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$$A = \sum_{e \neq g} \sum_v \left\{ \frac{(g^0 | \mu_\rho | e^0)(e^0 | \mu_\sigma | g^0)}{E_{ev} - E_{gi} - E_0} + \frac{(g^0 | \mu_\sigma | e^0)(e^0 | \mu_\rho | g^0)}{E_{ev} - E_{gf} + E_0} \right\} \times [i|v][v|f]$$

$$B = \sum_{e \neq g} \sum_v \sum_{s \neq e} \sum_a \left\{ \frac{(g^0 | \mu_\rho | e^0)(e^0 | h_a | s^0)(s^0 | \mu_\sigma | g^0)}{E_{ev} - E_{gi} - E_0} + \frac{(g^0 | \mu_\sigma | e^0)(e^0 | h_a | s^0)(s^0 | \mu_\rho | g^0)}{E_{ev} - E_{gf} + E_0} \right\} \times \frac{[i|v][v|Q_a|f]}{E_e^0 - E_s^0}$$

$$+ \left\{ \frac{(g^0 | \mu_\rho | s^0)(s^0 | h_a | e^0)(e^0 | \mu_\sigma | g^0)}{E_{ev} - E_{gi} - E_0} + \frac{(g^0 | \mu_\sigma | s^0)(s^0 | h_a | e^0)(e^0 | \mu_\rho | g^0)}{E_{ev} - E_{gf} + E_0} \right\} \times \frac{[i|Q_a|v][v|f]}{E_e^0 - E_s^0}$$

$$C = \sum_{e \neq g} \sum_v \sum_{l \neq g} \sum_a \left\{ \frac{(e^0 | \mu_\rho | g^0)(g^0 | h_a | t^0)(t^0 | \mu_\sigma | e^0)}{E_{ev} - E_{gi} - E_0} + \frac{(e^0 | \mu_\sigma | g^0)(g^0 | h_a | t^0)(t^0 | \mu_\rho | e^0)}{E_{ev} - E_{gf} + E_0} \right\} \times \frac{[i|v][v|Q_a|f]}{E_g^0 - E_t^0}$$

$$+ \left\{ \frac{(e^0 | \mu_\rho | g^0)(g^0 | h_a | t^0)(t^0 | \mu_\sigma | e^0)}{E_{ev} - E_{gi} - E_0} + \frac{(e^0 | \mu_\sigma | t^0)(t^0 | h_a | g^0)(g^0 | \mu_\rho | e^0)}{E_{ev} - E_{gf} + E_0} \right\} \times \frac{[i|Q_a|v][v|f]}{E_g^0 - E_t^0}$$