a} S_{m_1^a}^{d_2^a}$$

$$(1029) \quad \ 179.38.2.0: Z_{m_1^a m_2^c m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_3^a, d_1^a}^{e_2^a e_3^a}$$

$$(1030) 273.48.1.1: Z_{m_1^a, d_1^a}^{e_1^a e_2^a} + = H_{d_1^b, d_1^a}^{e_1^a, l_1^b} S_{m_1^a, l_1^b}^{e_2^a, d_1^b} \cdot -1.$$

$$(1031) 273.48.2.0: Z_{m_1^a m_2^a m_2^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_2^a, d_1^a}^{e_2^a e_3^a}$$

$$(1032) \quad \ 277.48.1.1: Z_{m_1^a,d_1^a}^{e_1^a e_2^a} + = H_{d_1^a,d_2^a}^{e_1^a,l_1^a} S_{m_1^a,l_1^a}^{e_2^a,d_2^a}$$

$$(1033) \hspace{0.5cm} 277.48.2.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + \\ = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_3^a, d_1^a}^{e_2^a e_3^a}$$

$$(1034) \quad \ \, 445.66.1.2: Z_{m_{1}^{a}, d_{1}^{a}}^{l_{1}^{1} l_{2}^{a}} + = H_{d_{1}^{a}, d_{2}^{a}}^{l_{1}^{a} l_{2}^{a}} S_{m_{1}^{a}}^{d_{2}^{a}}$$

$$(1035) \quad \ \, 445.66.2.1: Z_{m_1, d_1^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} Z_{m_1, d_1^a}^{l_1^a l_2^a}$$

$$(1036) \quad \ \, 445.66.3.0: Z_{m_{1}^{a}m_{2}^{a}m_{3}^{a}}^{e_{1}^{a}e_{3}^{a}} + = S_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a},d_{1}^{a}} Z_{m_{3}^{a},d_{1}^{a}}^{e_{2}^{a}e_{3}^{a}}$$

$$(1037) \quad \ 305.50.1.1: Z_{m_1^a, d_1^a}^{e_1^a e_2^a} + = S_{l_1^a l_2^a}^{e_1^a e_2^a} H_{m_1^a, d_1^a}^{l_1^a l_2^a} \cdot -1.$$

$$(1038) \quad \ 305.50.2.0: Z_{m_1^a m_2^a m_2^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{m_2^a, d_1^a}^{e_2^a e_3^a}$$

$$(1039) \quad \ 257.47.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{d_1^a d_2^a}^{e_1^a, l_1^a} S_{m_1^a m_2^a}^{d_1^a d_2^a}$$

$$(1040) \quad 257.47.2.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3^a, l_1^a}$$

$$(1041) \quad \ 211.41.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{m_1^a m_2^a}^{l_1^a, l_2^a} S_{l_2^a}^{e_1^a}$$

$$(1042) \quad \ 211.41.2.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3, l_1^a}$$

$$(1043) \quad \ 203.40.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = H_{m_1, d_1}^{e_1^a, l_1^a} S_{m_2^a}^{d_1^a}$$

$$(1044) \quad \ 203.40.2.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3, l_1^a}$$

$$(1045) \quad \ \, 397.63.1.2: Z^{l_1^a, l_2^a}_{m_1^a m_2^a} + = H^{l_1^a, l_2^a}_{d_1^a d_2^a} S^{d_1^a d_2^a}_{m_1^a m_2^a}$$

$$(1046) \quad \ \, 397.63.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a} \label{eq:continuous}$$

$$(1047) \quad 397.63.3.0: Z_{m_{\alpha}^{a}m_{\beta}^{a}m_{\alpha}^{a}}^{e_{1}^{a}e_{2}^{a}e_{3}^{a}} + = S_{m_{\alpha}^{a}.l_{\alpha}}^{e_{1}^{a}e_{2}^{a}} Z_{m_{\beta}^{a}m_{\alpha}^{a}}^{e_{3},l_{1}^{a}}$$

$$(1048) \quad 389.62.1.2: Z_{m_1^a m_2^a}^{l_1^a, l_2^a} + = H_{m_1^a, d_2}^{l_1^a, l_2^a} S_{m_2^a}^{d_1^a}$$

$$(1049) \quad 389.62.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a}$$

$$(1050) \quad 389.62.3.0: Z_{m_1^\alpha m_2^\alpha m_2^\alpha}^{e_1^a e_2^a e_3^a} + = S_{m_1^\alpha, l_1^a}^{e_1^a e_2^a} Z_{m_2^\alpha m_2^\alpha}^{e_3^a, l_1^a}$$

$$(1051) \quad 480.70.1.3: Z_{m_a^a, d_a^a}^{l_1^a, l_2^a} + = H_{d_a^a, d_a^a}^{l_1^a, l_2^a} S_{m_a^a}^{d_2^a} \cdot 0.5$$

$$(1052) \quad \ \, 480.70.2.2: Z^{l_1^1, l_2^a}_{m_1^a m_2^a} + = S^{d_1^a}_{m_1^a} Z^{l_1^a, l_2^a}_{m_2^a, d_1^a}$$

$$(1053) \quad \ \, 480.70.3.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{l_2^a}^{e_1^a} Z_{m_1^a m_2^a}^{l_1^a, l_2^a}$$

$$(1054) \quad \ \, 480.70.4.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3^a, l_1^a}$$

$$(1055) \quad \ 369.60.1.2: Z^{e_1^a, l_1^a}_{m_1^a, d_1^a} + = H^{e_1^a, l_1^a}_{d_1^a, d_2^a} S^{d_2^a}_{m_1^a} \cdot 0.5$$

$$(1056) \quad \ 369.60.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a}^{d_1^a} Z_{m_2^a, d_1^a}^{e_1^a, l_1^a}$$

$$(1057) \quad \ 369.60.3.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3, l_1^a}$$

$$(1058) \quad \ 453.67.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^b, d_1^a}^{l_1^b, l_1^a} S_{l_1^b}^{d_1^b}$$

$$(1059) \quad \ 453.67.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} Z_{d_1^a}^{l_1^a}$$

$$(1060) \quad \ \, 453.67.3.0: Z_{m_{1}^{a}m_{2}^{a}m_{3}^{a}}^{e_{1}^{a}e_{3}^{a}} + = S_{m_{1}^{a},l_{1}^{a}}^{e_{1}^{a}}Z_{m_{2}^{a}m_{3}^{a}}^{e_{3}^{a},l_{1}^{a}}$$

$$(1061) \quad 461.67.1.2: Z_{d_1^a}^{l_1^a} + = H_{d_1^a, d_2^a}^{l_1^a, l_2^a} Z_{l_2^a}^{d_2^a}$$

$$(1062) \quad 461.67.2.1: Z_{m_1^q m_2^3}^{e_1^a, l_1^a} + = S_{m_1^q m_2^a}^{e_1^a, d_1^a} Z_{d^a}^{l_1^a}$$

$$(1063) \quad \ \, 461.67.3.0: Z_{m_{1}^{a}m_{2}^{a}m_{3}^{a}}^{e_{1}^{a}e_{3}^{a}} + = S_{m_{1}^{a},l_{1}^{a}}^{e_{1}^{a}e_{2}^{a}} Z_{m_{2}^{a}m_{3}^{a}}^{e_{3},l_{1}^{a}}$$

$$(1064) \qquad 249.46.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a m_2^a}^{e_1^a, d_1^a} H_{d_1^a}^{l_1^a}$$

$$(1065) \qquad 249.46.2.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3, l_1^a}$$

$$(1066) \hspace{0.5cm} 433.65.1.2: Z_{m_{1}^{a}, d_{1}^{b}}^{l_{1}^{b}, l_{1}^{a}} + = H_{d_{1}^{b}, d_{1}^{a}}^{l_{1}^{b}, l_{1}^{a}} S_{m_{1}^{a}}^{d_{1}^{a}}$$

$$(1067) \hspace{0.5cm} 433.65.2.1: Z_{m_{1}^{a}m_{2}^{a}}^{e_{1}^{a},l_{1}^{a}} + = S_{m_{1}^{a},l_{1}^{b}}^{e_{1}^{a},d_{1}^{b}} Z_{m_{2}^{a},d_{1}^{b}}^{l_{2},l_{1}^{a}}$$

$$(1068) \quad \ \, 433.65.3.0: Z_{m_{1}^{a}m_{2}^{a}m_{3}^{a}}^{e_{1}^{a}e_{2}^{a}e_{3}^{a}} + = S_{m_{1}^{a},l_{1}^{a}}^{e_{1}^{a}e_{2}^{a}} Z_{m_{2}^{a}m_{3}^{a}}^{e_{3},l_{1}^{a}}$$

$$(1069) \quad \ 293.49.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_1^b}^{e_1^a, l_1^b} H_{m_2^a, l_1^b}^{l_1^b, l_1^a} \cdot -1.$$

$$(1070) \quad \ 293.49.2.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3, l_1^a}$$

$$(1071) \quad \ \, 437.65.1.2: Z^{l_{1}^{a},l_{2}^{a}}_{m_{1}^{a},d_{1}^{a}} + = H^{l_{1}^{a},l_{2}^{a}}_{d_{1}^{a},d_{2}^{a}} S^{d_{2}^{a}}_{m_{1}^{a}} \cdot -1.$$

$$(1072) \quad 437.65.2.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_2^a}^{e_1^a, d_1^a} Z_{m_2, d_1^a}^{l_1^a, l_2^a}$$

$$(1073) \quad \ \, 437.65.3.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3, l_1^a}$$

$$(1074) \quad \ 297.49.1.1: Z_{m_1^a m_2^a}^{e_1^a, l_1^a} + = S_{m_1^a, l_2^a}^{e_1^a, d_1^a} H_{m_2^a, d_1^a}^{l_1^a, l_2^a}$$

$$(1075) \quad 297.49.2.0: Z_{m_1^a m_2^b m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} Z_{m_2^a m_3^a}^{e_3, l_1^a}$$

$$(1076) \quad 78.19.1.0: Z_{m_1^a m_2^a m_3^a}^{e_1^a e_2^a e_3^a} + = S_{m_1^a, l_1^a}^{e_1^a e_2^a} H_{m_2^a m_3^a}^{e_3^a, l_1^a}$$