

See Appendix C.

$$b_1 = k_1 + k_{10} + k_{11} + k_{12} + k_{13} + k_{14} + k_{15} + k_{16} + k_{17} + k_{18} + k_{19} + k_2 + k_{20} + k_{21} + k_{22} + k_{23} + k_{24} + k_{25} + k_{26} + k_{27} + k_3 + k_4 + k_5 + k_6 + k_7 + k_8 + k_9$$

$$b_2 = b_z(-d_1k_1 + d_{19}k_{19} - d_2k_2 + d_{20}k_{20} + d_{21}k_{21} + d_{22}k_{22} + d_{23}k_{23} + d_{24}k_{24} + d_{25}k_{25} + d_{26}k_{26} + d_{27}k_{27} - d_{3}k_3 - d_4k_4 - d_5k_5 - d_6k_6 - d_7k_7 - d_8k_8 - d_9k_9) + \bar{k}_1n_{3,1} + \bar{k}_{10}n_{3,10} + \bar{k}_{11}n_{3,11} + \bar{k}_{12}n_{3,12} + \bar{k}_{13}n_{3,13} + \bar{k}_{14} + \bar{k}_{15}n_{3,15} + \bar{k}_{16}n_{3,16} + \bar{k}_{17}n_{3,17} + \bar{k}_{18}n_{3,18} + \bar{k}_{19}n_{3,19} + \bar{k}_2n_{3,2} + \bar{k}_{20}n_{3,20} + \bar{k}_{21}n_{3,21} + \bar{k}_{22}n_{3,22} + \bar{k}_{23}n_{3,23} + \bar{k}_{24}n_{3,24} + \bar{k}_{25}n_{3,25} + \bar{k}_{26}n_{3,26} + \bar{k}_{27}n_{3,27} + \bar{k}_3n_{3,3} + \bar{k}_4n_{3,4} + \bar{k}_5n_{3,5} + \bar{k}_6n_{3,6} + \bar{k}_7n_{3,7} + \bar{k}_8n_{3,8} + \bar{k}_9n_{3,9}$$

$$b_3 = b_y(-d_1k_1 - d_{10}k_{10} - d_{11}k_{11} - d_{12}k_{12} + d_{16}k_{16} + d_{17}k_{17} + d_{18}k_{18} - d_{19}k_{19} - d_2k_2 - d_{20}k_{20} - d_{21}k_{21} + d_{25}k_{25} + d_{26}k_{26} + d_{27}k_{27} - d_3k_3 + d_7k_7 + d_8k_8 + d_9k_9) + \bar{k}_1n_{2,1} + \bar{k}_{10}n_{2,10} + \bar{k}_{11}n_{2,11} + \bar{k}_{12}n_{2,12} + \bar{k}_{13}n_{2,13} + \bar{k}_{14} + \bar{k}_{15}n_{2,15} + \bar{k}_{16}n_{2,16} + \bar{k}_{17}n_{2,17} + \bar{k}_{18}n_{2,18} + \bar{k}_{19}n_{2,19} + \bar{k}_2n_{2,2} + \bar{k}_{20}n_{2,20} + \bar{k}_{21}n_{2,21} + \bar{k}_{22}n_{2,22} + \bar{k}_{23}n_{2,23} + \bar{k}_{24}n_{2,24} + \bar{k}_{25}n_{2,25} + \bar{k}_{26}n_{2,26} + \bar{k}_{27}n_{2,27} + \bar{k}_3n_{2,3} + \bar{k}_4n_{2,4} + \bar{k}_5n_{2,5} + \bar{k}_6n_{2,6} + \bar{k}_7n_{2,7} + \bar{k}_8n_{2,8} + \bar{k}_9n_{2,9}$$

$$b_4 = -d_1k_1 - d_{10}k_{10} + d_{12}k_{12} - d_{13}k_{13} + d_{15}k_{15} - d_{16}k_{16} + d_{18}k_{18} - d_{19}k_{19} + d_{21}k_{21} - d_{22}k_{22} + d_{24}k_{24} - d_{25}k_{25} + d_{27}k_{27} + d_3k_3 - d_4k_4 + d_6k_6 - d_7k_7 + d_9k_9 + \bar{k}_1n_{1,1} + \bar{k}_{10}n_{1,10} + \bar{k}_{11}n_{1,11} + \bar{k}_{12}n_{1,12} + \bar{k}_{13}n_{1,13} + \bar{k}_{14} + \bar{k}_{15}n_{1,15} + \bar{k}_{16}n_{1,16} + \bar{k}_{17}n_{1,17} + \bar{k}_{18}n_{1,18} + \bar{k}_{19}n_{1,19} + \bar{k}_2n_{1,2} + \bar{k}_{20}n_{1,20} + \bar{k}_{21}n_{1,21} + \bar{k}_{22}n_{1,22} + \bar{k}_{23}n_{1,23} + \bar{k}_{24}n_{1,24} + \bar{k}_{25}n_{1,25} + \bar{k}_{26}n_{1,26} + \bar{k}_{27}n_{1,27} + \bar{k}_3n_{1,3} + \bar{k}_4n_{1,4} + \bar{k}_5n_{1,5} + \bar{k}_6n_{1,6} + \bar{k}_7n_{1,7} + \bar{k}_8n_{1,8} + \bar{k}_9n_{1,9}$$

$$b_5 = \frac{1}{2}((b_z^2 - 1)d_1^2k_1 + b_z^2d_{19}^2k_{19} + b_z^2d_2^2k_2 + b_z^2d_{20}^2k_{20} + b_z^2d_{21}^2k_{21} + b_z^2d_{22}^2k_{22} + b_z^2d_{23}^2k_{23} + b_z^2d_{24}^2k_{24} + b_z^2d_{25}^2k_{25} + b_z^2d_{26}^2k_{26} + b_z^2d_{27}^2k_{27} + b_z^2d_3^2k_3 + b_z^2d_4^2k_4 + b_z^2d_5^2k_5 + b_z^2d_6^2k_6 + b_z^2d_7^2k_7 + b_z^2d_8^2k_8 + b_z^2d_9^2k_9 + 2d_1\bar{k}_1(n_{1,1} - b_zn_{3,1}) + 2b_zd_{19}\bar{k}_{19}n_{3,19} - 2b_zd_2\bar{k}_2n_{3,2} + 2b_zd_{20}\bar{k}_{20}n_{3,20} + 2b_zd_{21}\bar{k}_{21}n_{3,21} + 2b_zd_{22}\bar{k}_{22}n_{3,22} + 2b_zd_{23}\bar{k}_{23}n_{3,23} + 2b_zd_{24}\bar{k}_{24}n_{3,24} + 2b_zd_{25}\bar{k}_{25}n_{3,25} + 2b_zd_{26}\bar{k}_{26}n_{3,26} + 2b_zd_{27}\bar{k}_{27}n_{3,27} - 2b_zd_3\bar{k}_3n_{3,3} - 2b_zd_4\bar{k}_4n_{3,4} - 2b_zd_5\bar{k}_5n_{3,5} - 2b_zd_6\bar{k}_6n_{3,6} - 2b_zd_7\bar{k}_7n_{3,7} - 2b_zd_8\bar{k}_8n_{3,8} - 2b_zd_9\bar{k}_9n_{3,9} - d_{10}^2k_{10} + 2d_{10}\bar{k}_{10}n_{1,10} - d_{12}^2k_{12} - 2d_{12}\bar{k}_{12}n_{1,12} - d_{13}^2k_{13} + 2d_{13}\bar{k}_{13}n_{1,13} - d_{15}^2k_{15} - 2d_{15}\bar{k}_{15}n_{1,15} - d_{16}^2k_{16} + 2d_{16}\bar{k}_{16}n_{1,16} - d_{18}^2k_{18} - 2d_{18}\bar{k}_{18}n_{1,18} - d_{19}^2k_{19} + 2d_{19}\bar{k}_{19}n_{1,19} - d_{21}^2k_{21} - 2d_{21}k_{21}n_{1,21} - d_{22}^2k_{22} + 2d_{22}k_{22}n_{1,22} - d_{24}^2k_{24} - 2d_{24}\bar{k}_{24}n_{1,24} - d_{25}^2k_{25} + 2d_{25}\bar{k}_{25}n_{1,25} - d_{27}^2k_{27} - 2d_{27}\bar{k}_{27}n_{1,27} - d_3^2k_3 - 2d_3\bar{k}_3n_{1,3} - d_4^2k_4 + 2d_4\bar{k}_4n_{1,4} - d_6^2k_6 - 2d_6\bar{k}_6n_{1,6} - d_7^2k_7 + 2d_7\bar{k}_7n_{1,7} - d_9^2k_9 - 2d_9\bar{k}_9n_{1,9})$$

$$b_6 = b_y(b_z(d_1^2k_1 - d_{19}^2k_{19} + d_2^2k_2 - d_{20}^2k_{20} - d_{21}^2k_{21} + d_{25}^2k_{25} + d_{26}^2k_{26} + d_{27}^2k_{27} + d_3^2k_3 - d_7^2k_7 - d_8^2k_8 - d_9^2k_9) - d_1\bar{k}_1n_{3,1} - d_{10}\bar{k}_{10}n_{3,10} - d_{11}\bar{k}_{11}n_{3,11} - d_{12}\bar{k}_{12}n_{3,12} + d_{16}\bar{k}_{16}n_{3,16} + d_{17}\bar{k}_{17}n_{3,17} + d_{18}\bar{k}_{18}n_{3,18} - d_{19}\bar{k}_{19}n_{3,19} - d_2\bar{k}_2n_{3,2} - d_{20}\bar{k}_{20}n_{3,20} - d_{21}\bar{k}_{21}n_{3,21} + d_{25}\bar{k}_{25}n_{3,25} + d_{26}\bar{k}_{26}n_{3,26} + d_{27}\bar{k}_{27}n_{3,27} - d_3\bar{k}_3n_{3,3} + d_7\bar{k}_7n_{3,7} + d_8\bar{k}_8n_{3,8} + d_9\bar{k}_9n_{3,9}) + b_z(-d_1\bar{k}_1n_{2,1} + d_{19}\bar{k}_{19}n_{2,19} - d_2\bar{k}_2n_{2,2} + d_{20}\bar{k}_{20}n_{2,20} + d_{21}\bar{k}_{21}n_{2,21} + d_{22}\bar{k}_{22}n_{2,22} + d_{23}\bar{k}_{23}n_{2,23} + d_{24}\bar{k}_{24}n_{2,24} + d_{25}\bar{k}_{25}n_{2,25} + d_{26}\bar{k}_{26}n_{2,26} + d_{27}\bar{k}_{27}n_{2,27} - d_3\bar{k}_3n_{2,3} - d_4\bar{k}_4n_{2,4} - d_5\bar{k}_5n_{2,5} - d_6\bar{k}_6n_{2,6} - d_7\bar{k}_7n_{2,7} - d_8\bar{k}_8n_{2,8} - d_9\bar{k}_9n_{2,9})$$

$$b_7 = \frac{1}{2}((b_y^2 - 1)d_1^2k_1 + (b_y^2 - 1)d_{10}^2k_{10} + b_y^2d_{11}^2k_{11} + b_y^2d_{12}^2k_{12} + b_y^2d_{16}^2k_{16} + b_y^2d_{17}^2k_{17} + b_y^2d_{18}^2k_{18} + b_y^2d_{19}^2k_{19} + b_y^2d_2^2k_2 + b_y^2d_{20}^2k_{20} + b_y^2d_{21}^2k_{21} + b_y^2d_{25}^2k_{25} + b_y^2d_{26}^2k_{26} + b_y^2d_{27}^2k_{27} + b_y^2d_3^2k_3 + b_y^2d_7^2k_7 + b_y^2d_8^2k_8 + b_y^2d_9^2k_9 + 2d_1\bar{k}_1(n_{1,1} - b_yn_{2,1}) + 2d_{10}\bar{k}_{10}(n_{1,10} - b_yn_{2,10}) - 2b_yd_{11}\bar{k}_{11}n_{2,11} - 2b_yd_{12}\bar{k}_{12}n_{2,12} + 2b_yd_{16}\bar{k}_{16}n_{2,16} + 2b_yd_{17}\bar{k}_{17}n_{2,17} + 2b_yd_{18}\bar{k}_{18}n_{2,18} - 2b_yd_{19}\bar{k}_{19}n_{2,19} - 2b_yd_2\bar{k}_2n_{2,2} - 2b_yd_{20}\bar{k}_{20}n_{2,20} - 2b_yd_{21}\bar{k}_{21}n_{2,21} + 2b_yd_{25}\bar{k}_{25}n_{2,25} + 2b_yd_{26}\bar{k}_{26}n_{2,26} + 2b_yd_{27}\bar{k}_{27}n_{2,27} - 2b_yd_3\bar{k}_3n_{2,3} + 2b_yd_7\bar{k}_7n_{2,7} + 2b_yd_8\bar{k}_8n_{2,8} + 2b_yd_9\bar{k}_9n_{2,9} - d_{12}^2k_{12} - 2d_{12}\bar{k}_{12}n_{1,12} - d_{13}^2k_{13} + 2d_{13}\bar{k}_{13}n_{1,13} - d_{15}^2k_{15} - 2d_{15}\bar{k}_{15}n_{1,15} - d_{16}^2k_{16} + 2d_{16}\bar{k}_{16}n_{1,16} - d_{18}^2k_{18} - 2d_{18}\bar{k}_{18}n_{1,18} - d_{19}^2k_{19} + 2d_{19}\bar{k}_{19}n_{1,19} - d_{21}^2k_{21} - 2d_{21}\bar{k}_{21}n_{1,21} - d_{22}^2k_{22} + 2d_{22}\bar{k}_{22}n_{1,22} - d_{24}^2k_{24} - 2d_{24}\bar{k}_{24}n_{1,24} - d_{25}^2k_{25} + 2d_{25}\bar{k}_{25}n_{1,25} - d_{27}^2k_{27} - 2d_{27}\bar{k}_{27}n_{1,27} - d_3^2k_3 - 2d_3\bar{k}_3n_{1,3} - d_4^2k_4 + 2d_4\bar{k}_4n_{1,4} - d_6^2k_6 - 2d_6\bar{k}_6n_{1,6} - d_7^2k_7 + 2d_7\bar{k}_7n_{1,7} - d_9^2k_9 - 2d_9\bar{k}_9n_{1,9})$$

$$b_8 = b_z(d_1^2k_1 - d_1\bar{k}_1n_{1,1} - d_{19}^2k_{19} + d_{19}\bar{k}_{19}n_{1,19} - d_2\bar{k}_2n_{1,2} + d_{20}\bar{k}_{20}n_{1,20} + d_{21}^2k_{21} + d_{21}\bar{k}_{21}n_{1,21} - d_{22}^2k_{22} +$$

$$d_{22}\bar{k}_{22}n_{1,22} + d_{23}\bar{k}_{23}n_{1,23} + d_{24}^2k_{24} + d_{24}\bar{k}_{24}n_{1,24} - d_{25}^2k_{25} + d_{25}\bar{k}_{25}n_{1,25} + d_{26}\bar{k}_{26}n_{1,26} + d_{27}^2k_{27} + d_{27}\bar{k}_{27}n_{1,27} - d_3^2k_3 - d_3\bar{k}_3n_{1,3} + d_4^2k_4 - d_4\bar{k}_4n_{1,4} - d_5\bar{k}_5n_{1,5} - d_6^2k_6 - d_6\bar{k}_6n_{1,6} + d_7^2k_7 - d_7\bar{k}_7n_{1,7} - d_8\bar{k}_8n_{1,8} - d_9^2k_9 - d_9\bar{k}_9n_{1,9}) - d_1\bar{k}_1n_{3,1} - d_{10}\bar{k}_{10}n_{3,10} + d_{12}\bar{k}_{12}n_{3,12} - d_{13}\bar{k}_{13}n_{3,13} + d_{15}\bar{k}_{15}n_{3,15} - d_{16}\bar{k}_{16}n_{3,16} + d_{18}\bar{k}_{18}n_{3,18} - d_{19}\bar{k}_{19}n_{3,19} + d_{21}\bar{k}_{21}n_{3,21} - d_{22}\bar{k}_{22}n_{3,22} + d_{24}\bar{k}_{24}n_{3,24} - d_{25}\bar{k}_{25}n_{3,25} + d_{27}\bar{k}_{27}n_{3,27} + d_3\bar{k}_3n_{3,3} - d_4\bar{k}_4n_{3,4} + d_6\bar{k}_6n_{3,6} - d_7\bar{k}_7n_{3,7} + d_9\bar{k}_9n_{3,9}$$

$$b_9 = b_y(d_1^2k_1 - d_1\bar{k}_1n_{1,1} + d_{10}^2k_{10} - d_{10}\bar{k}_{10}n_{1,10} - d_{11}\bar{k}_{11}n_{1,11} - d_{12}^2k_{12} - d_{12}\bar{k}_{12}n_{1,12} - d_{16}^2k_{16} + d_{16}\bar{k}_{16}n_{1,16} + d_{17}\bar{k}_{17}n_{1,17} + d_{18}^2k_{18} + d_{18}\bar{k}_{18}n_{1,18} + d_{19}^2k_{19} - d_{19}\bar{k}_{19}n_{1,19} - d_{20}\bar{k}_{20}n_{1,20} - d_{21}^2k_{21} - d_{21}\bar{k}_{21}n_{1,21} - d_{25}^2k_{25} + d_{25}\bar{k}_{25}n_{1,25} + d_{26}\bar{k}_{26}n_{1,26} + d_{27}^2k_{27} + d_{27}\bar{k}_{27}n_{1,27} - d_3^2k_3 - d_3\bar{k}_3n_{1,3} - d_7^2k_7 + d_7\bar{k}_7n_{1,7} + d_8\bar{k}_8n_{1,8} + d_9^2k_9 + d_9\bar{k}_9n_{1,9}) - d_1\bar{k}_1n_{2,1} - d_{10}\bar{k}_{10}n_{2,10} + d_{12}\bar{k}_{12}n_{2,12} - d_{13}\bar{k}_{13}n_{2,13} + d_{15}\bar{k}_{15}n_{2,15} - d_{16}\bar{k}_{16}n_{2,16} + d_{18}\bar{k}_{18}n_{2,18} - d_{19}\bar{k}_{19}n_{2,19} + d_{21}\bar{k}_{21}n_{2,21} - d_{22}\bar{k}_{22}n_{2,22} + d_{24}\bar{k}_{24}n_{2,24} - d_{25}\bar{k}_{25}n_{2,25} + d_{27}\bar{k}_{27}n_{2,27} + d_3\bar{k}_3n_{2,3} - d_4\bar{k}_4n_{2,4} + d_6\bar{k}_6n_{2,6} - d_7\bar{k}_7n_{2,7} + d_9\bar{k}_9n_{2,9}$$

$$b_{10} = \frac{1}{2}(b_z^3(d_1^3(-k_1) + d_{19}^3k_{19} - d_2^3k_2 + d_{20}^3k_{20} + d_{21}^3k_{21} + d_{22}^3k_{22} + d_{24}^3k_{24} + d_{25}^3k_{25} + d_{26}^3k_{26} + d_{27}^3k_{27} - d_3^3k_3 - d_4^3k_4 - d_5^3k_5 - d_6^3k_6 - d_7^3k_7 - d_8^3k_8 - d_9^3k_9) + 3b_z^2(d_1^2\bar{k}_1n_{3,1} + d_{19}^2\bar{k}_{19}n_{3,19} + d_2^2\bar{k}_2n_{3,2} + d_{20}^2\bar{k}_{20}n_{3,20} + d_{21}^2\bar{k}_{21}n_{3,21} + d_{22}^2\bar{k}_{22}n_{3,22} + d_{23}^2\bar{k}_{23}n_{3,23} + d_{24}^2\bar{k}_{24}n_{3,24} + d_{25}^2\bar{k}_{25}n_{3,25} + d_{26}^2\bar{k}_{26}n_{3,26} + d_{27}^2\bar{k}_{27}n_{3,27} + d_3^2\bar{k}_3n_{3,3} + d_4^2\bar{k}_4n_{3,4} + d_5^2\bar{k}_5n_{3,5} + d_6^2\bar{k}_6n_{3,6} + d_7^2\bar{k}_7n_{3,7} + d_8^2\bar{k}_8n_{3,8} + d_9^2\bar{k}_9n_{3,9}) + 3b_z(d_1^3k_1 - 2d_1^2\bar{k}_1n_{1,1} - d_{19}^3k_{19} + 2d_{19}^2\bar{k}_{19}n_{1,19} - d_{21}^3k_{21} - 2d_{21}^2\bar{k}_{21}n_{1,21} - d_{22}^3k_{22} + 2d_{22}^2\bar{k}_{22}n_{1,22} - d_{24}^3k_{24} - 2d_{24}^2\bar{k}_{24}n_{1,24} - d_{25}^3k_{25} + 2d_{25}^2\bar{k}_{25}n_{1,25} - d_{27}^3k_{27} - 2d_{27}^2\bar{k}_{27}n_{1,27} + d_3^3k_3 + 2d_3^2\bar{k}_3n_{1,3} - d_7^3k_7 + 2d_7^2\bar{k}_7n_{1,7} - d_9^3k_9 - 2d_9^2\bar{k}_9n_{1,9}) + (b_z^2 - 1)d_1^2\bar{k}_1n_{2,1} + b_z^2d_{19}^2\bar{k}_{19}n_{2,19} + b_z^2d_2^2\bar{k}_2n_{2,2} + b_z^2d_{20}^2\bar{k}_{20}n_{2,20} + b_z^2d_{21}^2\bar{k}_{21}n_{2,21} + b_z^2d_{22}^2\bar{k}_{22}n_{2,22} + b_z^2d_{23}^2\bar{k}_{23}n_{2,23} + b_z^2d_{24}^2\bar{k}_{24}n_{2,24} + b_z^2d_{25}^2\bar{k}_{25}n_{2,25} + b_z^2d_{26}^2\bar{k}_{26}n_{2,26} + b_z^2d_{27}^2\bar{k}_{27}n_{2,27} + b_z^2d_3^2\bar{k}_3n_{2,3} + b_z^2d_4^2\bar{k}_4n_{2,4} + b_z^2d_5^2\bar{k}_5n_{2,5} + b_z^2d_6^2\bar{k}_6n_{2,6} + b_z^2d_7^2\bar{k}_7n_{2,7} + b_z^2d_8^2\bar{k}_8n_{2,8} + b_z^2d_9^2\bar{k}_9n_{2,9} - d_{10}^2\bar{k}_{10}n_{2,10} - d_{12}^2\bar{k}_{12}n_{2,12} - d_{13}^2\bar{k}_{13}n_{2,13} - d_{15}^2\bar{k}_{15}n_{2,15} - d_{16}^2\bar{k}_{16}n_{2,16} - d_{18}^2\bar{k}_{18}n_{2,18} - d_{19}^2\bar{k}_{19}n_{2,19} - d_{21}^2\bar{k}_{21}n_{2,21} - d_{22}^2\bar{k}_{22}n_{2,22} - d_{24}^2\bar{k}_{24}n_{2,24} - d_{25}^2\bar{k}_{25}n_{2,25} - d_{27}^2\bar{k}_{27}n_{2,27} - d_3^2\bar{k}_3n_{2,3} - d_4^2\bar{k}_4n_{2,4} - d_6^2\bar{k}_6n_{2,6} - d_7^2\bar{k}_7n_{2,7} - d_9^2\bar{k}_9n_{2,9})$$

$$b_{11} = \frac{1}{2}(b_y(d_1^3(k_1 - b_z^2k_1) - b_z^2d_{19}^3k_{19} - b_z^2d_2^3k_2 - b_z^2d_{20}^3k_{20} - b_z^2d_{21}^3k_{21} + b_z^2d_{25}^3k_{25} + b_z^2d_{26}^3k_{26} + b_z^2d_{27}^3k_{27} - b_z^2d_3^3k_3 + b_z^2d_7^3k_7 + b_z^2d_8^3k_8 + b_z^2d_9^3k_9 - 2d_1^2\bar{k}_1(n_{1,1} - b_zn_{3,1}) - 2b_zd_{19}^2\bar{k}_{19}n_{3,19} + 2b_zd_2^2\bar{k}_2n_{3,2} - 2b_zd_{20}^2\bar{k}_{20}n_{3,20} - 2b_zd_{21}^2\bar{k}_{21}n_{3,21} + 2b_zd_{25}^2\bar{k}_{25}n_{3,25} + 2b_zd_{26}^2\bar{k}_{26}n_{3,26} + 2b_zd_{27}^2\bar{k}_{27}n_{3,27} + 2b_zd_3^2\bar{k}_3n_{3,3} - 2b_zd_7^2\bar{k}_7n_{3,7} - 2b_zd_8^2\bar{k}_8n_{3,8} - 2b_zd_9^2\bar{k}_9n_{3,9} + d_{10}^2\bar{k}_{10}n_{1,10} - 2d_{12}^2\bar{k}_{12}n_{1,12} + 2d_{16}^2\bar{k}_{16}n_{1,16} + 2d_{18}^2\bar{k}_{18}n_{1,18} + d_{19}^2\bar{k}_{19}n_{1,19} + d_{21}^2\bar{k}_{21}n_{1,21} + 2d_{22}^2\bar{k}_{22}n_{1,22} - d_{24}^2\bar{k}_{24}n_{1,24} - d_3^2\bar{k}_3n_{1,3} + d_4^2\bar{k}_4n_{1,4} + d_6^2\bar{k}_6n_{1,6} + d_7^2\bar{k}_7n_{1,7} - d_9^2\bar{k}_9n_{1,9}) + (b_z^2 - 1)d_1^2\bar{k}_1n_{2,1} + b_z^2d_{19}^2\bar{k}_{19}n_{2,19} + b_z^2d_2^2\bar{k}_2n_{2,2} + b_z^2d_{20}^2\bar{k}_{20}n_{2,20} + b_z^2d_{21}^2\bar{k}_{21}n_{2,21} + b_z^2d_{22}^2\bar{k}_{22}n_{2,22} + b_z^2d_{23}^2\bar{k}_{23}n_{2,23} + b_z^2d_{24}^2\bar{k}_{24}n_{2,24} + b_z^2d_{25}^2\bar{k}_{25}n_{2,25} + b_z^2d_{26}^2\bar{k}_{26}n_{2,26} + b_z^2d_{27}^2\bar{k}_{27}n_{2,27} + b_z^2d_3^2\bar{k}_3n_{2,3} + b_z^2d_4^2\bar{k}_4n_{2,4} + b_z^2d_5^2\bar{k}_5n_{2,5} + b_z^2d_6^2\bar{k}_6n_{2,6} + b_z^2d_7^2\bar{k}_7n_{2,7} + b_z^2d_8^2\bar{k}_8n_{2,8} + b_z^2d_9^2\bar{k}_9n_{2,9} - d_{10}^2\bar{k}_{10}n_{2,10} - d_{12}^2\bar{k}_{12}n_{2,12} - d_{13}^2\bar{k}_{13}n_{2,13} - d_{15}^2\bar{k}_{15}n_{2,15} - d_{16}^2\bar{k}_{16}n_{2,16} - d_{18}^2\bar{k}_{18}n_{2,18} - d_{19}^2\bar{k}_{19}n_{2,19} - d_{21}^2\bar{k}_{21}n_{2,21} - d_{22}^2\bar{k}_{22}n_{2,22} - d_{24}^2\bar{k}_{24}n_{2,24} - d_{25}^2\bar{k}_{25}n_{2,25} - d_{27}^2\bar{k}_{27}n_{2,27} - d_3^2\bar{k}_3n_{2,3} - d_4^2\bar{k}_4n_{2,4} - d_6^2\bar{k}_6n_{2,6} - d_7^2\bar{k}_7n_{2,7} - d_9^2\bar{k}_9n_{2,9})$$

$$b_{12} = \frac{1}{2}(b_z(d_1^3(k_1 - b_y^2k_1) + (b_y^2 - 1)d_{19}^3k_{19} - b_y^2d_2^3k_2 + b_y^2d_{20}^3k_{20} + b_y^2d_{21}^3k_{21} + b_y^2d_{25}^3k_{25} + b_y^2d_{26}^3k_{26} + b_y^2d_{27}^3k_{27} - b_y^2d_3^3k_3 - b_y^2d_7^3k_7 - b_y^2d_8^3k_8 - b_y^2d_9^3k_9 - 2d_1^2\bar{k}_1(n_{1,1} - b_yn_{2,1}) + 2d_{19}^2\bar{k}_{19}(n_{1,19} - b_yn_{2,19}) + 2b_yd_2^2\bar{k}_2n_{2,2} - 2b_yd_{20}^2\bar{k}_{20}n_{2,20} - 2b_yd_{21}^2\bar{k}_{21}n_{2,21} + 2b_yd_{25}^2\bar{k}_{25}n_{2,25} + 2b_yd_{26}^2\bar{k}_{26}n_{2,26} + 2b_yd_{27}^2\bar{k}_{27}n_{2,27} + 2b_yd_3^2\bar{k}_3n_{2,3} - 2b_yd_7^2\bar{k}_7n_{2,7} - 2b_yd_8^2\bar{k}_8n_{2,8} - 2b_yd_9^2\bar{k}_9n_{2,9} - d_{21}^3k_{21} - 2d_{22}^2\bar{k}_{21}n_{1,21} - d_{22}^3k_{22} + 2d_{22}^2\bar{k}_{22}n_{1,22} - d_{24}^3k_{24} - 2d_{24}^2\bar{k}_{24}n_{1,24} - d_{25}^3k_{25} + 2d_{25}^2\bar{k}_{25}n_{1,25} - d_{27}^3k_{27} - 2d_{27}^2\bar{k}_{27}n_{1,27} + d_3^3k_3 + 2d_3^2\bar{k}_3n_{1,3} + d_4^3k_4 - 2d_4^2\bar{k}_4n_{1,4} + d_6^2\bar{k}_6n_{1,6} + d_7^3k_7 - 2d_7^2\bar{k}_7n_{1,7} + d_9^3k_9 + 2d_9^2\bar{k}_9n_{1,9}) + (b_y^2 - 1)d_1^2\bar{k}_1n_{3,1} + b_y^2d_{10}^2\bar{k}_{10}n_{3,10} + b_y^2d_{11}^2\bar{k}_{11}n_{3,11} + b_y^2d_{12}^2\bar{k}_{12}n_{3,12} + b_y^2d_{16}^2\bar{k}_{16}n_{3,16} + b_y^2d_{17}^2\bar{k}_{17}n_{3,17} + b_y^2d_{18}^2\bar{k}_{18}n_{3,18} + b_y^2d_{19}^2\bar{k}_{19}n_{3,19} + b_y^2d_2^2\bar{k}_2n_{3,2} + b_y^2d_{20}^2\bar{k}_{20}n_{3,20} + b_y^2d_{21}^2\bar{k}_{21}n_{3,21} + b_y^2d_{25}^2\bar{k}_{25}n_{3,25} + b_y^2d_{26}^2\bar{k}_{26}n_{3,26} + b_y^2d_{27}^2\bar{k}_{27}n_{3,27} + b_y^2d_3^2\bar{k}_3n_{3,3} + b_y^2d_8^2\bar{k}_8n_{3,8} + b_y^2d_9^2\bar{k}_9n_{3,9} - d_{10}^2\bar{k}_{10}n_{3,10} - d_{12}^2\bar{k}_{12}n_{3,12} - d_{13}^2\bar{k}_{13}n_{3,13} - d_{15}^2\bar{k}_{15}n_{3,15} - d_{16}^2\bar{k}_{16}n_{3,16} - d_{18}^2\bar{k}_{18}n_{3,18} - d_{19}^2\bar{k}_{19}n_{3,19} - d_{21}^2\bar{k}_{21}n_{3,21} - d_{22}^2\bar{k}_{22}n_{3,22} - d_{24}^2\bar{k}_{24}n_{3,24} - d_{25}^2\bar{k}_{25}n_{3,25} - d_{27}^2\bar{k}_{27}n_{3,27} - d_3^2\bar{k}_3n_{3,3} - d_4^2\bar{k}_4n_{3,4} - d_6^2\bar{k}_6n_{3,6} - d_7^2\bar{k}_7n_{3,7} - d_9^2\bar{k}_9n_{3,9})$$

$$b_{13} = \frac{1}{6}(b_y^3(d_1^3(-k_1) - d_{10}^3k_{10} - d_{11}^3k_{11} - d_{12}^3k_{12} + d_{16}^3k_{16} + d_{17}^3k_{17} + d_{18}^3k_{18} - d_{19}^3k_{19} - d_2^3k_2 - d_{20}^3k_{20} - d_{21}^3k_{21} + d_{25}^3k_{25} + d_{26}^3k_{26} + d_{27}^3k_{27} - d_3^3k_3 - d_7^3k_7 + d_8^3k_8 + d_9^3k_9) + 3b_y^2(d_1^2\bar{k}_1n_{2,1} + d_{10}^2\bar{k}_{10}n_{2,10} + d_{11}^2\bar{k}_{11}n_{2,11} +$$

$$\begin{aligned}
& d_{12}^2 \bar{k}_{12} n_{2,12} + d_{16}^2 \bar{k}_{16} n_{2,16} + d_{17}^2 \bar{k}_{17} n_{2,17} + d_{18}^2 \bar{k}_{18} n_{2,18} + d_{19}^2 \bar{k}_{19} n_{2,19} + d_2^2 \bar{k}_2 n_{2,2} + d_{20}^2 \bar{k}_{20} n_{2,20} + d_{21}^2 \bar{k}_{21} n_{2,21} + \\
& d_{25}^2 \bar{k}_{25} n_{2,25} + d_{26}^2 \bar{k}_{26} n_{2,26} + d_{27}^2 \bar{k}_{27} n_{2,27} + d_3^2 \bar{k}_3 n_{2,3} + d_7^2 \bar{k}_7 n_{2,7} + d_8^2 \bar{k}_8 n_{2,8} + d_9^2 \bar{k}_9 n_{2,9}) + 3b_y(d_1^3 k_1 - 2d_1^2 \bar{k}_1 n_{1,1} + \\
& d_{10}^3 k_{10} - 2d_{10}^2 \bar{k}_{10} n_{1,10} + d_{12}^3 k_{12} + 2d_{12}^2 \bar{k}_{12} n_{1,12} - d_{16}^3 k_{16} + 2d_{16}^2 \bar{k}_{16} n_{1,16} - d_{18}^3 k_{18} - 2d_{18}^2 \bar{k}_{18} n_{1,18} + d_{19}^3 k_{19} - \\
& 2d_{19}^2 \bar{k}_{19} n_{1,19} + d_{21}^3 k_{21} + 2d_{21}^2 \bar{k}_{21} n_{1,21} - d_{25}^3 k_{25} + 2d_{25}^2 \bar{k}_{25} n_{1,25} - d_{27}^3 k_{27} - 2d_{27}^2 \bar{k}_{27} n_{1,27} + d_3^3 k_3 + 2d_3^2 \bar{k}_3 n_{1,3} - \\
& d_7^3 k_7 + 2d_7^2 \bar{k}_7 n_{1,7} - d_9^3 k_9 - 2d_9^2 \bar{k}_9 n_{1,9}) - 3(d_2^2 \bar{k}_1 n_{2,1} + d_{10}^2 \bar{k}_{10} n_{2,10} + d_{12}^2 \bar{k}_{12} n_{2,12} + d_{13}^2 \bar{k}_{13} n_{2,13} + d_{15}^2 \bar{k}_{15} n_{2,15} + \\
& d_{16}^2 \bar{k}_{16} n_{2,16} + d_{18}^2 \bar{k}_{18} n_{2,18} + d_{19}^2 \bar{k}_{19} n_{2,19} + d_{21}^2 \bar{k}_{21} n_{2,21} + d_{22}^2 \bar{k}_{22} n_{2,22} + d_{24}^2 \bar{k}_{24} n_{2,24} + d_{25}^2 \bar{k}_{25} n_{2,25} + d_{27}^2 \bar{k}_{27} n_{2,27} + \\
& d_3^2 \bar{k}_3 n_{2,3} + d_4^2 \bar{k}_4 n_{2,4} + d_6^2 \bar{k}_6 n_{2,6} + d_7^2 \bar{k}_7 n_{2,7} + d_9^2 \bar{k}_9 n_{2,9})
\end{aligned}$$

$$\begin{aligned}
b_{14} = & \frac{1}{6}(d_1^3(k_1 - 3b_z^2 k_1) + 3d_1^2 \bar{k}_1((b_z^2 - 1)n_{1,1} + 2b_z n_{3,1}) - 3b_z^2 d_{19}^3 k_{19} + 3b_z^2 d_{19}^2 \bar{k}_{19} n_{1,19} + 3b_z^2 d_2^2 \bar{k}_2 n_{1,2} + \\
& 3b_z^2 d_{20}^2 \bar{k}_{20} n_{1,20} + 3b_z^2 d_{21}^3 k_{21} + 3b_z^2 d_{21}^2 \bar{k}_{21} n_{1,21} - 3b_z^2 d_{22}^3 k_{22} + 3b_z^2 d_{22}^2 \bar{k}_{22} n_{1,22} + 3b_z^2 d_{23}^2 \bar{k}_{23} n_{1,23} + 3b_z^2 d_3^3 k_{24} + \\
& 3b_z^2 d_{24}^2 \bar{k}_{24} n_{1,24} - 3b_z^2 d_{25}^3 k_{25} + 3b_z^2 d_{25}^2 \bar{k}_{25} n_{1,25} + 3b_z^2 d_{26}^2 \bar{k}_{26} n_{1,26} + 3b_z^2 d_{27}^3 k_{27} + 3b_z^2 d_{27}^2 \bar{k}_{27} n_{1,27} + 3b_z^2 d_3^3 k_3 + \\
& 3b_z^2 d_3^2 \bar{k}_3 n_{1,3} - 3b_z^2 d_4^3 k_4 + 3b_z^2 d_4^2 \bar{k}_4 n_{1,4} + 3b_z^2 d_5^2 \bar{k}_5 n_{1,5} + 3b_z^2 d_6^3 k_6 + 3b_z^2 d_6^2 \bar{k}_6 n_{1,6} - 3b_z^2 d_7^3 k_7 + 3b_z^2 d_7^2 \bar{k}_7 n_{1,7} + \\
& 3b_z^2 d_8^2 \bar{k}_8 n_{1,8} + 3b_z^2 d_9^3 k_9 + 3b_z^2 d_9^2 \bar{k}_9 n_{1,9} - 6b_z d_{19}^2 \bar{k}_{19} n_{3,19} + 6b_z d_{21}^2 \bar{k}_{21} n_{3,21} - 6b_z d_{22}^2 \bar{k}_{22} n_{3,22} + 6b_z d_{24}^2 \bar{k}_{24} n_{3,24} - \\
& 6b_z d_{25}^2 \bar{k}_{25} n_{3,25} + 6b_z d_{27}^2 \bar{k}_{27} n_{3,27} - 6b_z d_3^2 \bar{k}_3 n_{3,3} + 6b_z d_4^2 \bar{k}_4 n_{3,4} - 6b_z d_6^2 \bar{k}_6 n_{3,6} + 6b_z d_7^2 \bar{k}_7 n_{3,7} - 6b_z d_9^2 \bar{k}_9 n_{3,9} + d_{10}^3 k_{10} - \\
& 3d_{10}^2 \bar{k}_{10} n_{1,10} - d_{12}^3 k_{12} - 3d_{12}^2 \bar{k}_{12} n_{1,12} + d_{13}^3 k_{13} - 3d_{13}^2 \bar{k}_{13} n_{1,13} - d_{15}^3 k_{15} - 3d_{15}^2 \bar{k}_{15} n_{1,15} + d_{16}^3 k_{16} - 3d_{16}^2 \bar{k}_{16} n_{1,16} - \\
& d_{18}^3 k_{18} - 3d_{18}^2 \bar{k}_{18} n_{1,18} + d_{19}^3 k_{19} - 3d_{19}^2 \bar{k}_{19} n_{1,19} - d_{21}^3 k_{21} - 3d_{21}^2 \bar{k}_{21} n_{1,21} + d_{22}^3 k_{22} - 3d_{22}^2 \bar{k}_{22} n_{1,22} - d_{24}^3 k_{24} - \\
& 3d_{24}^2 \bar{k}_{24} n_{1,24} + d_{25}^3 k_{25} - 3d_{25}^2 \bar{k}_{25} n_{1,25} - d_{27}^3 k_{27} - 3d_{27}^2 \bar{k}_{27} n_{1,27} - d_3^3 k_3 - 3d_3^2 \bar{k}_3 n_{1,3} + d_4^3 k_4 - 3d_4^2 \bar{k}_4 n_{1,4} - d_6^3 k_6 - \\
& 3d_6^2 \bar{k}_6 n_{1,6} + d_7^3 k_7 - 3d_7^2 \bar{k}_7 n_{1,7} - d_9^3 k_9 - 3d_9^2 \bar{k}_9 n_{1,9})
\end{aligned}$$

$$\begin{aligned}
b_{15} = & b_z(b_z(d_1^3(-k_1) + d_1^2 \bar{k}_1 n_{1,1} + d_{19}^3 k_{19} - d_{19}^2 \bar{k}_{19} n_{1,19} + d_2^2 \bar{k}_2 n_{1,2} - d_{20}^2 \bar{k}_{20} n_{1,20} - d_{21}^3 k_{21} - d_{21}^2 \bar{k}_{21} n_{1,21} - \\
& d_{25}^3 k_{25} + d_{25}^2 \bar{k}_{25} n_{1,25} + d_{26}^2 \bar{k}_{26} n_{1,26} + d_{27}^3 k_{27} + d_{27}^2 \bar{k}_{27} n_{1,27} + d_3^3 k_3 + d_3^2 \bar{k}_3 n_{1,3} + d_7^3 k_7 - d_7^2 \bar{k}_7 n_{1,7} - d_8^2 \bar{k}_8 n_{1,8} - \\
& d_9^3 k_9 - d_9^2 \bar{k}_9 n_{1,9}) + d_1^2 \bar{k}_1 n_{3,1} + d_{10}^2 \bar{k}_{10} n_{3,10} - d_{12}^2 \bar{k}_{12} n_{3,12} - d_{16}^2 \bar{k}_{16} n_{3,16} + d_{18}^2 \bar{k}_{18} n_{3,18} + d_{19}^2 \bar{k}_{19} n_{3,19} - d_{21}^2 \bar{k}_{21} n_{3,21} - \\
& d_{25}^2 \bar{k}_{25} n_{3,25} + d_{27}^2 \bar{k}_{27} n_{3,27} - d_3^2 \bar{k}_3 n_{3,3} - d_7^2 \bar{k}_7 n_{3,7} + d_9^2 \bar{k}_9 n_{3,9}) + b_z(d_1^2 \bar{k}_1 n_{2,1} - d_{19}^2 \bar{k}_{19} n_{2,19} + d_{21}^2 \bar{k}_{21} n_{2,21} - d_{22}^2 \bar{k}_{22} n_{2,22} + \\
& d_{24}^2 \bar{k}_{24} n_{2,24} - d_{25}^2 \bar{k}_{25} n_{2,25} + d_{27}^2 \bar{k}_{27} n_{2,27} - d_3^2 \bar{k}_3 n_{2,3} + d_4^2 \bar{k}_4 n_{2,4} - d_6^2 \bar{k}_6 n_{2,6} + d_7^2 \bar{k}_7 n_{2,7} - d_9^2 \bar{k}_9 n_{2,9})
\end{aligned}$$

$$\begin{aligned}
b_{16} = & \frac{1}{6}(d_1^3(k_1 - 3b_y^2 k_1) + 3d_1^2 \bar{k}_1((b_y^2 - 1)n_{1,1} + 2b_y n_{2,1}) + d_1^3(k_{10} - 3b_y^2 k_{10}) + 3d_{10}^2 \bar{k}_{10}((b_y^2 - 1)n_{1,10} + \\
& 2b_y n_{2,10}) + 3b_y^2 d_{11}^2 \bar{k}_{11} n_{1,11} + 3b_y^2 d_{12}^3 k_{12} + 3b_y^2 d_{12}^2 \bar{k}_{12} n_{1,12} - 3b_y^2 d_{16}^3 k_{16} + 3b_y^2 d_{16}^2 \bar{k}_{16} n_{1,16} + 3b_y^2 d_{17}^2 \bar{k}_{17} n_{1,17} + \\
& 3b_y^2 d_{18}^3 k_{18} + 3b_y^2 d_{18}^2 \bar{k}_{18} n_{1,18} - 3b_y^2 d_{19}^3 k_{19} + 3b_y^2 d_{19}^2 \bar{k}_{19} n_{1,19} + 3b_y^2 d_2^2 \bar{k}_2 n_{1,2} + 3b_y^2 d_{20}^2 \bar{k}_{20} n_{1,20} + 3b_y^2 d_{21}^3 k_{21} + \\
& 3b_y^2 d_{21}^2 \bar{k}_{21} n_{1,21} - 3b_y^2 d_{25}^3 k_{25} + 3b_y^2 d_{25}^2 \bar{k}_{25} n_{1,25} + 3b_y^2 d_{26}^2 \bar{k}_{26} n_{1,26} + 3b_y^2 d_{27}^2 \bar{k}_{27} n_{1,27} + 3b_y^2 d_3^3 k_3 + \\
& 3b_y^2 d_3^2 \bar{k}_3 n_{1,3} - 3b_y^2 d_7^3 k_7 + 3b_y^2 d_7^2 \bar{k}_7 n_{1,7} + 3b_y^2 d_8^2 \bar{k}_8 n_{1,8} + 3b_y^2 d_9^3 k_9 + 3b_y^2 d_9^2 \bar{k}_9 n_{1,9} - 6b_y d_{12}^2 \bar{k}_{12} n_{2,12} - 6b_y d_{16}^2 \bar{k}_{16} n_{2,16} + \\
& 6b_y d_{18}^2 \bar{k}_{18} n_{2,18} + 6b_y d_{19}^2 \bar{k}_{19} n_{2,19} - 6b_y d_{21}^2 \bar{k}_{21} n_{2,21} - 6b_y d_{25}^2 \bar{k}_{25} n_{2,25} + 6b_y d_{27}^2 \bar{k}_{27} n_{2,27} - 6b_y d_3^2 \bar{k}_3 n_{2,3} - 6b_y d_7^2 \bar{k}_7 n_{2,7} + \\
& 6b_y d_9^2 \bar{k}_9 n_{2,9} - d_{12}^3 k_{12} - 3d_{12}^2 \bar{k}_{12} n_{1,12} + d_{13}^3 k_{13} - 3d_{13}^2 \bar{k}_{13} n_{1,13} - d_{15}^3 k_{15} - 3d_{15}^2 \bar{k}_{15} n_{1,15} + d_{16}^3 k_{16} - 3d_{16}^2 \bar{k}_{16} n_{1,16} - \\
& d_{18}^3 k_{18} - 3d_{18}^2 \bar{k}_{18} n_{1,18} + d_{19}^3 k_{19} - 3d_{19}^2 \bar{k}_{19} n_{1,19} - d_{21}^3 k_{21} - 3d_{21}^2 \bar{k}_{21} n_{1,21} + d_{22}^3 k_{22} - 3d_{22}^2 \bar{k}_{22} n_{1,22} - d_{24}^3 k_{24} - \\
& 3d_{24}^2 \bar{k}_{24} n_{1,24} + d_{25}^3 k_{25} - 3d_{25}^2 \bar{k}_{25} n_{1,25} - d_{27}^3 k_{27} - 3d_{27}^2 \bar{k}_{27} n_{1,27} - d_3^3 k_3 - 3d_3^2 \bar{k}_3 n_{1,3} + d_4^3 k_4 - 3d_4^2 \bar{k}_4 n_{1,4} - d_6^3 k_6 - \\
& 3d_6^2 \bar{k}_6 n_{1,6} + d_7^3 k_7 - 3d_7^2 \bar{k}_7 n_{1,7} - d_9^3 k_9 - 3d_9^2 \bar{k}_9 n_{1,9})
\end{aligned}$$

$$\begin{aligned}
b_{17} = & \frac{1}{24}((b_z^4 - 6b_z^2 + 1)k_1 d_1^4 - 4\bar{k}_1(-3n_{1,1}b_z^2 + (b_z^2 - 3)n_{3,1}b_z + n_{1,1})d_1^3 + d_1^4 k_{10} + d_{12}^4 k_{12} + d_{13}^4 k_{13} + d_{15}^4 k_{15} + \\
& d_{16}^4 k_{16} + d_{18}^4 k_{18} + b_z^4 d_{19}^4 k_{19} - 6b_z^2 d_{19}^4 k_{19} + d_{19}^4 k_{19} + b_z^4 d_2^4 k_2 + b_z^4 d_{20}^4 k_{20} + b_z^4 d_{21}^4 k_{21} - 6b_z^2 d_{21}^4 k_{21} + d_{21}^4 k_{21} + \\
& b_z^4 d_{22}^4 k_{22} - 6b_z^2 d_{22}^4 k_{22} + d_{22}^4 k_{22} + b_z^4 d_{23}^4 k_{23} + b_z^4 d_{24}^4 k_{24} - 6b_z^2 d_{24}^4 k_{24} + d_{24}^4 k_{24} + b_z^4 d_{25}^4 k_{25} - 6b_z^2 d_{25}^4 k_{25} + d_{25}^4 k_{25} + \\
& b_z^4 d_{26}^4 k_{26} + b_z^4 d_{27}^4 k_{27} - 6b_z^2 d_{27}^4 k_{27} + d_{27}^4 k_{27} + b_z^4 d_3^4 k_3 - 6b_z^2 d_3^4 k_3 + d_3^4 k_3 + b_z^4 d_4^4 k_4 - 6b_z^2 d_4^4 k_4 + d_4^4 k_4 + b_z^4 d_5^4 k_5 + \\
& b_z^4 d_6^4 k_6 - 6b_z^2 d_6^4 k_6 + d_6^4 k_6 + b_z^4 d_7^4 k_7 - 6b_z^2 d_7^4 k_7 + d_7^4 k_7 + b_z^4 d_8^4 k_8 + b_z^4 d_9^4 k_9 - 6b_z^2 d_9^4 k_9 + d_9^4 k_9 - 4d_{10}^3 \bar{k}_{10} n_{1,10} + \\
& 4d_{12}^3 \bar{k}_{12} n_{1,12} - 4d_{13}^3 \bar{k}_{13} n_{1,13} + 4d_{15}^3 \bar{k}_{15} n_{1,15} - 4d_{16}^3 \bar{k}_{16} n_{1,16} + 4d_{18}^3 \bar{k}_{18} n_{1,18} + 12b_z^2 d_{19}^3 \bar{k}_{19} n_{1,19} - 4d_{19}^3 \bar{k}_{19} n_{1,19} - \\
& 12b_z^2 d_{21}^3 \bar{k}_{21} n_{1,21} + 4d_{21}^3 \bar{k}_{21} n_{1,21} + 12b_z^2 d_{22}^3 \bar{k}_{22} n_{1,22} - 4d_{22}^3 \bar{k}_{22} n_{1,22} - 12b_z^2 d_{24}^3 \bar{k}_{24} n_{1,24} + 4d_{24}^3 \bar{k}_{24} n_{1,24} + 12b_z^2 d_{25}^3 \bar{k}_{25} n_{1,25} - \\
& 4d_{25}^3 \bar{k}_{25} n_{1,25} - 12b_z^2 d_{27}^3 \bar{k}_{27} n_{1,27} + 4d_{27}^3 \bar{k}_{27} n_{1,27} - 12b_z^2 d_3^3 \bar{k}_3 n_{1,3} + 4d_3^3 \bar{k}_3 n_{1,3} + 12b_z^2 d_4^3 \bar{k}_4 n_{1,4} - 4d_4^3 \bar{k}_4 n_{1,4} -
\end{aligned}$$

$$12b_z^2d_6^3\bar{k}_6n_{1,6} + 4d_6^3\bar{k}_6n_{1,6} + 12b_z^2d_7^3\bar{k}_7n_{1,7} - 4d_7^3\bar{k}_7n_{1,7} - 12b_z^2d_9^3\bar{k}_9n_{1,9} + 4d_9^3\bar{k}_9n_{1,9} + 4b_z^3d_{19}^3\bar{k}_{19}n_{3,19} - 12b_zd_{19}^3\bar{k}_{19}n_{3,19} - 4b_z^3d_2^3\bar{k}_2n_{3,2} + 4b_z^3d_{20}^3\bar{k}_{20}n_{3,20} + 4b_z^3d_{21}^3\bar{k}_{21}n_{3,21} - 12b_zd_{21}^3\bar{k}_{21}n_{3,21} + 4b_z^3d_{22}^3\bar{k}_{22}n_{3,22} - 12b_zd_{22}^3\bar{k}_{22}n_{3,22} + 4b_z^3d_{23}^3\bar{k}_{23}n_{3,23} + 4b_z^3d_{24}^3\bar{k}_{24}n_{3,24} - 12b_zd_{24}^3\bar{k}_{24}n_{3,24} + 4b_z^3d_{25}^3\bar{k}_{25}n_{3,25} - 12b_zd_{25}^3\bar{k}_{25}n_{3,25} + 4b_z^3d_{26}^3\bar{k}_{26}n_{3,26} + 4b_z^3d_{27}^3\bar{k}_{27}n_{3,27} - 12b_zd_{27}^3\bar{k}_{27}n_{3,27} - 4b_z^3d_3^3\bar{k}_3n_{3,3} + 12b_zd_3^3\bar{k}_3n_{3,3} - 4b_z^3d_4^3\bar{k}_4n_{3,4} + 12b_zd_4^3\bar{k}_4n_{3,4} - 4b_z^3d_5^3\bar{k}_5n_{3,5} - 4b_z^3d_6^3\bar{k}_6n_{3,6} + 12b_zd_6^3\bar{k}_6n_{3,6} - 4b_z^3d_7^3\bar{k}_7n_{3,7} + 12b_zd_7^3\bar{k}_7n_{3,7} - 4b_z^3d_8^3\bar{k}_8n_{3,8} - 4b_z^3d_9^3\bar{k}_9n_{3,9} + 12b_zd_9^3\bar{k}_9n_{3,9})$$

$$\begin{aligned}
b_{18} = & \frac{1}{6}(b_y(b_z^3(d_1^4k_1 - d_{19}^4k_{19} + d_2^4k_2 - d_{20}^4k_{20} - d_{21}^4k_{21} + d_{25}^4k_{25} + d_{26}^4k_{26} + d_{27}^4k_{27} + d_3^4k_3 - d_7^4k_7 - \\
& d_8^4k_8 - d_9^4k_9) - 3b_z^2(d_1^3\bar{k}_1n_{3,1} + d_{19}^3\bar{k}_{19}n_{3,19} + d_2^3\bar{k}_2n_{3,2} + d_{20}^3\bar{k}_{20}n_{3,20} + d_{21}^3\bar{k}_{21}n_{3,21} - d_{25}^3\bar{k}_{25}n_{3,25} - d_{26}^3\bar{k}_{26}n_{3,26} - \\
& d_{27}^3\bar{k}_{27}n_{3,27} + d_3^3\bar{k}_3n_{3,3} - d_7^3\bar{k}_7n_{3,7} - d_8^3\bar{k}_8n_{3,8} - d_9^3\bar{k}_9n_{3,9}) - 3b_z(d_1^4k_1 - 2d_1^3k_{11,1} - d_4^4k_{19} + 2d_{19}^3\bar{k}_{19}n_{1,19} - d_4^4k_{21} - \\
& 2d_3^3\bar{k}_{21}n_{1,21} + d_{25}^4k_{25} - 2d_{25}^3\bar{k}_{25}n_{1,25} + d_{27}^4k_{27} + 2d_{27}^3\bar{k}_{27}n_{1,27} + d_3^4k_3 + 2d_3^3\bar{k}_3n_{1,3} - d_4^4k_7 + 2d_7^3\bar{k}_7n_{1,7} - d_9^4k_9 - \\
& 2d_9^3\bar{k}_9n_{1,9}) + 3(d_1^3\bar{k}_1n_{3,1} + d_{10}^3\bar{k}_{10}n_{3,10} + d_{12}^3\bar{k}_{12}n_{3,12} - d_{16}^3\bar{k}_{16}n_{3,16} - d_{18}^3\bar{k}_{18}n_{3,18} + d_{19}^3\bar{k}_{19}n_{3,19} + d_{21}^3\bar{k}_{21}n_{3,21} - \\
& d_{25}^3\bar{k}_{25}n_{3,25} - d_{27}^3\bar{k}_{27}n_{3,27} + d_3^3\bar{k}_3n_{3,3} - d_7^3\bar{k}_7n_{3,7} - d_9^3\bar{k}_9n_{3,9})) + b_z(-(b_z^2 - 3)d_3^3\bar{k}_{11,1} + (b_z^2 - 3)d_{19}^3\bar{k}_{19}n_{2,19} - \\
& b_z^2d_3^2\bar{k}_{21}n_{2,2} + b_z^2d_{20}^3\bar{k}_{20}n_{2,20} + b_z^2d_{21}^3\bar{k}_{21}n_{2,21} + b_z^2d_{22}^3\bar{k}_{22}n_{2,22} + b_z^2d_{23}^3\bar{k}_{23}n_{2,23} + b_z^2d_{24}^3\bar{k}_{24}n_{2,24} + b_z^2d_{25}^3\bar{k}_{25}n_{2,25} + \\
& b_z^2d_{26}^3\bar{k}_{26}n_{2,26} + b_z^2d_{27}^3\bar{k}_{27}n_{2,27} - b_z^2d_3^2\bar{k}_3n_{2,3} - b_z^2d_4^2\bar{k}_4n_{2,4} - b_z^2d_5^2\bar{k}_5n_{2,5} - b_z^2d_6^2\bar{k}_6n_{2,6} - b_z^2d_7^2\bar{k}_7n_{2,7} - \\
& b_z^2d_8^2\bar{k}_8n_{2,8} - b_z^2d_9^2\bar{k}_9n_{2,9} - 3d_{21}^3\bar{k}_{21}n_{2,21} - 3d_{22}^3\bar{k}_{22}n_{2,22} - 3d_{24}^3\bar{k}_{24}n_{2,24} - 3d_{25}^3\bar{k}_{25}n_{2,25} - 3d_{27}^3\bar{k}_{27}n_{2,27} + 3d_3^3\bar{k}_3n_{2,3} + \\
& 3d_4^3\bar{k}_4n_{2,4} + 3d_6^3\bar{k}_6n_{2,6} + 3d_7^3\bar{k}_7n_{2,7} + 3d_9^3\bar{k}_9n_{2,9}))
\end{aligned}$$

$$\begin{aligned}
b_{19} = & \frac{1}{12}((3(b_z^2 - 1)b_y^2 - 3b_z^2 + 1)k_1d_4^4 + 2\bar{k}_1(-3b_zn_{3,1}b_y^2 - 3(b_z^2 - 1)n_{2,1}b_y + (3b_y^2 + 3b_z^2 - 2)n_{1,1} + \\
& 3b_zn_{3,1})d_1^3 + d_{10}^4(k_{10} - 3b_y^2k_{10}) - 3b_y^2d_{12}^4k_{12} + d_{12}^4k_{12} + d_{13}^4k_{13} + d_{15}^4k_{15} - 3b_y^2d_{16}^4k_{16} + d_{16}^4k_{16} - 3b_y^2d_{18}^4k_{18} + d_{18}^4k_{18} - \\
& 3b_y^2d_{19}^4k_{19} + 3b_y^2b_z^2d_{19}^4k_{19} - 3b_z^2d_{19}^4k_{19} + d_{19}^4k_{19} + 3b_y^2b_z^2d_2^4k_2 + 3b_y^2b_z^2d_2^4k_{20} - 3b_y^2d_{21}^4k_{21} + 3b_y^2b_z^2d_{21}^4k_{21} - \\
& 3b_z^2d_{21}^4k_{21} + d_{21}^4k_{21} - 3b_z^2d_{22}^4k_{22} + d_{22}^4k_{22} - 3b_z^2d_{24}^4k_{24} + d_{24}^4k_{24} - 3b_y^2d_{25}^4k_{25} + 3b_y^2b_z^2d_{25}^4k_{25} - 3b_z^2d_{25}^4k_{25} + \\
& d_{25}^4k_{25} + 3b_y^2b_z^2d_{26}^4k_{26} - 3b_y^2d_{27}^4k_{27} + 3b_y^2b_z^2d_{27}^4k_{27} - 3b_z^2d_{27}^4k_{27} + d_{27}^4k_{27} - 3b_y^2d_3^4k_3 + 3b_y^2b_z^2d_3^4k_3 - 3b_z^2d_3^4k_3 + \\
& d_3^4k_3 - 3b_z^2d_4^4k_4 + d_4^4k_4 - 3b_z^2d_6^4k_6 + d_6^4k_6 - 3b_y^2d_7^4k_7 + 3b_y^2b_z^2d_7^4k_7 - 3b_z^2d_7^4k_7 + d_7^4k_7 + 3b_y^2b_z^2d_8^4k_8 - 3b_y^2d_9^4k_9 + \\
& 3b_y^2b_z^2d_9^4k_9 - 3b_z^2d_9^4k_9 + d_9^4k_9 - 6b_y^2d_{12}^3\bar{k}_{12}n_{1,12} + 4d_{12}^3\bar{k}_{12}n_{1,12} - 4d_{13}^3\bar{k}_{13}n_{1,13} + 4d_{15}^3\bar{k}_{15}n_{1,15} + 6b_y^2d_{16}^3\bar{k}_{16}n_{1,16} - \\
& 4d_{16}^3\bar{k}_{16}n_{1,16} - 6b_y^2d_{18}^3\bar{k}_{18}n_{1,18} + 4d_{18}^3\bar{k}_{18}n_{1,18} + 6b_y^2d_{19}^3\bar{k}_{19}n_{1,19} + 6b_z^2d_{19}^3\bar{k}_{19}n_{1,19} - 4d_{19}^3\bar{k}_{19}n_{1,19} - 6b_y^2d_{21}^3\bar{k}_{21}n_{1,21} - \\
& 6b_z^2d_{21}^3\bar{k}_{21}n_{1,21} + 4d_{21}^3\bar{k}_{21}n_{1,21} + 6b_z^2d_{22}^3\bar{k}_{22}n_{1,22} - 4d_{22}^3\bar{k}_{22}n_{1,22} - 6b_z^2d_{24}^3\bar{k}_{24}n_{1,24} + 4d_{24}^3\bar{k}_{24}n_{1,24} + 6b_y^2d_{25}^3\bar{k}_{25}n_{1,25} + \\
& 6b_z^2d_{25}^3\bar{k}_{25}n_{1,25} - 4d_{25}^3\bar{k}_{25}n_{1,25} - 6b_y^2d_{27}^3\bar{k}_{27}n_{1,27} - 6b_z^2d_{27}^3\bar{k}_{27}n_{1,27} + 4d_{27}^3\bar{k}_{27}n_{1,27} - 6b_y^2d_3^3\bar{k}_3n_{1,3} - 6b_z^2d_3^3\bar{k}_3n_{1,3} + \\
& 4d_3^3\bar{k}_3n_{1,3} + 6b_z^2d_4^3\bar{k}_4n_{1,4} - 4d_4^3\bar{k}_4n_{1,4} - 6b_z^2d_6^3\bar{k}_6n_{1,6} + 4d_6^3\bar{k}_6n_{1,6} + 6b_y^2d_7^3\bar{k}_7n_{1,7} + 6b_z^2d_7^3\bar{k}_7n_{1,7} - 4d_7^3\bar{k}_7n_{1,7} - \\
& 6b_y^2d_9^3\bar{k}_9n_{1,9} - 6b_z^2d_9^3\bar{k}_9n_{1,9} + 4d_9^3\bar{k}_9n_{1,9} + 2d_{10}^3\bar{k}_{10}((3b_y^2 - 2)n_{1,10} + 3b_y^2n_{2,10}) + 6b_yd_{12}^3\bar{k}_{12}n_{2,12} - 6b_yd_{16}^3\bar{k}_{16}n_{2,16} - \\
& 6b_yd_{18}^3\bar{k}_{18}n_{2,18} - 6b_yb_z^2d_{19}^3\bar{k}_{19}n_{2,19} + 6b_yd_{19}^3\bar{k}_{19}n_{2,19} - 6b_yb_z^2d_{20}^3\bar{k}_{20}n_{2,20} - 6b_yb_z^2d_{21}^3\bar{k}_{21}n_{2,21} + \\
& 6b_yd_{21}^3\bar{k}_{21}n_{2,21} + 6b_yb_z^2d_{25}^3\bar{k}_{25}n_{2,25} - 6b_yd_{25}^3\bar{k}_{25}n_{2,25} + 6b_yb_z^2d_{26}^3\bar{k}_{26}n_{2,26} + 6b_yb_z^2d_{27}^3\bar{k}_{27}n_{2,27} - 6b_yd_{27}^3\bar{k}_{27}n_{2,27} - \\
& 6b_yb_z^2d_3^3\bar{k}_3n_{2,3} + 6b_yd_3^3\bar{k}_3n_{2,3} + 6b_yb_z^2d_7^3\bar{k}_7n_{2,7} - 6b_yd_7^3\bar{k}_7n_{2,7} + 6b_yb_z^2d_8^3\bar{k}_8n_{2,8} + 6b_yb_z^2d_9^3\bar{k}_9n_{2,9} - 6b_yd_9^3\bar{k}_9n_{2,9} + \\
& 6b_y^2b_zd_{19}^3\bar{k}_{19}n_{3,19} - 6b_zd_{19}^3\bar{k}_{19}n_{3,19} - 6b_y^2b_zd_2^3\bar{k}_2n_{3,2} + 6b_y^2b_zd_{20}^3\bar{k}_{20}n_{3,20} + 6b_y^2b_zd_{21}^3\bar{k}_{21}n_{3,21} - 6b_zd_{21}^3\bar{k}_{21}n_{3,21} - \\
& 6b_zd_{22}^3\bar{k}_{22}n_{3,22} - 6b_zd_{24}^3\bar{k}_{24}n_{3,24} + 6b_y^2b_zd_{25}^3\bar{k}_{25}n_{3,25} - 6b_zd_{25}^3\bar{k}_{25}n_{3,25} + 6b_y^2b_zd_{26}^3\bar{k}_{26}n_{3,26} + 6b_y^2b_zd_{27}^3\bar{k}_{27}n_{3,27} - \\
& 6b_zd_{27}^3\bar{k}_{27}n_{3,27} - 6b_y^2b_zd_3^3\bar{k}_3n_{3,3} + 6b_zd_3^3\bar{k}_3n_{3,3} + 6b_zd_4^3\bar{k}_4n_{3,4} + 6b_zd_6^3\bar{k}_6n_{3,6} - 6b_y^2b_zd_7^3\bar{k}_7n_{3,7} + 6b_zd_7^3\bar{k}_7n_{3,7} - \\
& 6b_y^2b_zd_8^3\bar{k}_8n_{3,8} - 6b_y^2b_zd_9^3\bar{k}_9n_{3,9} + 6b_zd_9^3\bar{k}_9n_{3,9})
\end{aligned}$$

$$b_{20} = \frac{1}{6}(b_y^3(b_z(d_1^4k_1 - d_{19}^4k_{19} + d_2^4k_2 - d_{20}^4k_{20} - d_{21}^4k_{21} + d_{25}^4k_{25} + d_{26}^4k_{26} + d_{27}^4k_{27} + d_3^4k_3 - d_7^4k_7 - d_8^4k_8 - d_9^4k_9) + d_1^3(-\bar{k}_1)n_{3,1} - d_{10}^3\bar{k}_{10}n_{3,10} - d_{11}^3\bar{k}_{11}n_{3,11} - d_{12}^3\bar{k}_{12}n_{3,12} + d_{16}^3\bar{k}_{16}n_{3,16} + d_{17}^3\bar{k}_{17}n_{3,17} + d_{18}^3\bar{k}_{18}n_{3,18} - d_{19}^3\bar{k}_{19}n_{3,19} - d_3^3\bar{k}_2n_{3,2} - d_2^3\bar{k}_2n_{3,20} - d_{21}^3\bar{k}_{21}n_{3,21} + d_{25}^3\bar{k}_{25}n_{3,25} + d_{26}^3\bar{k}_{26}n_{3,26} + d_{27}^3\bar{k}_{27}n_{3,27} - d_3^3\bar{k}_3n_{3,3} + d_3^3\bar{k}_7n_{3,7} + d_3^3\bar{k}_8n_{3,8} + d_9^3\bar{k}_9n_{3,9}) - 3b_y^2b_z(d_1^3\bar{k}_1n_{2,1} - d_{19}^3\bar{k}_{19}n_{2,19} + d_3^3\bar{k}_2n_{2,2} - d_{20}^3\bar{k}_{20}n_{2,20} - d_{21}^3\bar{k}_{21}n_{2,21} - d_{25}^3\bar{k}_{25}n_{2,25} - d_{26}^3\bar{k}_{26}n_{2,26} - d_{27}^3\bar{k}_{27}n_{2,27} + d_3^3\bar{k}_3n_{2,3} + d_3^3\bar{k}_7n_{2,7} + d_8^3\bar{k}_8n_{2,8} + d_9^3\bar{k}_9n_{2,9}) - 3b_y(b_z(d_1^4k_1 - 2d_1^3\bar{k}_1n_{1,1} - d_4^4k_7 - 2d_{19}^3\bar{k}_{19}n_{1,19} -$$

$$d_{21}^4 k_{21} - 2 d_{21}^3 \bar{k}_{21} n_{1,21} + d_{25}^4 k_{25} - 2 d_{25}^3 \bar{k}_{25} n_{1,25} + d_{27}^4 k_{27} + 2 d_{27}^3 \bar{k}_{27} n_{1,27} + d_3^4 k_3 + 2 d_3^3 \bar{k}_3 n_{1,3} - d_7^4 k_7 + 2 d_7^3 \bar{k}_7 n_{1,7} - d_9^4 k_9 - 2 d_9^3 \bar{k}_9 n_{1,9}) + d_1^3 (-\bar{k}_1) n_{3,1} - d_{10}^3 \bar{k}_{10} n_{3,10} - d_{12}^3 \bar{k}_{12} n_{3,12} + d_{16}^3 \bar{k}_{16} n_{3,16} + d_{18}^3 \bar{k}_{18} n_{3,18} - d_{19}^3 \bar{k}_{19} n_{3,19} - d_{21}^3 \bar{k}_{21} n_{3,21} + d_{25}^3 \bar{k}_{25} n_{3,25} + d_{27}^3 \bar{k}_{27} n_{3,27} - d_3^3 \bar{k}_3 n_{3,3} + d_7^3 \bar{k}_7 n_{3,7} + d_9^3 \bar{k}_9 n_{3,9}) + 3 b_z (d_1^3 \bar{k}_1 n_{2,1} - d_{19}^3 \bar{k}_{19} n_{2,19} - d_{21}^3 \bar{k}_{21} n_{2,21} - d_{22}^3 \bar{k}_{22} n_{2,22} - d_{24}^3 \bar{k}_{24} n_{2,24} - d_{25}^3 \bar{k}_{25} n_{2,25} - d_{27}^3 \bar{k}_{27} n_{2,27} + d_3^3 \bar{k}_3 n_{2,3} + d_4^3 \bar{k}_4 n_{2,4} + d_6^3 \bar{k}_6 n_{2,6} + d_7^3 \bar{k}_7 n_{2,7} + d_9^3 \bar{k}_9 n_{2,9}))$$

$$b_{21} = \frac{1}{24} ((b_y^4 - 6b_y^2 + 1) k_1 d_1^4 - 4\bar{k}_1 (-3n_{1,1} b_y^2 + (b_y^2 - 3)n_{2,1} b_y + n_{1,1}) d_1^3 + (b_y^4 - 6b_y^2 + 1) d_{10}^4 k_{10} + b_y^4 d_{11}^4 k_{11} + b_y^4 d_{12}^4 k_{12} - 6b_y^2 d_{12}^4 k_{12} + d_{12}^4 k_{12} + d_{13}^4 k_{13} + d_{15}^4 k_{15} + b_y^4 d_{16}^4 k_{16} - 6b_y^2 d_{16}^4 k_{16} + d_{16}^4 k_{16} + b_y^4 d_{17}^4 k_{17} + b_y^4 d_{18}^4 k_{18} - 6b_y^2 d_{18}^4 k_{18} + d_{18}^4 k_{18} + b_y^4 d_{19}^4 k_{19} - 6b_y^2 d_{19}^4 k_{19} + d_{19}^4 k_{19} + b_y^4 d_2^4 k_2 + b_y^4 d_{20}^4 k_{20} + b_y^4 d_{21}^4 k_{21} - 6b_y^2 d_{21}^4 k_{21} + d_{21}^4 k_{21} + d_{22}^4 k_{22} + d_{24}^4 k_{24} + b_y^4 d_{25}^4 k_{25} - 6b_y^2 d_{25}^4 k_{25} + d_{25}^4 k_{25} + b_y^4 d_{26}^4 k_{26} + b_y^4 d_{27}^4 k_{27} - 6b_y^2 d_{27}^4 k_{27} + d_{27}^4 k_{27} + b_y^4 d_3^4 k_3 - 6b_y^2 d_3^4 k_3 + d_3^4 k_3 + d_4^4 k_4 + d_6^4 k_6 + b_y^4 d_7^4 k_7 - 6b_y^2 d_7^4 k_7 + d_7^4 k_7 + b_y^4 d_8^4 k_8 + b_y^4 d_9^4 k_9 - 6b_y^2 d_9^4 k_9 + d_9^4 k_9 - 12b_y^2 d_{12}^3 \bar{k}_{12} n_{1,12} + 4d_{12}^3 \bar{k}_{12} n_{1,12} - 4d_{13}^3 \bar{k}_{13} n_{1,13} + 4d_{15}^3 \bar{k}_{15} n_{1,15} + 12b_y^2 d_{16}^3 \bar{k}_{16} n_{1,16} - 4d_{16}^3 \bar{k}_{16} n_{1,16} - 12b_y^2 d_{18}^3 \bar{k}_{18} n_{1,18} + 4d_{18}^3 \bar{k}_{18} n_{1,18} + 12b_y^2 d_{19}^3 \bar{k}_{19} n_{1,19} - 4d_{19}^3 \bar{k}_{19} n_{1,19} - 12b_y^2 d_{21}^3 \bar{k}_{21} n_{1,21} + 4d_{21}^3 \bar{k}_{21} n_{1,21} - 4d_{22}^3 \bar{k}_{22} n_{1,22} + 4d_{24}^3 \bar{k}_{24} n_{1,24} + 12b_y^2 d_{25}^3 \bar{k}_{25} n_{1,25} - 4d_{25}^3 \bar{k}_{25} n_{1,25} - 12b_y^2 d_{27}^3 \bar{k}_{27} n_{1,27} + 4d_{27}^3 \bar{k}_{27} n_{1,27} - 12b_y^2 d_3^3 \bar{k}_3 n_{1,3} + 4d_3^3 \bar{k}_3 n_{1,3} - 4d_4^3 \bar{k}_4 n_{1,4} + 4d_6^3 \bar{k}_6 n_{1,6} + 12b_y^2 d_7^3 \bar{k}_7 n_{1,7} - 4d_7^3 \bar{k}_7 n_{1,7} - 12b_y^2 d_9^3 \bar{k}_9 n_{1,9} + 4d_9^3 \bar{k}_9 n_{1,9} - 4d_{10}^3 \bar{k}_{10} (-3n_{1,10} b_y^2 + (b_y^2 - 3)n_{2,10} b_y + n_{1,10}) - 4b_y^3 d_{11}^3 \bar{k}_{11} n_{2,11} - 4b_y^3 d_{12}^3 \bar{k}_{12} n_{2,12} + 12b_y d_{12}^3 \bar{k}_{12} n_{2,12} + 4b_y^3 d_{16}^3 \bar{k}_{16} n_{2,16} - 12b_y d_{16}^3 \bar{k}_{16} n_{2,16} + 4b_y^3 d_{17}^3 \bar{k}_{17} n_{2,17} + 4b_y^3 d_{18}^3 \bar{k}_{18} n_{2,18} - 12b_y d_{18}^3 \bar{k}_{18} n_{2,18} - 4b_y^3 d_{19}^3 \bar{k}_{19} n_{2,19} + 12b_y d_{19}^3 \bar{k}_{19} n_{2,19} - 4b_y^3 d_2^3 \bar{k}_2 n_{2,2} - 4b_y^3 d_{20}^3 \bar{k}_{20} n_{2,20} - 4b_y^3 d_{21}^3 \bar{k}_{21} n_{2,21} + 12b_y d_{21}^3 \bar{k}_{21} n_{2,21} + 4b_y^3 d_{25}^3 \bar{k}_{25} n_{2,25} - 12b_y d_{25}^3 \bar{k}_{25} n_{2,25} + 4b_y^3 d_{26}^3 \bar{k}_{26} n_{2,26} + 4b_y^3 d_{27}^3 \bar{k}_{27} n_{2,27} - 12b_y d_{27}^3 \bar{k}_{27} n_{2,27} - 4b_y^3 d_3^3 \bar{k}_3 n_{2,3} + 12b_y d_3^3 \bar{k}_3 n_{2,3} + 4b_y^3 d_7^3 \bar{k}_7 n_{2,7} - 12b_y d_7^3 \bar{k}_7 n_{2,7} + 4b_y^3 d_8^3 \bar{k}_8 n_{2,8} + 4b_y^3 d_9^3 \bar{k}_9 n_{2,9} - 12b_y d_9^3 \bar{k}_9 n_{2,9})$$

$$b_{22} = \frac{1}{6} (b_z^3 (d_1^4 k_1 - d_1^3 \bar{k}_1 n_{1,1} - d_{19}^4 k_{19} + d_{19}^3 \bar{k}_{19} n_{1,19} - d_2^3 \bar{k}_2 n_{1,2} + d_{20}^3 \bar{k}_{20} n_{1,20} + d_{21}^4 k_{21} + d_{21}^3 \bar{k}_{21} n_{1,21} - d_{22}^4 k_{22} + d_{22}^3 \bar{k}_{22} n_{1,22} + d_{23}^3 \bar{k}_{23} n_{1,23} + d_{24}^4 k_{24} + d_{24}^3 \bar{k}_{24} n_{1,24} - d_{25}^4 k_{25} + d_{25}^3 \bar{k}_{25} n_{1,25} + d_{26}^3 \bar{k}_{26} n_{1,26} + d_{27}^4 k_{27} + d_{27}^3 \bar{k}_{27} n_{1,27} - d_3^4 k_3 - d_3^3 \bar{k}_3 n_{1,3} + d_4^4 k_4 - d_4^3 \bar{k}_4 n_{1,4} - d_5^3 \bar{k}_5 n_{1,5} - d_6^4 k_6 - d_6^3 \bar{k}_6 n_{1,6} + d_7^4 k_7 - d_7^3 \bar{k}_7 n_{1,7} - d_8^3 \bar{k}_8 n_{1,8} - d_9^4 k_9 - d_9^3 \bar{k}_9 n_{1,9}) - 3b_z^2 (d_3^3 \bar{k}_3 n_{1,1} + d_{19}^3 \bar{k}_{19} n_{1,19} - d_{21}^3 \bar{k}_{21} n_{1,21} + d_{22}^3 \bar{k}_{22} n_{1,22} - d_{24}^3 \bar{k}_{24} n_{1,24} + d_{25}^3 \bar{k}_{25} n_{1,25} - d_{27}^3 \bar{k}_{27} n_{1,27} - d_3^3 \bar{k}_3 n_{1,3} + d_4^3 \bar{k}_4 n_{1,4} - d_5^3 \bar{k}_5 n_{1,5} + d_6^3 \bar{k}_6 n_{1,6} - d_7^3 \bar{k}_7 n_{1,7} + d_9^3 \bar{k}_9 n_{1,9}) + b_z (d_1^4 (-k_1) + 3d_3^3 \bar{k}_3 n_{1,1} + d_{19}^4 k_{19} - 3d_{19}^3 \bar{k}_{19} n_{1,19} - d_4^4 k_4 n_{1,21} - 3d_{21}^3 \bar{k}_{21} n_{1,21} + d_{22}^4 k_{22} - 3d_{22}^3 \bar{k}_{22} n_{1,22} - d_{24}^4 k_{24} - 3d_{24}^3 \bar{k}_{24} n_{1,24} + d_{25}^4 k_{25} - 3d_{25}^3 \bar{k}_{25} n_{1,25} - d_{27}^4 k_{27} - 3d_{27}^3 \bar{k}_{27} n_{1,27} + d_3^4 k_3 + 3d_3^3 \bar{k}_3 n_{1,3} - d_4^4 k_4 + 3d_4^3 \bar{k}_4 n_{1,4} + d_6^4 k_6 + 3d_6^3 \bar{k}_6 n_{1,6} - d_7^4 k_7 + 3d_7^3 \bar{k}_7 n_{1,7} + d_9^4 k_9 + 3d_9^3 \bar{k}_9 n_{1,9}) + d_1^3 \bar{k}_1 n_{3,1} + d_{10}^4 \bar{k}_{10} n_{3,10} - d_{12}^3 \bar{k}_{12} n_{3,12} + d_{13}^3 \bar{k}_{13} n_{3,13} - d_{15}^3 \bar{k}_{15} n_{3,15} + d_{16}^3 \bar{k}_{16} n_{3,16} - d_3^3 \bar{k}_3 n_{3,18} + d_{19}^3 \bar{k}_{19} n_{3,19} - d_{21}^3 \bar{k}_{21} n_{3,21} + d_{22}^3 \bar{k}_{22} n_{3,22} - d_{24}^3 \bar{k}_{24} n_{3,24} + d_{25}^3 \bar{k}_{25} n_{3,25} - d_{27}^3 \bar{k}_{27} n_{3,27} - d_3^3 \bar{k}_3 n_{3,3} + d_4^3 \bar{k}_4 n_{3,4} - d_6^3 \bar{k}_6 n_{3,6} + d_7^3 \bar{k}_7 n_{3,7} - d_9^3 \bar{k}_9 n_{3,9})$$

$$b_{23} = \frac{1}{6} (b_y ((3b_z^2 - 1) d_1^4 k_1 - 3d_1^3 \bar{k}_1 ((b_z^2 - 1) n_{1,1} + 2b_z n_{3,1}) + 3b_z^2 d_{19}^4 k_{19} - 3b_z^2 d_{19}^3 \bar{k}_{19} n_{1,19} - 3b_z^2 d_2^3 \bar{k}_2 n_{1,2} - 3b_z^2 d_{20}^3 \bar{k}_{20} n_{1,20} - 3b_z^2 d_{21}^4 k_{21} - 3b_z^2 d_{21}^3 \bar{k}_{21} n_{1,21} - 3b_z^2 d_{25}^4 k_{25} + 3b_z^2 d_{25}^3 \bar{k}_{25} n_{1,25} + 3b_z^2 d_{26}^3 \bar{k}_{26} n_{1,26} + 3b_z^2 d_{27}^4 k_{27} + 3b_z^2 d_{27}^3 \bar{k}_{27} n_{1,27} - 3b_z^2 d_3^4 k_3 - 3b_z^2 d_3^3 \bar{k}_3 n_{1,3} - 3b_z^2 d_5^3 \bar{k}_5 n_{1,5} - 3b_z^2 d_7^4 k_7 + 3b_z^2 d_7^3 \bar{k}_7 n_{1,7} + 3b_z^2 d_8^3 \bar{k}_8 n_{1,8} + 3b_z^2 d_9^4 k_9 + 3b_z^2 d_9^3 \bar{k}_9 n_{1,9} + 6b_z d_{19}^3 \bar{k}_{19} n_{1,19} - 6b_z d_{21}^3 \bar{k}_{21} n_{1,21} - 6b_z d_{25}^3 \bar{k}_{25} n_{1,25} + 6b_z d_{27}^3 \bar{k}_{27} n_{1,27} + 6b_z d_3^3 \bar{k}_3 n_{1,3} + 6b_z d_7^3 \bar{k}_7 n_{1,7} - 6b_z d_9^3 \bar{k}_9 n_{1,9} - d_{10}^4 k_{10} + 3d_{10}^3 \bar{k}_{10} n_{1,10} + d_{12}^4 k_{12} + 3d_{12}^3 \bar{k}_{12} n_{1,12} + d_{16}^4 k_{16} - 3d_{16}^3 \bar{k}_{16} n_{1,16} - d_{18}^4 k_{18} - 3d_{18}^3 \bar{k}_{18} n_{1,18} - d_{19}^4 k_{19} + 3d_{19}^3 \bar{k}_{19} n_{1,19} + d_{21}^4 k_{21} + 3d_{21}^3 \bar{k}_{21} n_{1,21} + d_{25}^4 k_{25} - 3d_{25}^3 \bar{k}_{25} n_{1,25} - d_{27}^4 k_{27} - 3d_{27}^3 \bar{k}_{27} n_{1,27} + d_3^4 k_3 + 3d_3^3 \bar{k}_3 n_{1,3} + d_7^4 k_7 - 3d_7^3 \bar{k}_7 n_{1,7} - d_9^4 k_9 - 3d_9^3 \bar{k}_9 n_{1,9}) + (1 - 3b_z^2) d_3^3 \bar{k}_3 n_{1,1} - 3b_z^2 d_{19}^3 \bar{k}_{19} n_{1,19} + 3b_z^2 d_{21}^3 \bar{k}_{21} n_{1,21} - 3b_z^2 d_{22}^3 \bar{k}_{22} n_{1,22} + 3b_z^2 d_{24}^3 \bar{k}_{24} n_{1,24} - 3b_z^2 d_{25}^3 \bar{k}_{25} n_{1,25} + 3b_z^2 d_{27}^3 \bar{k}_{27} n_{1,27} + 3b_z^2 d_3^3 \bar{k}_3 n_{1,3} - 3b_z^2 d_4^3 \bar{k}_4 n_{1,4} + 3b_z^2 d_6^3 \bar{k}_6 n_{1,6} - 3b_z^2 d_7^3 \bar{k}_7 n_{1,7} + 3b_z^2 d_9^3 \bar{k}_9 n_{1,9}) + d_1^3 \bar{k}_1 n_{3,1} + d_{19}^4 k_{19} - 3b_y^2 d_2^3 \bar{k}_2 n_{1,2} + 3b_y^2 d_{20}^3 \bar{k}_{20} n_{1,20} + 3b_y^2 d_{21}^4 k_{21} + 3b_y^2 d_{21}^3 \bar{k}_{21} n_{1,21} - 3b_y^2 d_{25}^4 k_{25} + 3b_y^2 d_{25}^3 \bar{k}_{25} n_{1,25} +$$

$$b_{24} = \frac{1}{6} (b_z ((3b_y^2 - 1) d_1^4 k_1 - 3d_1^3 \bar{k}_1 ((b_y^2 - 1) n_{1,1} + 2b_y n_{2,1}) + d_{19}^4 (k_{19} - 3b_y^2 k_{19}) + 3d_{19}^3 \bar{k}_{19} ((b_y^2 - 1) n_{1,19} + 2b_y n_{2,19}) - 3b_y^2 d_2^3 \bar{k}_2 n_{1,2} + 3b_y^2 d_{20}^3 \bar{k}_{20} n_{1,20} + 3b_y^2 d_{21}^4 k_{21} + 3b_y^2 d_{21}^3 \bar{k}_{21} n_{1,21} - 3b_y^2 d_{25}^4 k_{25} + 3b_y^2 d_{25}^3 \bar{k}_{25} n_{1,25} +$$

$$\begin{aligned}
& 3b_y^2 d_{26}^3 \bar{k}_{26} n_{1,26} + 3b_y^2 d_{27}^4 k_{27} + 3b_y^2 d_{27}^3 \bar{k}_{27} n_{1,27} - 3b_y^2 d_3^4 k_3 - 3b_y^2 d_3^3 \bar{k}_3 n_{1,3} + 3b_y^2 d_7^4 k_7 - 3b_y^2 d_7^3 \bar{k}_7 n_{1,7} - \\
& 3b_y^2 d_8^3 \bar{k}_8 n_{1,8} - 3b_y^2 d_9^4 k_9 - 3b_y^2 d_9^3 \bar{k}_9 n_{1,9} - 6b_y d_{21}^3 \bar{k}_{21} n_{2,21} - 6b_y d_{25}^3 \bar{k}_{25} n_{2,25} + 6b_y d_{27}^3 \bar{k}_{27} n_{2,27} + 6b_y d_3^3 \bar{k}_3 n_{2,3} + \\
& 6b_y d_7^3 \bar{k}_7 n_{2,7} - 6b_y d_9^3 \bar{k}_9 n_{2,9} - d_{21}^4 k_{21} - 3d_{21}^3 \bar{k}_{21} n_{1,21} + d_{22}^4 k_{22} - 3d_{22}^3 \bar{k}_{22} n_{1,22} - d_{24}^4 k_{24} - 3d_{24}^3 \bar{k}_{24} n_{1,24} + d_{25}^4 k_{25} - \\
& 3d_{25}^3 \bar{k}_{25} n_{1,25} - d_{27}^4 k_{27} - 3d_{27}^3 \bar{k}_{27} n_{1,27} + d_3^4 k_3 + 3d_3^3 \bar{k}_3 n_{1,3} - d_4^4 k_4 + 3d_4^3 \bar{k}_4 n_{1,4} + d_6^4 k_6 + 3d_6^3 \bar{k}_6 n_{1,6} - d_7^4 k_7 + \\
& 3d_7^3 \bar{k}_7 n_{1,7} + d_9^4 k_9 + 3d_9^3 \bar{k}_9 n_{1,9}) + (1 - 3b_y^2) d_1^3 \bar{k}_1 n_{3,1} - 3b_y^2 d_{10}^3 \bar{k}_{10} n_{3,10} + 3b_y^2 d_{12}^3 \bar{k}_{12} n_{3,12} - 3b_y^2 d_{16}^3 \bar{k}_{16} n_{3,16} + \\
& 3b_y^2 d_{18}^3 \bar{k}_{18} n_{3,18} - 3b_y^2 d_{19}^3 \bar{k}_{19} n_{3,19} + 3b_y^2 d_{21}^3 \bar{k}_{21} n_{3,21} - 3b_y^2 d_{25}^3 \bar{k}_{25} n_{3,25} + 3b_y^2 d_{27}^3 \bar{k}_{27} n_{3,27} + 3b_y^2 d_3^3 \bar{k}_3 n_{3,3} - \\
& 3b_y^2 d_7^3 \bar{k}_7 n_{3,7} + 3b_y^2 d_9^3 \bar{k}_9 n_{3,9} + d_{10}^3 \bar{k}_{10} n_{3,10} - d_{12}^3 \bar{k}_{12} n_{3,12} + d_{13}^3 \bar{k}_{13} n_{3,13} - d_{15}^3 \bar{k}_{15} n_{3,15} + d_{16}^3 \bar{k}_{16} n_{3,16} - d_{18}^3 \bar{k}_{18} n_{3,18} + \\
& d_{19}^3 \bar{k}_{19} n_{3,19} - d_{21}^3 \bar{k}_{21} n_{3,21} + d_{22}^3 \bar{k}_{22} n_{3,22} - d_{24}^3 \bar{k}_{24} n_{3,24} + d_{25}^3 \bar{k}_{25} n_{3,25} - d_{27}^3 \bar{k}_{27} n_{3,27} - d_3^3 \bar{k}_3 n_{3,3} + d_4^3 \bar{k}_4 n_{3,4} - d_6^3 \bar{k}_6 n_{3,6} + \\
& d_7^3 \bar{k}_7 n_{3,7} - d_9^3 \bar{k}_9 n_{3,9}
\end{aligned}$$

$$\begin{aligned}
b_{25} = & \frac{1}{6} (b_y^3 (d_1^4 k_1 - d_1^3 \bar{k}_1 n_{1,1} + d_{10}^4 k_{10} - d_{10}^3 \bar{k}_{10} n_{1,10} - d_{11}^3 \bar{k}_{11} n_{1,11} - d_{12}^4 k_{12} - d_{12}^3 \bar{k}_{12} n_{1,12} - d_{16}^4 k_{16} + d_{16}^3 \bar{k}_{16} n_{1,16} + \\
& d_{17}^3 \bar{k}_{17} n_{1,17} + d_{18}^4 k_{18} + d_{18}^3 \bar{k}_{18} n_{1,18} + d_{19}^4 k_{19} - d_{19}^3 \bar{k}_{19} n_{1,19} - d_{20}^3 \bar{k}_{20} n_{1,20} - d_{21}^4 k_{21} - d_{21}^3 \bar{k}_{21} n_{1,21} - d_{25}^4 k_{25} + \\
& d_{25}^3 \bar{k}_{25} n_{1,25} + d_{26}^3 \bar{k}_{26} n_{1,26} + d_{27}^4 k_{27} + d_{27}^3 \bar{k}_{27} n_{1,27} - d_3^4 k_3 - d_3^3 \bar{k}_3 n_{1,3} - d_7^4 k_7 + d_7^3 \bar{k}_7 n_{1,7} + d_8^3 \bar{k}_8 n_{1,8} + d_9^4 k_9 + d_9^3 \bar{k}_9 n_{1,9}) - \\
& 3b_y^2 (d_1^3 \bar{k}_1 n_{2,1} + d_{10}^3 \bar{k}_{10} n_{2,10} - d_{12}^3 \bar{k}_{12} n_{2,12} + d_{16}^3 \bar{k}_{16} n_{2,16} - d_{18}^3 \bar{k}_{18} n_{2,18} + d_{19}^3 \bar{k}_{19} n_{2,19} - d_{21}^3 \bar{k}_{21} n_{2,21} + d_{25}^3 \bar{k}_{25} n_{2,25} - \\
& d_{27}^3 \bar{k}_{27} n_{2,27} - d_3^3 \bar{k}_3 n_{2,3} + d_9^3 \bar{k}_9 n_{2,7} - d_9^3 \bar{k}_9 n_{2,9}) + b_y (d_1^4 (-k_1) + 3d_1^3 \bar{k}_1 n_{1,1} - d_{10}^4 k_{10} + 3d_{10}^3 \bar{k}_{10} n_{1,10} + d_{12}^4 k_{12} + \\
& 3d_{12}^3 \bar{k}_{12} n_{1,12} + d_{16}^4 k_{16} - 3d_{16}^3 \bar{k}_{16} n_{1,16} - d_{18}^4 k_{18} - 3d_{18}^3 \bar{k}_{18} n_{1,18} - d_{19}^4 k_{19} + 3d_{19}^3 \bar{k}_{19} n_{1,19} + d_{21}^4 k_{21} + 3d_{21}^3 \bar{k}_{21} n_{1,21} + \\
& d_{25}^4 k_{25} - 3d_{25}^3 \bar{k}_{25} n_{1,25} - d_{27}^4 k_{27} - 3d_{27}^3 \bar{k}_{27} n_{1,27} + d_3^4 k_3 + 3d_3^3 \bar{k}_3 n_{1,3} + d_7^4 k_7 - 3d_7^3 \bar{k}_7 n_{1,7} - d_9^4 k_9 - 3d_9^3 \bar{k}_9 n_{1,9}) + d_1^3 \bar{k}_1 n_{2,1} + \\
& d_{10}^3 \bar{k}_{10} n_{2,10} - d_{12}^3 \bar{k}_{12} n_{2,12} + d_{13}^3 \bar{k}_{13} n_{2,13} - d_{15}^3 \bar{k}_{15} n_{2,15} + d_{16}^3 \bar{k}_{16} n_{2,16} - d_{18}^3 \bar{k}_{18} n_{2,18} + d_{19}^3 \bar{k}_{19} n_{2,19} - d_{21}^3 \bar{k}_{21} n_{2,21} + \\
& d_{22}^3 \bar{k}_{22} n_{2,22} - d_{24}^3 \bar{k}_{24} n_{2,24} + d_{25}^3 \bar{k}_{25} n_{2,25} - d_{27}^3 \bar{k}_{27} n_{2,27} - d_3^3 \bar{k}_3 n_{2,3} + d_4^3 \bar{k}_4 n_{2,4} - d_6^3 \bar{k}_6 n_{2,6} + d_7^3 \bar{k}_7 n_{2,7} - d_9^3 \bar{k}_9 n_{2,9})
\end{aligned}$$

$$\begin{aligned}
b_{26} = & \frac{1}{120} (b_z^5 (d_1^5 (-k_1) + d_{19}^5 k_{19} - d_2^5 k_2 + d_{20}^5 k_{20} + d_{21}^5 k_{21} + d_{22}^5 k_{22} + d_{23}^5 k_{23} + d_{24}^5 k_{24} + d_{25}^5 k_{25} + d_{26}^5 k_{26} + \\
& d_{27}^5 k_{27} - d_3^5 k_3 - d_4^5 k_4 - d_5^5 k_5 - d_6^5 k_6 - d_7^5 k_7 - d_8^5 k_8 - d_9^5 k_9) + 5b_z^4 (d_1^4 \bar{k}_1 n_{3,1} + d_{19}^4 \bar{k}_{19} n_{3,19} + d_2^4 \bar{k}_2 n_{3,2} + d_{20}^4 \bar{k}_{20} n_{3,20} + \\
& d_{21}^4 \bar{k}_{21} n_{3,21} + d_{22}^4 \bar{k}_{22} n_{3,22} + d_{23}^4 \bar{k}_{23} n_{3,23} + d_{24}^4 \bar{k}_{24} n_{3,24} + d_{25}^4 \bar{k}_{25} n_{3,25} + d_{26}^4 \bar{k}_{26} n_{3,26} + d_{27}^4 \bar{k}_{27} n_{3,27} + d_3^4 \bar{k}_3 n_{3,3} + d_4^4 \bar{k}_4 n_{3,4} + \\
& d_5^4 \bar{k}_5 n_{3,5} + d_6^4 \bar{k}_6 n_{3,6} + d_7^4 \bar{k}_7 n_{3,7} + d_8^4 \bar{k}_8 n_{3,8} + d_9^4 \bar{k}_9 n_{3,9}) + 10b_z^3 (d_1^5 k_1 - 2d_1^4 \bar{k}_1 n_{1,1} - d_{19}^5 k_{19} + 2d_{19}^4 \bar{k}_{19} n_{1,19} - d_{21}^5 k_{21} - \\
& 2d_{21}^4 \bar{k}_{21} n_{1,21} - d_{22}^5 k_{22} + 2d_{22}^4 \bar{k}_{22} n_{1,22} - d_{24}^5 k_{24} - 2d_{24}^4 \bar{k}_{24} n_{1,24} - d_{25}^5 k_{25} + 2d_{25}^4 \bar{k}_{25} n_{1,25} - d_{27}^5 k_{27} - 2d_{27}^4 \bar{k}_{27} n_{1,27} + \\
& d_3^5 k_3 + 2d_3^4 \bar{k}_3 n_{1,3} + d_4^5 k_4 - 2d_4^4 \bar{k}_4 n_{1,4} + d_6^5 k_6 + 2d_6^4 \bar{k}_6 n_{1,6} + d_7^5 k_7 - 2d_7^4 \bar{k}_7 n_{1,7} + d_9^5 k_9 + 2d_9^4 \bar{k}_9 n_{1,9}) - 30b_z^2 (d_1^4 \bar{k}_1 n_{3,1} + \\
& d_{19}^4 \bar{k}_{19} n_{3,19} + d_{21}^4 \bar{k}_{21} n_{3,21} + d_{22}^4 \bar{k}_{22} n_{3,22} + d_{24}^4 \bar{k}_{24} n_{3,24} + d_{25}^4 \bar{k}_{25} n_{3,25} + d_{27}^4 \bar{k}_{27} n_{3,27} + d_3^4 \bar{k}_3 n_{3,3} + d_4^4 \bar{k}_4 n_{3,4} + d_6^4 \bar{k}_6 n_{3,6} + \\
& d_7^4 \bar{k}_7 n_{3,7} + d_9^4 \bar{k}_9 n_{3,9}) - 5b_z (d_1^5 k_1 - 4d_1^4 \bar{k}_1 n_{1,1} - d_{19}^5 k_{19} + 4d_{19}^4 \bar{k}_{19} n_{1,19} - d_{21}^5 k_{21} - 4d_{21}^4 \bar{k}_{21} n_{1,21} - d_{22}^5 k_{22} + 4d_{22}^4 \bar{k}_{22} n_{1,22} - \\
& d_{24}^5 k_{24} - 4d_{24}^4 \bar{k}_{24} n_{1,24} - d_{25}^5 k_{25} + 4d_{25}^4 \bar{k}_{25} n_{1,25} - d_{27}^5 k_{27} - 4d_{27}^4 \bar{k}_{27} n_{1,27} + d_3^5 k_3 + 4d_3^4 \bar{k}_3 n_{1,3} + d_4^5 k_4 - 4d_4^4 \bar{k}_4 n_{1,4} + \\
& d_6^5 k_6 + 4d_6^4 \bar{k}_6 n_{1,6} + d_7^5 k_7 - 4d_7^4 \bar{k}_7 n_{1,7} + d_9^5 k_9 + 4d_9^4 \bar{k}_9 n_{1,9}) + 5(d_1^4 \bar{k}_1 n_{3,1} + d_{10}^4 \bar{k}_{10} n_{3,10} + d_{12}^4 \bar{k}_{12} n_{3,12} + d_{13}^4 \bar{k}_{13} n_{3,13} + \\
& d_{15}^4 \bar{k}_{15} n_{3,15} + d_{16}^4 \bar{k}_{16} n_{3,16} + d_{18}^4 \bar{k}_{18} n_{3,18} + d_{19}^4 \bar{k}_{19} n_{3,19} + d_{21}^4 \bar{k}_{21} n_{3,21} + d_{22}^4 \bar{k}_{22} n_{3,22} + d_{24}^4 \bar{k}_{24} n_{3,24} + d_{25}^4 \bar{k}_{25} n_{3,25} + \\
& d_{27}^4 \bar{k}_{27} n_{3,27} + d_3^4 \bar{k}_3 n_{3,3} + d_4^4 \bar{k}_4 n_{3,4} + d_6^4 \bar{k}_6 n_{3,6} + d_7^4 \bar{k}_7 n_{3,7} + d_9^4 \bar{k}_9 n_{3,9}))
\end{aligned}$$

$$\begin{aligned}
b_{27} = & \frac{1}{24} (-b_y b_z^4 d_2^5 k_2 - b_y b_z^4 d_{20}^5 k_{20} + b_y b_z^4 d_{26}^5 k_{26} + b_y b_z^4 d_8^5 k_8 + b_z^3 d_2^4 \bar{k}_2 (4b_y n_{3,2} + b_z n_{2,2}) + b_z^3 d_{20}^4 \bar{k}_{20} (b_z n_{2,20} - \\
& 4b_y n_{3,20}) + b_z^3 d_{26}^4 \bar{k}_{26} (4b_y n_{3,26} + b_z n_{2,26}) + b_z^3 d_8^4 \bar{k}_8 (b_z n_{2,8} - 4b_y n_{3,8}) - b_y (b_z^4 - 6b_z^2 + 1) d_1^5 k_1 + d_1^4 \bar{k}_1 (4b_y (-3b_z^2 n_{1,1} + \\
& (b_z^2 - 3) b_z n_{3,1} + n_{1,1}) + (b_z^4 - 6b_z^2 + 1) n_{2,1}) - b_y (b_z^4 - 6b_z^2 + 1) d_{19}^5 k_{19} + d_{19}^4 \bar{k}_{19} ((b_z^4 - 6b_z^2 + 1) n_{2,19} - \\
& 4b_y ((3b_z^2 - 1) n_{1,19} + b_z (b_z^2 - 3) n_{3,19})) - b_y (b_z^4 - 6b_z^2 + 1) d_{21}^5 k_{21} + d_{21}^4 \bar{k}_{21} ((b_z^4 - 6b_z^2 + 1) n_{2,21} - 4b_y (-3b_z^2 n_{1,21} + \\
& (b_z^2 - 3) b_z n_{3,21} + n_{1,21})) + b_y (b_z^4 - 6b_z^2 + 1) d_{25}^5 k_{25} + d_{25}^4 \bar{k}_{25} (4b_y ((3b_z^2 - 1) n_{1,25} + b_z (b_z^2 - 3) n_{3,25}) + (b_z^4 - \\
& 6b_z^2 + 1) n_{2,25}) + b_y (b_z^4 - 6b_z^2 + 1) d_{27}^5 k_{27} + d_{27}^4 \bar{k}_{27} (4b_y (-3b_z^2 n_{1,27} + (b_z^2 - 3) b_z n_{3,27} + n_{1,27})) + (b_z^4 - 6b_z^2 + \\
& 1) n_{2,27}) - b_y (b_z^4 - 6b_z^2 + 1) d_3^5 k_3 + d_3^4 \bar{k}_3 (4b_y ((3b_z^2 - 1) n_{1,3} + b_z (b_z^2 - 3) n_{3,3}) + (b_z^4 - 6b_z^2 + 1) n_{2,3}) + b_y (b_z^4 - \\
& 6b_z^2 + 1) d_7^5 k_7 + d_7^4 \bar{k}_7 ((b_z^4 - 6b_z^2 + 1) n_{2,7} - 4b_y (-3b_z^2 n_{1,7} + (b_z^2 - 3) b_z n_{3,7} + n_{1,7})) + b_y (b_z^4 - 6b_z^2 + 1) d_9^5 k_9 + \\
& d_9^4 \bar{k}_9 ((b_z^4 - 6b_z^2 + 1) n_{2,9} - 4b_y ((3b_z^2 - 1) n_{1,9} + b_z (b_z^2 - 3) n_{3,9})) - b_y d_{10}^5 k_{10} + d_{10}^4 \bar{k}_{10} (4b_y n_{1,10} + n_{2,10}) - \\
& b_y d_{12}^5 k_{12} + d_{12}^4 \bar{k}_{12} (n_{2,12} - 4b_y n_{1,12}) + b_y d_{16}^5 k_{16} + d_{16}^4 \bar{k}_{16} (n_{2,16} - 4b_y n_{1,16}) + b_y d_{18}^5 k_{18} + d_{18}^4 \bar{k}_{18} (4b_y n_{1,18} + n_{2,18}) + \\
& b_z^4 d_{23}^4 \bar{k}_{23} n_{2,23} + b_z^4 d_5^4 \bar{k}_5 n_{2,5} + (b_z^4 - 6b_z^2 + 1) d_{22}^4 \bar{k}_{22} n_{2,22} + (b_z^4 - 6b_z^2 + 1) d_{24}^4 \bar{k}_{24} n_{2,24} + (b_z^4 - 6b_z^2 + 1) d_4^4 \bar{k}_4 n_{2,4} +
\end{aligned}$$

$$(b_z^4 - 6b_z^2 + 1)d_6^4 \bar{k}_6 n_{2,6} + d_{13}^4 \bar{k}_{13} n_{2,13} + d_{15}^4 \bar{k}_{15} n_{2,15})$$

$$\begin{aligned} b_{28} = & \frac{1}{12}((1 - 3b_y^2)\bar{k}_1 n_{3,1} d_1^4 + b_z^3((k_1 - b_y^2 k_1) d_1^5 - 2\bar{k}_1(n_{1,1} - b_y n_{2,1}) d_1^4 + (b_y^2 - 1) d_{19}^5 k_{19} - b_y^2 d_2^5 k_2 + b_y^2 d_{20}^5 k_{20} + b_y^2 d_{21}^5 k_{21} - d_{21}^5 k_{21} - d_{22}^5 k_{22} - d_{24}^5 k_{24} + b_y^2 d_{25}^5 k_{25} - d_{25}^5 k_{25} + b_y^2 d_{26}^5 k_{26} + b_y^2 d_{27}^5 k_{27} - d_{27}^5 k_{27} - b_y^2 d_{28}^5 k_3 + d_3^5 k_3 + d_4^5 k_4 + d_6^5 k_6 - b_y^2 d_7^5 k_7 + d_7^5 k_7 - b_y^2 d_8^5 k_8 - b_y^2 d_9^5 k_9 + d_9^5 k_9 - 2d_{21}^4 \bar{k}_{21} n_{1,21} + 2d_{22}^4 \bar{k}_{22} n_{1,22} - 2d_{24}^4 \bar{k}_{24} n_{1,24} + 2d_{25}^4 \bar{k}_{25} n_{1,25} - 2d_{27}^4 \bar{k}_{27} n_{1,27} + 2d_3^4 \bar{k}_{3n1,3} - 2d_4^4 \bar{k}_{4n1,4} + 2d_6^4 \bar{k}_{6n1,6} - 2d_7^4 \bar{k}_{7n1,7} + 2d_9^4 \bar{k}_{9n1,9} + 2d_{19}^4 \bar{k}_{19}(n_{1,19} - b_y n_{2,19}) + 2b_y d_2^4 \bar{k}_{2n2,2} - 2b_y d_{20}^4 \bar{k}_{20n2,20} - 2b_y d_{21}^4 \bar{k}_{21n2,21} + 2b_y d_{25}^4 \bar{k}_{25n2,25} + 2b_y d_{26}^4 \bar{k}_{26n2,26} + 2b_y d_{27}^4 \bar{k}_{27n2,27} + 2b_y d_3^4 \bar{k}_{3n2,3} - 2b_y d_7^4 \bar{k}_{7n2,7} - 2b_y d_8^4 \bar{k}_{8n2,8} - 2b_y d_9^4 \bar{k}_{9n2,9}) + b_z((3b_y^2 - 1)k_1 d_1^5 - 2\bar{k}_1(3b_y^2 - 2)n_{1,1} + 3b_y n_{2,1}) d_1^4 + d_{19}^5(k_{19} - 3b_y^2 k_{19}) - 3b_y^2 d_{21}^5 k_{21} + d_{21}^5 k_{22} + d_{24}^5 k_{24} - 3b_y^2 d_{25}^5 k_{25} + d_{25}^5 k_{25} - 3b_y^2 d_{27}^5 k_{27} + d_{27}^5 k_{27} + 3b_y^2 d_3^5 k_3 - d_3^5 k_3 - d_4^5 k_4 - d_6^5 k_6 + 3b_y^2 d_7^5 k_7 - d_7^5 k_7 + 3b_y^2 d_9^5 k_9 - d_9^5 k_9 - 6b_y^2 d_{21}^4 \bar{k}_{21} n_{1,21} + 4d_{21}^4 \bar{k}_{21} n_{1,21} - 4d_{22}^4 \bar{k}_{22} n_{1,22} + 4d_{24}^4 \bar{k}_{24} n_{1,24} + 6b_y^2 d_{25}^4 \bar{k}_{25} n_{1,25} - 4d_{25}^4 \bar{k}_{25} n_{1,25} - 6b_y^2 d_{27}^4 \bar{k}_{27} n_{1,27} + 4d_{27}^4 \bar{k}_{27} n_{1,27} + 6b_y^2 d_3^4 \bar{k}_{3n1,3} - 4d_3^4 \bar{k}_{3n1,3} + 4d_4^4 \bar{k}_{4n1,4} - 4d_6^4 \bar{k}_{6n1,6} - 6b_y^2 d_7^4 \bar{k}_{7n1,7} + 4d_7^4 \bar{k}_{7n1,7} + 6b_y^2 d_9^4 \bar{k}_{9n1,9} - 4d_9^4 \bar{k}_{9n1,9} + 2d_{19}^4 \bar{k}_{19}(3n_{1,19}b_y^2 + 3n_{2,19}b_y - 2n_{1,19}) + 6b_y d_2^4 \bar{k}_{21} n_{2,21} - 6b_y d_{25}^4 \bar{k}_{25} n_{2,25} - 6b_y d_{27}^4 \bar{k}_{27} n_{2,27} - 6b_y d_3^4 \bar{k}_{3n2,3} + 6b_y d_7^4 \bar{k}_{7n2,7} + 6b_y d_9^4 \bar{k}_{9n2,9}) - 3b_y^2 d_{10}^4 \bar{k}_{10} n_{3,10} + d_{10}^4 \bar{k}_{10} n_{3,10} - 3b_y^2 d_{12}^4 \bar{k}_{12} n_{3,12} + d_{12}^4 \bar{k}_{12} n_{3,12} + d_{13}^4 \bar{k}_{13} n_{3,13} + d_{15}^4 \bar{k}_{15} n_{3,15} - 3b_y^2 d_{16}^4 \bar{k}_{16} n_{3,16} + d_{16}^4 \bar{k}_{16} n_{3,16} - 3b_y^2 d_{18}^4 \bar{k}_{18} n_{3,18} + d_{18}^4 \bar{k}_{18} n_{3,18} - 3b_y^2 d_{19}^4 \bar{k}_{19} n_{3,19} + d_{19}^4 \bar{k}_{19} n_{3,19} - 3b_y^2 d_{21}^4 \bar{k}_{21} n_{3,21} + d_{21}^4 \bar{k}_{21} n_{3,21} + d_{22}^4 \bar{k}_{22} n_{3,22} + d_{24}^4 \bar{k}_{24} n_{3,24} - 3b_y^2 d_{25}^4 \bar{k}_{25} n_{3,25} + d_{25}^4 \bar{k}_{25} n_{3,25} - 3b_y^2 d_{27}^4 \bar{k}_{27} n_{3,27} + d_{27}^4 \bar{k}_{27} n_{3,27} - 3b_y^2 d_3^4 \bar{k}_{3n3,3} + d_3^4 \bar{k}_{3n3,3} + d_4^4 \bar{k}_{4n3,4} + d_6^4 \bar{k}_{6n3,6} - 3b_y^2 d_7^4 \bar{k}_{7n3,7} + d_7^4 \bar{k}_{7n3,7} - 3b_y^2 d_9^4 \bar{k}_{9n3,9} + d_9^4 \bar{k}_{9n3,9} + 3b_z^2((b_y^2 - 1)\bar{k}_1 n_{3,1} d_1^4 + (b_y^2 - 1)d_{19}^4 \bar{k}_{19} n_{3,19} + b_y^2 d_2^4 \bar{k}_{2n3,2} + b_y^2 d_{20}^4 \bar{k}_{20n3,20} + b_y^2 d_{21}^4 \bar{k}_{21n3,21} - d_{21}^4 \bar{k}_{21} n_{3,21} - d_{22}^4 \bar{k}_{22} n_{3,22} - d_{24}^4 \bar{k}_{24} n_{3,24} + b_y^2 d_{25}^4 \bar{k}_{25} n_{3,25} - d_{25}^4 \bar{k}_{25} n_{3,25} + b_y^2 d_{26}^4 \bar{k}_{26} n_{3,26} + b_y^2 d_{27}^4 \bar{k}_{27} n_{3,27} - d_{27}^4 \bar{k}_{27} n_{3,27} + b_y^2 d_3^4 \bar{k}_{3n3,3} - d_3^4 \bar{k}_{3n3,3} - d_4^4 \bar{k}_{4n3,4} - d_6^4 \bar{k}_{6n3,6} + b_y^2 d_7^4 \bar{k}_{7n3,7} - d_7^4 \bar{k}_{7n3,7} + b_y^2 d_8^4 \bar{k}_{8n3,8} + b_y^2 d_9^4 \bar{k}_{9n3,9} - d_9^4 \bar{k}_{9n3,9})) \end{aligned}$$

$$\begin{aligned} b_{29} = & \frac{1}{12}((1 - 3b_z^2)\bar{k}_1 n_{2,1} d_1^4 + d_{10}^4 \bar{k}_{10} n_{2,10} + d_{12}^4 \bar{k}_{12} n_{2,12} + d_{13}^4 \bar{k}_{13} n_{2,13} + d_{15}^4 \bar{k}_{15} n_{2,15} + d_{16}^4 \bar{k}_{16} n_{2,16} + d_{18}^4 \bar{k}_{18} n_{2,18} - 3b_z^2 d_{19}^4 \bar{k}_{19} n_{2,19} + d_{19}^4 \bar{k}_{19} n_{2,19} - 3b_z^2 d_{21}^4 \bar{k}_{21} n_{2,21} + d_{21}^4 \bar{k}_{21} n_{2,21} - 3b_z^2 d_{22}^4 \bar{k}_{22} n_{2,22} + d_{22}^4 \bar{k}_{22} n_{2,22} - 3b_z^2 d_{24}^4 \bar{k}_{24} n_{2,24} + d_{24}^4 \bar{k}_{24} n_{2,24} - 3b_z^2 d_{25}^4 \bar{k}_{25} n_{2,25} + d_{25}^4 \bar{k}_{25} n_{2,25} - 3b_z^2 d_{27}^4 \bar{k}_{27} n_{2,27} + d_{27}^4 \bar{k}_{27} n_{2,27} - 3b_z^2 d_3^4 \bar{k}_{3n2,3} + d_3^4 \bar{k}_{3n2,3} - 3b_z^2 d_4^4 \bar{k}_{4n2,4} + d_4^4 \bar{k}_{4n2,4} - 3b_z^2 d_6^4 \bar{k}_{6n2,6} + d_6^4 \bar{k}_{6n2,6} - 3b_z^2 d_7^4 \bar{k}_{7n2,7} + d_7^4 \bar{k}_{7n2,7} - 3b_z^2 d_9^4 \bar{k}_{9n2,9} + d_9^4 \bar{k}_{9n2,9} + 3b_y^2((b_z^2 - 1)\bar{k}_1 n_{2,1} d_1^4 - d_{10}^4 \bar{k}_{10} n_{2,10} - d_{12}^4 \bar{k}_{12} n_{2,12} - d_{16}^4 \bar{k}_{16} n_{2,16} - d_{18}^4 \bar{k}_{18} n_{2,18} + b_z^2 d_{19}^4 \bar{k}_{19} n_{2,19} - d_{19}^4 \bar{k}_{19} n_{2,19} + b_z^2 d_2^4 \bar{k}_{2n2,2} + b_z^2 d_{20}^4 \bar{k}_{20n2,20} + b_z^2 d_{21}^4 \bar{k}_{21n2,21} - d_{21}^4 \bar{k}_{21} n_{2,21} + b_z^2 d_{25}^4 \bar{k}_{25n2,25} - d_{25}^4 \bar{k}_{25} n_{2,25} + b_z^2 d_{26}^4 \bar{k}_{26n2,26} + b_z^2 d_{27}^4 \bar{k}_{27n2,27} - d_{27}^4 \bar{k}_{27} n_{2,27} + b_z^2 d_3^4 \bar{k}_{3n2,3} - d_3^4 \bar{k}_{3n2,3} + b_z^2 d_7^4 \bar{k}_{7n2,7} - d_7^4 \bar{k}_{7n2,7} + b_z^2 d_8^4 \bar{k}_{8n2,8} + b_z^2 d_9^4 \bar{k}_{9n2,9} - d_9^4 \bar{k}_{9n2,9}) + b_y^3((k_1 - b_z^2 k_1) d_1^5 - 2\bar{k}_1(n_{1,1} - b_z n_{3,1}) d_1^4 + d_{10}^5 k_{10} + d_{12}^5 k_{12} - d_{16}^5 k_{16} - d_{18}^5 k_{18} - b_z^2 d_{19}^5 k_{19} + d_{19}^5 k_{19} - b_z^2 d_2^5 k_2 - b_z^2 d_{20}^5 k_{20} - b_z^2 d_{21}^5 k_{21} + d_{21}^5 k_{21} + b_z^2 d_{25}^5 k_{25} - d_{25}^5 k_{25} + b_z^2 d_{26}^5 k_{26} + b_z^2 d_{27}^5 k_{27} - d_{27}^5 k_{27} - b_z^2 d_3^5 k_3 + d_3^5 k_3 + b_z^2 d_7^5 k_7 - d_7^5 k_7 + b_z^2 d_8^5 k_8 + b_z^2 d_9^5 k_9 - d_9^5 k_9 - 2d_{10}^4 \bar{k}_{10} n_{1,10} + 2d_{12}^4 \bar{k}_{12} n_{1,12} + 2d_{16}^4 \bar{k}_{16} n_{1,16} - 2d_{18}^4 \bar{k}_{18} n_{1,18} - 2d_{19}^4 \bar{k}_{19} n_{1,19} + 2d_{21}^4 \bar{k}_{21} n_{1,21} + 2d_{25}^4 \bar{k}_{25} n_{1,25} - 2d_{27}^4 \bar{k}_{27} n_{1,27} + 2d_3^4 \bar{k}_{3n1,3} + 2d_7^4 \bar{k}_{7n1,7} - 2d_9^4 \bar{k}_{9n1,9} - 2b_z d_{19}^4 \bar{k}_{19} n_{3,19} + 2b_z d_2^4 \bar{k}_{2n3,2} - 2b_z d_{20}^4 \bar{k}_{20n3,20} - 2b_z d_{21}^4 \bar{k}_{21n3,21} + 2b_z d_{25}^4 \bar{k}_{25n3,25} + 2b_z d_{26}^4 \bar{k}_{26n3,26} + 2b_z d_{27}^4 \bar{k}_{27n3,27} + 2b_z d_3^4 \bar{k}_{3n3,3} - 2b_z d_7^4 \bar{k}_{7n3,7} - 2b_z d_8^4 \bar{k}_{8n3,8} - 2b_z d_9^4 \bar{k}_{9n3,9}) + b_y((3b_z^2 - 1)k_1 d_1^5 - 2\bar{k}_1(3n_{1,1} b_z^2 + 3n_{3,1} b_z - 2n_{1,1}) d_1^4 - d_{10}^5 k_{10} - d_{12}^5 k_{12} + d_{16}^5 k_{16} + d_{18}^5 k_{18} + 3b_z^2 d_{19}^5 k_{19} - d_{19}^5 k_{19} + 3b_z^2 d_{21}^5 k_{21} - d_{21}^5 k_{21} - 3b_z^2 d_{25}^5 k_{25} + d_{25}^5 k_{25} - 3b_z^2 d_{27}^5 k_{27} + d_{27}^5 k_{27} + 3b_z^2 d_3^5 k_3 - d_3^5 k_3 - 3b_z^2 d_7^5 k_7 + d_7^5 k_7 - 3b_z^2 d_9^5 k_9 + d_9^5 k_9 + 4d_{10}^4 \bar{k}_{10} n_{1,10} - 4d_{12}^4 \bar{k}_{12} n_{1,12} - 4d_{16}^4 \bar{k}_{16} n_{1,16} + 4d_{18}^4 \bar{k}_{18} n_{1,18} - 6b_z^2 d_{19}^4 \bar{k}_{19} n_{1,19} + 4d_{19}^4 \bar{k}_{19} n_{1,19} + 6b_z^2 d_{21}^4 \bar{k}_{21} n_{1,21} - 4d_{21}^4 \bar{k}_{21} n_{1,21} + 6b_z^2 d_{25}^4 \bar{k}_{25} n_{1,25} - 4d_{25}^4 \bar{k}_{25} n_{1,25} - 6b_z^2 d_{27}^4 \bar{k}_{27} n_{1,27} + 4d_{27}^4 \bar{k}_{27} n_{1,27} + 6b_z^2 d_3^4 \bar{k}_{3n1,3} - 4d_3^4 \bar{k}_{3n1,3} + 6b_z^2 d_7^4 \bar{k}_{7n1,7} - 4d_7^4 \bar{k}_{7n1,7} - 6b_z^2 d_9^4 \bar{k}_{9n1,9} + 4d_9^4 \bar{k}_{9n1,9} + 6b_z d_{19}^4 \bar{k}_{19} n_{3,19} + 6b_z d_{21}^4 \bar{k}_{21} n_{3,21} - 6b_z d_{25}^4 \bar{k}_{25} n_{3,25} - 6b_z d_7^4 \bar{k}_{7n3,7} + 6b_z d_9^4 \bar{k}_{9n3,9})) \end{aligned}$$

$$\begin{aligned} b_{30} = & \frac{1}{24}(-b_y^4 b_z d_2^5 k_2 + b_y^4 b_z d_{20}^5 k_{20} + b_y^4 b_z d_{26}^5 k_{26} - b_y^4 b_z d_8^5 k_8 + b_y^4 d_{11}^4 \bar{k}_{11} n_{3,11} + b_y^4 d_{17}^4 \bar{k}_{17} n_{3,17} + b_y^3 d_2^4 \bar{k}_2 (b_y n_{3,2} + 4b_z n_{2,2}) + b_y^3 d_{20}^4 \bar{k}_{20} (b_y n_{3,20} - 4b_z n_{2,20}) + b_y^3 d_{26}^4 \bar{k}_{26} (b_y n_{3,26} + 4b_z n_{2,26}) + b_y^3 d_8^4 \bar{k}_8 (b_y n_{3,8} - 4b_z n_{2,8}) - (b_y^4 - 6b_y^2 + 1)b_z d_1^5 k_1 + d_1^4 \bar{k}_1 (4b_z (-3b_y^2 n_{1,1} + (b_y^2 - 3)b_y n_{2,1} + n_{1,1}) + (b_y^4 - 6b_y^2 + 1)n_{3,1}) + (b_y^4 - 6b_y^2 + 1)b_z d_{19}^5 k_{19} + \dots) \end{aligned}$$

$$\begin{aligned}
& d_{19}^4 \bar{k}_{19}((b_y^4 - 6b_y^2 + 1)n_{3,19} - 4b_z(-3b_y^2 n_{1,19} + (b_y^2 - 3)b_y n_{2,19} + n_{1,19})) + (b_y^4 - 6b_y^2 + 1)b_z d_{21}^5 k_{21} + d_{21}^4 \bar{k}_{21}((b_y^4 - 6b_y^2 + 1)n_{3,21} - 4b_z((3b_y^2 - 1)n_{1,21} + b_y(b_y^2 - 3)n_{2,21})) + (b_y^4 - 6b_y^2 + 1)b_z d_{25}^5 k_{25} + d_{25}^4 \bar{k}_{25}(4b_z((3b_y^2 - 1)n_{1,25} + b_y(b_y^2 - 3)n_{2,25}) + (b_y^4 - 6b_y^2 + 1)n_{3,25}) + (b_y^4 - 6b_y^2 + 1)b_z d_{27}^5 k_{27} + d_{27}^4 \bar{k}_{27}(4b_z(-3b_y^2 n_{1,27} + (b_y^2 - 3)b_y n_{2,27} + n_{1,27}) + (b_y^4 - 6b_y^2 + 1)n_{3,27}) - (b_y^4 - 6b_y^2 + 1)b_z d_3^5 k_3 + d_3^4 \bar{k}_3(4b_z((3b_y^2 - 1)n_{1,3} + b_y(b_y^2 - 3)n_{2,3}) + (b_y^4 - 6b_y^2 + 1)n_{3,3}) - (b_y^4 - 6b_y^2 + 1)b_z d_7^5 k_7 + d_7^4 \bar{k}_7((b_y^4 - 6b_y^2 + 1)n_{3,7} - 4b_z((3b_y^2 - 1)n_{1,7} + b_y(b_y^2 - 3)n_{2,7})) - (b_y^4 - 6b_y^2 + 1)b_z d_9^5 k_9 + d_9^4 \bar{k}_9((b_y^4 - 6b_y^2 + 1)n_{3,9} - 4b_z(-3b_y^2 n_{1,9} + (b_y^2 - 3)b_y n_{2,9} + n_{1,9})) + (b_y^4 - 6b_y^2 + 1)d_{10}^4 \bar{k}_{10}n_{3,10} + (b_y^4 - 6b_y^2 + 1)d_{12}^4 \bar{k}_{12}n_{3,12} + (b_y^4 - 6b_y^2 + 1)d_{16}^4 \bar{k}_{16}n_{3,16} + (b_y^4 - 6b_y^2 + 1)d_{18}^4 \bar{k}_{18}n_{3,18} + b_z d_{22}^5 k_{22} + d_{22}^4 \bar{k}_{22}(n_{3,22} - 4b_z n_{1,22}) + b_z d_{24}^5 k_{24} + d_{24}^4 \bar{k}_{24}(4b_z n_{1,24} + n_{3,24}) - b_z d_4^5 k_4 + d_4^4 \bar{k}_4(4b_z n_{1,4} + n_{3,4}) - b_z d_6^5 k_6 + d_6^4 \bar{k}_6(n_{3,6} - 4b_z n_{1,6}) + d_{13}^4 \bar{k}_{13}n_{3,13} + d_{15}^4 \bar{k}_{15}n_{3,15})
\end{aligned}$$

$$\begin{aligned}
b_{31} = & \frac{1}{120}(b_y^5(d_1^5(-k_1) - d_{10}^5 k_{10} - d_{11}^5 k_{11} - d_{12}^5 k_{12} + d_{16}^5 k_{16} + d_{17}^5 k_{17} - d_{18}^5 k_{18} - d_{19}^5 k_{19} - d_2^5 k_2 - d_{20}^5 k_{20} - d_{21}^5 k_{21} + d_{25}^5 k_{25} + d_{26}^5 k_{26} + d_{27}^5 k_{27} - d_3^5 k_3 + d_7^5 k_7 + d_8^5 k_8 + d_9^5 k_9) + 5b_y^4(d_1^4 \bar{k}_{11}n_{2,1} + d_{10}^4 \bar{k}_{10}n_{2,10} + d_{11}^4 \bar{k}_{11}n_{2,11} + d_{12}^4 \bar{k}_{12}n_{2,12} + d_{16}^4 \bar{k}_{16}n_{2,16} + d_{17}^4 \bar{k}_{17}n_{2,17} + d_{18}^4 \bar{k}_{18}n_{2,18} + d_{19}^4 \bar{k}_{19}n_{2,19} + d_2^4 \bar{k}_{22}n_{2,2} + d_{20}^4 \bar{k}_{20}n_{2,20} + d_{21}^4 \bar{k}_{21}n_{2,21} + d_{25}^4 \bar{k}_{25}n_{2,25} + d_{26}^4 \bar{k}_{26}n_{2,26} + d_{27}^4 \bar{k}_{27}n_{2,27} + d_3^4 \bar{k}_{3}n_{2,3} + d_7^4 \bar{k}_{7}n_{2,7} + d_8^4 \bar{k}_{8}n_{2,8} + d_9^4 \bar{k}_{9}n_{2,9}) + 10b_y^3(d_1^5 k_1 - 2d_1^4 \bar{k}_{1}n_{1,1} + d_{10}^5 k_{10} - 2d_{10}^4 \bar{k}_{10}n_{1,10} + d_{12}^4 \bar{k}_{12}k_{12} + 2d_{12}^4 \bar{k}_{12}n_{1,12} - d_{16}^5 k_{16} + 2d_{16}^4 \bar{k}_{16}n_{1,16} - d_{18}^5 k_{18} - 2d_{18}^4 \bar{k}_{18}n_{1,18} + d_{19}^5 k_{19} - 2d_{19}^4 \bar{k}_{19}n_{1,19} + d_{21}^5 k_{21} + 2d_{21}^4 \bar{k}_{21}n_{1,21} - d_{25}^5 k_{25} + 2d_{25}^4 \bar{k}_{25}n_{1,25} - d_{27}^5 k_{27} - 2d_{27}^4 \bar{k}_{27}n_{1,27} + d_3^5 k_3 + 2d_3^4 \bar{k}_{3}n_{1,3} - d_7^5 k_7 + 2d_7^4 \bar{k}_{7}n_{1,7} - d_9^5 k_9 - 2d_9^4 \bar{k}_{9}n_{1,9}) - 30b_y^2(d_1^4 \bar{k}_{11}n_{2,1} + d_{10}^4 \bar{k}_{10}n_{2,10} + d_{12}^4 \bar{k}_{12}n_{2,12} + d_{16}^4 \bar{k}_{16}n_{2,16} + d_{18}^4 \bar{k}_{18}n_{2,18} + d_{19}^4 \bar{k}_{19}n_{2,19} + d_{21}^4 \bar{k}_{21}n_{2,21} + d_{25}^4 \bar{k}_{25}n_{2,25} + d_{27}^4 \bar{k}_{27}n_{2,27} + d_3^4 \bar{k}_{3}n_{2,3} + d_7^4 \bar{k}_{7}n_{2,7} + d_9^4 \bar{k}_{9}n_{2,9}) - 5b_y(d_1^5 k_1 - 4d_1^4 \bar{k}_{1}n_{1,1} + d_{10}^5 k_{10} - 4d_{10}^4 \bar{k}_{10}n_{1,10} + d_{12}^5 k_{12} + 4d_{12}^4 \bar{k}_{12}n_{1,12} - d_{16}^5 k_{16} + 4d_{16}^4 \bar{k}_{16}n_{1,16} - d_{18}^5 k_{18} - 4d_{18}^4 \bar{k}_{18}n_{1,18} + d_{19}^5 k_{19} - 4d_{19}^4 \bar{k}_{19}n_{1,19} + d_{21}^5 k_{21} + 4d_{21}^4 \bar{k}_{21}n_{1,21} - d_{25}^5 k_{25} + 4d_{25}^4 \bar{k}_{25}n_{1,25} - d_{27}^5 k_{27} - 4d_{27}^4 \bar{k}_{27}n_{1,27} + d_3^5 k_3 + 4d_3^4 \bar{k}_{3}n_{1,3} - d_7^5 k_7 + 4d_7^4 \bar{k}_{7}n_{1,7} - d_9^5 k_9 - 4d_9^4 \bar{k}_{9}n_{1,9}) + 5(d_1^4 \bar{k}_{1}n_{2,1} + d_{10}^4 \bar{k}_{10}n_{2,10} + d_{12}^4 \bar{k}_{12}n_{2,12} + d_{13}^4 \bar{k}_{13}n_{2,13} + d_{15}^4 \bar{k}_{15}n_{2,15} + d_{16}^4 \bar{k}_{16}n_{2,16} + d_{18}^4 \bar{k}_{18}n_{2,18} + d_{19}^4 \bar{k}_{19}n_{2,19} + d_{21}^4 \bar{k}_{21}n_{2,21} + d_{22}^4 \bar{k}_{22}n_{2,22} + d_{24}^4 \bar{k}_{24}n_{2,24} + d_{25}^4 \bar{k}_{25}n_{2,25} + d_{27}^4 \bar{k}_{27}n_{2,27} + d_3^4 \bar{k}_{3}n_{2,3} + d_4^4 \bar{k}_{4}n_{2,4} + d_6^4 \bar{k}_{6}n_{2,6} + d_7^4 \bar{k}_{7}n_{2,7} + d_9^4 \bar{k}_{9}n_{2,9}))
\end{aligned}$$

$$\begin{aligned}
b_{32} = & \frac{1}{120}(5b_z^4 d_2^4 \bar{k}_2 n_{1,2} + 5b_z^4 d_{20}^4 \bar{k}_{20} n_{1,20} + 5b_z^4 d_{23}^4 \bar{k}_{23} n_{1,23} + 5b_z^4 d_{26}^4 \bar{k}_{26} n_{1,26} + 5b_z^4 d_5^4 \bar{k}_5 n_{1,5} + 5b_z^4 d_8^4 \bar{k}_8 n_{1,8} - (5b_z^4 - 10b_z^2 + 1)d_1^5 k_1 + 5d_1^4 \bar{k}_1(4b_z(b_z^2 - 1)n_{3,1} + (b_z^4 - 6b_z^2 + 1)n_{1,1}) + (-5b_z^4 + 10b_z^2 - 1)d_{19}^5 k_{19} + 5d_{19}^4 \bar{k}_{19}((b_z^4 - 6b_z^2 + 1)n_{1,19} - 4b_z(b_z^2 - 1)n_{3,19}) + (5b_z^4 - 10b_z^2 + 1)d_{21}^5 k_{21} + 5d_{21}^4 \bar{k}_{21}(4b_z(b_z^2 - 1)n_{3,21} + (b_z^4 - 6b_z^2 + 1)n_{1,21}) + (-5b_z^4 + 10b_z^2 - 1)d_{22}^5 k_{22} + 5d_{22}^4 \bar{k}_{22}((b_z^4 - 6b_z^2 + 1)n_{1,22} - 4b_z(b_z^2 - 1)n_{3,22}) + (5b_z^4 - 10b_z^2 + 1)d_{24}^5 k_{24} + 5d_{24}^4 \bar{k}_{24}(4b_z(b_z^2 - 1)n_{3,24} + (b_z^4 - 6b_z^2 + 1)n_{1,24}) + (-5b_z^4 + 10b_z^2 - 1)d_{25}^5 k_{25} + 5d_{25}^4 \bar{k}_{25}((b_z^4 - 6b_z^2 + 1)n_{1,25} - 4b_z(b_z^2 - 1)n_{3,25}) + (5b_z^4 - 10b_z^2 + 1)d_{27}^5 k_{27} + 5d_{27}^4 \bar{k}_{27}(4b_z(b_z^2 - 1)n_{3,27} + (b_z^4 - 6b_z^2 + 1)n_{1,27}) + (5b_z^4 - 10b_z^2 + 1)d_3^5 k_3 + 5d_3^4 \bar{k}_3((b_z^4 - 6b_z^2 + 1)n_{1,3} - 4b_z(b_z^2 - 1)n_{3,3}) - (5b_z^4 - 10b_z^2 + 1)d_4^5 k_4 + 5d_4^4 \bar{k}_4(4b_z(b_z^2 - 1)n_{3,4} + (b_z^4 - 6b_z^2 + 1)n_{1,4}) + (5b_z^4 - 10b_z^2 + 1)d_6^5 k_6 + 5d_6^4 \bar{k}_6((b_z^4 - 6b_z^2 + 1)n_{1,6} - 4b_z(b_z^2 - 1)n_{3,6}) - (5b_z^4 - 10b_z^2 + 1)d_7^5 k_7 + 5d_7^4 \bar{k}_7(4b_z(b_z^2 - 1)n_{3,7} + (b_z^4 - 6b_z^2 + 1)n_{1,7}) + (5b_z^4 - 10b_z^2 + 1)d_9^5 k_9 + 5d_9^4 \bar{k}_9((b_z^4 - 6b_z^2 + 1)n_{1,9} - 4b_z(b_z^2 - 1)n_{3,9}) - d_{10}^5 k_{10} + 5d_{10}^4 \bar{k}_{10}n_{1,10} + d_{12}^5 k_{12} + 5d_{12}^4 \bar{k}_{12}n_{1,12} - d_{13}^5 k_{13} + 5d_{13}^4 \bar{k}_{13}n_{1,13} + d_{15}^5 k_{15} + 5d_{15}^4 \bar{k}_{15}n_{1,15} - d_{16}^5 k_{16} + 5d_{16}^4 \bar{k}_{16}n_{1,16} + d_{18}^5 k_{18} + 5d_{18}^4 \bar{k}_{18}n_{1,18})
\end{aligned}$$

$$\begin{aligned}
b_{33} = & \frac{1}{6}(b_y(b_z^3(d_1^5(-k_1) + d_1^4 \bar{k}_1 n_{1,1} + d_5^5 k_{19} - d_4^4 \bar{k}_4 n_{1,19} + d_2^4 \bar{k}_2 n_{1,2} - d_2^4 \bar{k}_2 n_{1,20} - d_{21}^5 k_{21} - d_{21}^4 \bar{k}_{21} n_{1,21} - d_{25}^5 k_{25} + d_{25}^4 \bar{k}_{25} n_{1,25} + d_{26}^4 \bar{k}_{26} n_{1,26} + d_{27}^5 k_{27} + d_{27}^4 \bar{k}_{27} n_{1,27} + d_3^5 k_3 + d_3^4 \bar{k}_3 n_{1,3} + d_7^5 k_7 - d_7^4 \bar{k}_7 n_{1,7} - d_8^4 \bar{k}_8 n_{1,8} - d_9^5 k_9 - d_9^4 \bar{k}_9 n_{1,9}) + 3b_z^2(d_1^4 \bar{k}_1 n_{3,1} + d_{19}^4 \bar{k}_{19} n_{3,19} - d_{21}^4 \bar{k}_{21} n_{3,21} - d_{25}^4 \bar{k}_{25} n_{3,25} + d_{27}^4 \bar{k}_{27} n_{3,27} - d_3^4 \bar{k}_3 n_{3,3} - d_7^4 \bar{k}_7 n_{3,7} + d_9^4 \bar{k}_9 n_{3,9}) + b_z(d_1^5 k_1 - 3d_1^4 \bar{k}_1 n_{1,1} - d_{19}^5 k_{19} + 3d_{19}^4 \bar{k}_{19} n_{1,19} + d_{21}^5 k_{21} + 3d_{21}^4 \bar{k}_{21} n_{1,21} + d_{25}^5 k_{25} - 3d_{25}^4 \bar{k}_{25} n_{1,25} - d_{27}^5 k_{27} - 3d_{27}^4 \bar{k}_{27} n_{1,27} - d_3^5 k_3 - 3d_3^4 \bar{k}_3 n_{1,3} - d_7^5 k_7 + 3d_7^4 \bar{k}_7 n_{1,7} + d_9^5 k_9 + 3d_9^4 \bar{k}_9 n_{1,9}) + d_1^4(-k_1) n_{3,1} - d_{10}^4 \bar{k}_{10} n_{3,10} + d_{12}^4 \bar{k}_{12} n_{3,12} + d_{16}^4 \bar{k}_{16} n_{3,16} - d_{18}^4 \bar{k}_{18} n_{3,18} - d_{19}^4 \bar{k}_{19} n_{3,19} + d_{21}^4 \bar{k}_{21} n_{3,21} + d_{24}^4 \bar{k}_{25} n_{3,25} - d_{27}^4 \bar{k}_{27} n_{3,27} + d_3^4 \bar{k}_3 n_{3,3} + d_7^4 \bar{k}_7 n_{3,7} - d_9^4 \bar{k}_9 n_{3,9}) + b_z(b_z^2 - 1)(d_1^4 \bar{k}_1 n_{2,1} - d_{19}^4 \bar{k}_{19} n_{2,19} + d_{21}^4 \bar{k}_{21} n_{2,21} - d_{22}^4 \bar{k}_{22} n_{2,22} + d_{24}^4 \bar{k}_{24} n_{2,24} - d_{25}^4 \bar{k}_{25} n_{2,25} + d_{27}^4 \bar{k}_{27} n_{2,27} - d_3^4 \bar{k}_3 n_{2,3} + d_4^4 \bar{k}_4 n_{2,4} - d_6^4 \bar{k}_6 n_{2,6} + d_7^4 \bar{k}_7 n_{2,7} - d_9^4 \bar{k}_9 n_{2,9})))
\end{aligned}$$

$$\begin{aligned}
b_{34} = & \frac{1}{120}(-2(5(3b_z^2 - 1)b_y^2 - 5b_z^2 + 1)k_1d_1^5 + 10\bar{k}_1(3(b_z^2 - 1)n_{1,1}b_y^2 + 6b_zn_{3,1}b_y^2 + 2(3b_z^2 - 1)n_{2,1}b_y - \\
& 3b_z^2n_{1,1} + n_{1,1} - 2b_zn_{3,1})d_1^4 + 2(5b_y^2 - 1)d_{10}^5k_{10} + (2 - 10b_y^2)d_{12}^5k_{12} - 2d_{13}^5k_{13} + 2d_{15}^5k_{15} + 2(5b_y^2 - 1)d_{16}^5k_{16} + \\
& (2 - 10b_y^2)d_{18}^5k_{18} - 2(5(3b_z^2 - 1)b_y^2 - 5b_z^2 + 1)d_{19}^5k_{19} + 2(5(3b_z^2 - 1)b_y^2 - 5b_z^2 + 1)d_{21}^5k_{21} + 2(5b_z^2 - 1)d_{22}^5k_{22} + \\
& (2 - 10b_z^2)d_{24}^5k_{24} - 2(5(3b_z^2 - 1)b_y^2 - 5b_z^2 + 1)d_{25}^5k_{25} + 2(5(3b_z^2 - 1)b_y^2 - 5b_z^2 + 1)d_{27}^5k_{27} + 2(5(3b_z^2 - 1)b_y^2 - \\
& 5b_z^2 + 1)d_3^5k_3 + 2(5b_z^2 - 1)d_4^5k_4 + (2 - 10b_z^2)d_6^5k_6 - 2(5(3b_z^2 - 1)b_y^2 - 5b_z^2 + 1)d_7^5k_7 + 2(5(3b_z^2 - 1)b_y^2 - \\
& 5b_z^2 + 1)d_9^5k_9 + 10d_{13}^4\bar{k}_{13}n_{1,13} + 10d_{15}^4\bar{k}_{15}n_{1,15} + 30b_y^2b_z^2d_2^4\bar{k}_{2n1,2} + 30b_y^2b_z^2d_{20}^4\bar{k}_{20n1,20} + 30b_y^2b_z^2d_{26}^4\bar{k}_{26n1,26} + \\
& 30b_y^2b_z^2d_8^4\bar{k}_8n_{1,8} + 5d_{10}^4\bar{k}_{10}((2 - 6b_y^2)n_{1,10} - 4b_y n_{2,10}) + 5d_{12}^4\bar{k}_{12}((2 - 6b_y^2)n_{1,12} + 4b_y n_{2,12}) + 5d_{16}^4\bar{k}_{16}((2 - \\
& 6b_y^2)n_{1,16} + 4b_y n_{2,16}) + 5d_{18}^4\bar{k}_{18}((2 - 6b_y^2)n_{1,18} - 4b_y n_{2,18}) + 10d_{19}^4\bar{k}_{19}(3(b_z^2 - 1)n_{1,19}b_y^2 - 6b_zn_{3,19}b_y^2 + \\
& 2(3b_z^2 - 1)n_{2,19}b_y - 3b_z^2n_{1,19} + n_{1,19} + 2b_zn_{3,19}) + 10d_{21}^4\bar{k}_{21}(3(b_z^2 - 1)n_{1,21}b_y^2 + 6b_zn_{3,21}b_y^2 - 6b_z^2n_{2,21}b_y + \\
& 2n_{2,21}b_y - 3b_z^2n_{1,21} + n_{1,21} - 2b_zn_{3,21}) + 5d_{22}^4\bar{k}_{22}((2 - 6b_z^2)n_{1,22} + 4b_zn_{3,22}) + 5d_{24}^4\bar{k}_{24}((2 - 6b_z^2)n_{1,24} - \\
& 4b_zn_{3,24}) + 10d_{25}^4\bar{k}_{25}(3(b_z^2 - 1)n_{1,25}b_y^2 - 6b_zn_{3,25}b_y^2 - 6b_z^2n_{2,25}b_y + 2n_{2,25}b_y - 3b_z^2n_{1,25} + n_{1,25} + 2b_zn_{3,25}) + \\
& 10d_{27}^4\bar{k}_{27}(3(b_z^2 - 1)n_{1,27}b_y^2 + 6b_zn_{3,27}b_y^2 + 2(3b_z^2 - 1)n_{2,27}b_y - 3b_z^2n_{1,27} + n_{1,27} - 2b_zn_{3,27}) + 10d_3^4\bar{k}_3(3(b_z^2 - \\
& 1)n_{1,3}b_y^2 - 6b_zn_{3,3}b_y^2 - 6b_z^2n_{2,3}b_y + 2n_{2,3}b_y - 3b_z^2n_{1,3} + n_{1,3} + 2b_zn_{3,3}) + 5d_4^4\bar{k}_4((2 - 6b_z^2)n_{1,4} - 4b_zn_{3,4}) + \\
& 5d_6^4\bar{k}_6((2 - 6b_z^2)n_{1,6} + 4b_zn_{3,6}) + 10d_7^4\bar{k}_7(3(b_z^2 - 1)n_{1,7}b_y^2 + 6b_zn_{3,7}b_y^2 - 6b_z^2n_{2,7}b_y + 2n_{2,7}b_y - 3b_z^2n_{1,7} + \\
& n_{1,7} - 2b_zn_{3,7}) + 10d_9^4\bar{k}_9(3(b_z^2 - 1)n_{1,9}b_y^2 - 6b_zn_{3,9}b_y^2 + 2(3b_z^2 - 1)n_{2,9}b_y - 3b_z^2n_{1,9} + n_{1,9} + 2b_zn_{3,9}))
\end{aligned}$$

$$\begin{aligned}
b_{35} = & \frac{1}{6}(b_y^3(b_z(d_1^5(-k_1) + d_1^4\bar{k}_1n_{1,1} + d_{19}^5k_{19} - d_2^4\bar{k}_2n_{1,2} - d_{20}^4\bar{k}_{20}n_{1,20} - d_{21}^5k_{21} - d_{21}^4\bar{k}_{21}n_{1,21} - \\
& d_{25}^5k_{25} + d_{25}^4\bar{k}_{25}n_{1,25} + d_{26}^4\bar{k}_{26}n_{1,26} + d_{27}^5k_{27} + d_{27}^4\bar{k}_{27}n_{1,27} + d_3^5k_3 + d_3^4\bar{k}_{3n1,3} + d_7^5k_7 - d_7^4\bar{k}_7n_{1,7} - d_8^4\bar{k}_8n_{1,8} - \\
& d_9^5k_9 - d_9^4\bar{k}_9n_{1,9}) + d_1^4\bar{k}_1n_{3,1} + d_{10}^4\bar{k}_{10}n_{3,10} - d_{12}^4\bar{k}_{12}n_{3,12} - d_{16}^4\bar{k}_{16}n_{3,16} + d_{18}^4\bar{k}_{18}n_{3,18} + d_{19}^4\bar{k}_{19}n_{3,19} - d_{21}^4\bar{k}_{21}n_{3,21} - \\
& d_{25}^4\bar{k}_{25}n_{3,25} + d_{27}^4\bar{k}_{27}n_{3,27} - d_3^4\bar{k}_3n_{3,3} - d_7^4\bar{k}_7n_{3,7} + d_9^4\bar{k}_9n_{3,9}) + 3b_y^2b_z(d_1^4\bar{k}_1n_{2,1} - d_{19}^4\bar{k}_{19}n_{2,19} + d_{21}^4\bar{k}_{21}n_{2,21} - \\
& d_{25}^4\bar{k}_{25}n_{2,25} + d_{27}^4\bar{k}_{27}n_{2,27} - d_3^4\bar{k}_3n_{2,3} + d_7^4\bar{k}_7n_{2,7} - d_9^4\bar{k}_9n_{2,9}) + b_y(b_z(d_5^5k_1 - 3d_4^4\bar{k}_1n_{1,1} - d_{19}^5k_{19} + 3d_{19}^4\bar{k}_{19}n_{1,19} + \\
& d_{21}^5k_{21} + 3d_{21}^4\bar{k}_{21}n_{1,21} + d_{25}^5k_{25} - 3d_{25}^4\bar{k}_{25}n_{1,25} - d_{27}^5k_{27} - 3d_{27}^4\bar{k}_{27}n_{1,27} - d_3^5k_3 - 3d_3^4\bar{k}_3n_{1,3} - d_7^5k_7 + 3d_7^4\bar{k}_7n_{1,7} + d_9^5k_9 + \\
& 3d_9^4\bar{k}_9n_{1,9}) + d_4^4(-k_1)n_{3,1} - d_{10}^4\bar{k}_{10}n_{3,10} + d_{12}^4\bar{k}_{12}n_{3,12} + d_{16}^4\bar{k}_{16}n_{3,16} - d_{18}^4\bar{k}_{18}n_{3,18} - d_{19}^4\bar{k}_{19}n_{3,19} + d_{21}^4\bar{k}_{21}n_{3,21} + \\
& d_{25}^4\bar{k}_{25}n_{3,25} - d_{27}^4\bar{k}_{27}n_{3,27} + d_3^4\bar{k}_3n_{3,3} + d_7^4\bar{k}_7n_{3,7} - d_9^4\bar{k}_9n_{3,9}) + b_z(d_1^4(-k_1)n_{2,1} + d_{19}^4\bar{k}_{19}n_{2,19} - d_{21}^4\bar{k}_{21}n_{2,21} + \\
& d_{22}^4\bar{k}_{22}n_{2,22} - d_{24}^4\bar{k}_{24}n_{2,24} + d_{25}^4\bar{k}_{25}n_{2,25} - d_{27}^4\bar{k}_{27}n_{2,27} + d_3^4\bar{k}_3n_{2,3} - d_4^4\bar{k}_4n_{2,4} + d_6^4\bar{k}_6n_{2,6} - d_7^4\bar{k}_7n_{2,7} + d_9^4\bar{k}_9n_{2,9}))
\end{aligned}$$

$$\begin{aligned}
b_{36} = & \frac{1}{120}(5b_y^4d_{11}^4\bar{k}_{11}n_{1,11} + 5b_y^4d_{17}^4\bar{k}_{17}n_{1,17} + 5b_y^4d_2^4\bar{k}_2n_{1,2} + 5b_y^4d_{20}^4\bar{k}_{20}n_{1,20} + 5b_y^4d_{26}^4\bar{k}_{26}n_{1,26} + 5b_y^4d_8^4\bar{k}_8n_{1,8} - \\
& (5b_y^4 - 10b_y^2 + 1)d_1^5k_1 + 5d_1^4\bar{k}_1(4b_y(b_y^2 - 1)n_{2,1} + (b_y^4 - 6b_y^2 + 1)n_{1,1}) - (5b_y^4 - 10b_y^2 + 1)d_{10}^5k_{10} + 5d_{10}^4\bar{k}_{10}(4b_y(b_y^2 - \\
& 1)n_{2,10} + (b_y^4 - 6b_y^2 + 1)n_{1,10}) + (5b_y^4 - 10b_y^2 + 1)d_{12}^5k_{12} + 5d_{12}^4\bar{k}_{12}((b_y^4 - 6b_y^2 + 1)n_{1,12} - 4b_y(b_y^2 - 1)n_{2,12}) + \\
& (-5b_y^4 + 10b_y^2 - 1)d_{16}^5k_{16} + 5d_{16}^4\bar{k}_{16}((b_y^4 - 6b_y^2 + 1)n_{1,16} - 4b_y(b_y^2 - 1)n_{2,16}) + (5b_y^4 - 10b_y^2 + 1)d_{18}^5k_{18} + \\
& 5d_{18}^4\bar{k}_{18}(4b_y(b_y^2 - 1)n_{2,18} + (b_y^4 - 6b_y^2 + 1)n_{1,18}) + (-5b_y^4 + 10b_y^2 - 1)d_{19}^5k_{19} + 5d_{19}^4\bar{k}_{19}(4b_y(b_y^2 - 1)n_{2,19} + \\
& (b_y^4 - 6b_y^2 + 1)n_{1,19}) + (5b_y^4 - 10b_y^2 + 1)d_{21}^5k_{21} + 5d_{21}^4\bar{k}_{21}((b_y^4 - 6b_y^2 + 1)n_{1,21} - 4b_y(b_y^2 - 1)n_{2,21}) + \\
& (-5b_y^4 + 10b_y^2 - 1)d_{25}^5k_{25} + 5d_{25}^4\bar{k}_{25}((b_y^4 - 6b_y^2 + 1)n_{1,25} - 4b_y(b_y^2 - 1)n_{2,25}) + (5b_y^4 - 10b_y^2 + 1)d_{27}^5k_{27} + \\
& 5d_{27}^4\bar{k}_{27}(4b_y(b_y^2 - 1)n_{2,27} + (b_y^4 - 6b_y^2 + 1)n_{1,27}) + (5b_y^4 - 10b_y^2 + 1)d_3^5k_3 + 5d_3^4\bar{k}_3((b_y^4 - 6b_y^2 + 1)n_{1,3} - \\
& 4b_y(b_y^2 - 1)n_{2,3}) - (5b_y^4 - 10b_y^2 + 1)d_7^5k_7 + 5d_7^4\bar{k}_7((b_y^4 - 6b_y^2 + 1)n_{1,7} - 4b_y(b_y^2 - 1)n_{2,7}) + (5b_y^4 - 10b_y^2 + \\
& 1)d_9^5k_9 + 5d_9^4\bar{k}_9(4b_y(b_y^2 - 1)n_{2,9} + (b_y^4 - 6b_y^2 + 1)n_{1,9}) - d_{13}^5k_{13} + 5d_{13}^4\bar{k}_{13}n_{1,13} + d_{15}^5k_{15} + 5d_{15}^4\bar{k}_{15}n_{1,15} - \\
& d_{22}^5k_{22} + 5d_{22}^4\bar{k}_{22}n_{1,22} + d_{24}^5k_{24} + 5d_{24}^4\bar{k}_{24}n_{1,24} - d_4^5k_4 + 5d_4^4\bar{k}_4n_{1,4} + d_6^5k_6 + 5d_6^4\bar{k}_6n_{1,6})
\end{aligned}$$

$$\begin{aligned}
b_{37} = & \frac{1}{720}((b_z^6 - 15b_z^4 + 15b_z^2 - 1)k_1d_1^6 + 6\bar{k}_1((5b_z^4 - 10b_z^2 + 1)n_{1,1} - b_z(b_z^4 - 10b_z^2 + 5)n_{3,1})d_1^5 - d_{10}^6k_{10} - \\
& d_{12}^6k_{12} - d_{13}^6k_{13} - d_{15}^6k_{15} - d_{16}^6k_{16} - d_{18}^6k_{18} + (b_z^6 - 15b_z^4 + 15b_z^2 - 1)d_{19}^6k_{19} + b_z^6d_2^6k_2 + b_z^6d_{20}^6k_{20} + (b_z^6 - \\
& 15b_z^4 + 15b_z^2 - 1)d_{21}^6k_{21} + (b_z^6 - 15b_z^4 + 15b_z^2 - 1)d_{22}^6k_{22} + b_z^6d_{23}^6k_{23} + (b_z^6 - 15b_z^4 + 15b_z^2 - 1)d_{24}^6k_{24} + (b_z^6 - \\
& 15b_z^4 + 15b_z^2 - 1)d_{25}^6k_{25} + b_z^6d_{26}^6k_{26} + (b_z^6 - 15b_z^4 + 15b_z^2 - 1)d_{27}^6k_{27} + (b_z^6 - 15b_z^4 + 15b_z^2 - 1)d_3^6k_3 + (b_z^6 - \\
& 15b_z^4 + 15b_z^2 - 1)d_4^6k_4 + b_z^6d_5^6k_5 + (b_z^6 - 15b_z^4 + 15b_z^2 - 1)d_6^6k_6 + (b_z^6 - 15b_z^4 + 15b_z^2 - 1)d_7^6k_7 + b_z^6d_8^6k_8 + \\
& (b_z^6 - 15b_z^4 + 15b_z^2 - 1)d_9^6k_9 + 6d_{10}^5\bar{k}_{10}n_{1,10} - 6d_{12}^5\bar{k}_{12}n_{1,12} + 6d_{13}^5\bar{k}_{13}n_{1,13} - 6d_{15}^5\bar{k}_{15}n_{1,15} + 6d_{16}^5\bar{k}_{16}n_{1,16} -
\end{aligned}$$

$$\begin{aligned}
& 6d_{18}^5 \bar{k}_{18} n_{1,18} + 6d_{19}^5 \bar{k}_{19} ((5b_z^4 - 10b_z^2 + 1)n_{1,19} + b_z(b_z^4 - 10b_z^2 + 5)n_{3,19}) - 6b_z^5 d_2^5 \bar{k}_2 n_{3,2} + 6b_z^5 d_{20}^5 \bar{k}_{20} n_{3,20} - \\
& 6d_{21}^5 \bar{k}_{21} ((5b_z^4 - 10b_z^2 + 1)n_{1,21} - b_z(b_z^4 - 10b_z^2 + 5)n_{3,21}) + 6d_{22}^5 \bar{k}_{22} ((5b_z^4 - 10b_z^2 + 1)n_{1,22} + b_z(b_z^4 - 10b_z^2 + 5)n_{3,22}) + 6b_z^5 d_{23}^5 \bar{k}_{23} n_{3,23} - 6d_{24}^5 \bar{k}_{24} ((5b_z^4 - 10b_z^2 + 1)n_{1,24} - b_z(b_z^4 - 10b_z^2 + 5)n_{3,24}) + 6d_{25}^5 \bar{k}_{25} ((5b_z^4 - 10b_z^2 + 1)n_{1,25} + b_z(b_z^4 - 10b_z^2 + 5)n_{3,25}) + 6b_z^5 d_{26}^5 \bar{k}_{26} n_{3,26} - 6d_{27}^5 \bar{k}_{27} ((5b_z^4 - 10b_z^2 + 1)n_{1,27} - b_z(b_z^4 - 10b_z^2 + 5)n_{3,27}) - 6d_3^5 \bar{k}_3 ((5b_z^4 - 10b_z^2 + 1)n_{1,3} + b_z(b_z^4 - 10b_z^2 + 5)n_{3,3}) + 6d_4^5 \bar{k}_4 ((5b_z^4 - 10b_z^2 + 1)n_{1,4} - b_z(b_z^4 - 10b_z^2 + 5)n_{3,4}) - 6b_z^5 d_5^5 \bar{k}_5 n_{3,5} - 6d_6^5 \bar{k}_6 ((5b_z^4 - 10b_z^2 + 1)n_{1,6} + b_z(b_z^4 - 10b_z^2 + 5)n_{3,6}) + 6d_7^5 \bar{k}_7 ((5b_z^4 - 10b_z^2 + 1)n_{1,7} - b_z(b_z^4 - 10b_z^2 + 5)n_{3,7}) - 6b_z^5 d_8^5 \bar{k}_8 n_{3,8} - 6d_9^5 \bar{k}_9 ((5b_z^4 - 10b_z^2 + 1)n_{1,9} + b_z(b_z^4 - 10b_z^2 + 5)n_{3,9}))
\end{aligned}$$

$$\begin{aligned}
b_{38} = & \frac{1}{120} (b_z(-(b_z^4 - 10b_z^2 + 5)\bar{k}_1 n_{2,1} d_1^5 + (b_z^4 - 10b_z^2 + 5)d_1^5 \bar{k}_{19} n_{2,19} - b_z^4 d_2^5 \bar{k}_2 n_{2,2} + b_z^4 d_{20}^5 \bar{k}_{20} n_{2,20} + \\
& b_z^4 d_{21}^5 \bar{k}_{21} n_{2,21} - 10b_z^2 d_5^5 \bar{k}_{21} n_{2,21} + 5d_5^5 \bar{k}_{21} n_{2,21} + b_z^4 d_2^5 \bar{k}_{22} n_{2,22} - 10b_z^2 d_5^5 \bar{k}_{22} n_{2,22} + 5d_5^5 \bar{k}_{22} n_{2,22} + b_z^4 d_{23}^5 \bar{k}_{23} n_{2,23} + \\
& b_z^4 d_{24}^5 \bar{k}_{24} n_{2,24} - 10b_z^2 d_5^5 \bar{k}_{24} n_{2,24} + 5d_5^5 \bar{k}_{24} n_{2,24} + b_z^4 d_5^5 \bar{k}_{25} n_{2,25} - 10b_z^2 d_5^5 \bar{k}_{25} n_{2,25} + 5d_5^5 \bar{k}_{25} n_{2,25} + b_z^4 d_{26}^5 \bar{k}_{26} n_{2,26} + \\
& b_z^4 d_{27}^5 \bar{k}_{27} n_{2,27} - 10b_z^2 d_5^5 \bar{k}_{27} n_{2,27} + 5d_5^5 \bar{k}_{27} n_{2,27} - b_z^4 d_3^5 \bar{k}_3 n_{2,3} + 10b_z^2 d_5^5 \bar{k}_3 n_{2,3} - 5d_3^5 \bar{k}_3 n_{2,3} - b_z^4 d_4^5 \bar{k}_4 n_{2,4} + \\
& 10b_z^2 d_5^5 \bar{k}_4 n_{2,4} - 5d_5^5 \bar{k}_4 n_{2,4} - b_z^4 d_5^5 \bar{k}_5 n_{2,5} - b_z^4 d_5^5 \bar{k}_6 n_{2,6} + 10b_z^2 d_5^5 \bar{k}_6 n_{2,6} - 5d_5^5 \bar{k}_6 n_{2,6} - b_z^4 d_7^5 \bar{k}_7 n_{2,7} + 10b_z^2 d_5^5 \bar{k}_7 n_{2,7} - \\
& 5d_5^5 \bar{k}_7 n_{2,7} - b_z^4 d_8^5 \bar{k}_8 n_{2,8} - b_z^4 d_9^5 \bar{k}_9 n_{2,9} + 10b_z^2 d_9^5 \bar{k}_9 n_{2,9} - 5d_9^5 \bar{k}_9 n_{2,9}) + b_y((k_1 d_1^6 - d_{19}^6 k_{19} + d_2^6 k_2 - d_{20}^6 k_{20} - d_{21}^6 k_{21} + \\
& d_{25}^6 k_{25} + d_{26}^6 k_{26} + d_{27}^6 k_{27} + d_3^6 k_3 - d_7^6 k_7 - d_9^6 k_9) b_z^5 - 5(\bar{k}_1 n_{3,1} d_1^5 + d_{19}^5 \bar{k}_{19} n_{3,19} + d_2^5 \bar{k}_2 n_{3,2} + d_{20}^5 \bar{k}_{20} n_{3,20} + \\
& d_{21}^5 \bar{k}_{21} n_{3,21} - d_{25}^5 \bar{k}_{25} n_{3,25} - d_{26}^5 \bar{k}_{26} n_{3,26} - d_{27}^5 \bar{k}_{27} n_{3,27} + d_3^5 \bar{k}_3 n_{3,3} - d_7^5 \bar{k}_7 n_{3,7} - d_8^5 \bar{k}_8 n_{3,8} - d_9^5 \bar{k}_9 n_{3,9}) b_z^4 - 10(k_1 d_1^6 - \\
& 2\bar{k}_1 n_{1,1} d_1^5 - d_{19}^6 k_{19} - d_{21}^6 k_{21} + d_{25}^6 k_{25} + d_{27}^6 k_{27} + d_3^6 k_3 - d_7^6 k_7 - d_9^6 k_9 + 2d_{19}^5 \bar{k}_{19} n_{1,19} - 2d_{21}^5 \bar{k}_{21} n_{1,21} - 2d_{25}^5 \bar{k}_{25} n_{1,25} + \\
& 2d_{27}^5 \bar{k}_{27} n_{1,27} + 2d_3^5 \bar{k}_3 n_{1,3} + 2d_7^5 \bar{k}_7 n_{1,7} - 2d_9^5 \bar{k}_9 n_{1,9}) b_z^3 + 30(\bar{k}_1 n_{3,1} d_1^5 + d_{19}^5 \bar{k}_{19} n_{3,19} + d_2^5 \bar{k}_2 n_{3,21} - d_{25}^5 \bar{k}_{25} n_{3,25} - \\
& d_{27}^5 \bar{k}_{27} n_{3,27} + d_3^5 \bar{k}_3 n_{3,3} - d_7^5 \bar{k}_7 n_{3,7} - d_9^5 \bar{k}_9 n_{3,9}) b_z^2 + 5(k_1 d_1^6 - 4\bar{k}_1 n_{1,1} d_1^5 - d_{19}^6 k_{19} - d_{21}^6 k_{21} + d_{25}^6 k_{25} + d_{27}^6 k_{27} + \\
& d_3^6 k_3 - d_6^6 k_7 - d_9^6 k_9 + 4d_{19}^5 \bar{k}_{19} n_{1,19} - 4d_{21}^5 \bar{k}_{21} n_{1,21} - 4d_{25}^5 \bar{k}_{25} n_{1,25} + 4d_{27}^5 \bar{k}_{27} n_{1,27} + 4d_3^5 \bar{k}_3 n_{1,3} + 4d_7^5 \bar{k}_7 n_{1,7} - \\
& 4d_9^5 \bar{k}_9 n_{1,9}) b_z - 5(\bar{k}_1 n_{3,1} d_1^5 + d_{10}^5 \bar{k}_{10} n_{3,10} + d_{12}^5 \bar{k}_{12} n_{3,12} - d_{16}^5 \bar{k}_{16} n_{3,16} - d_{18}^5 \bar{k}_{18} n_{3,18} + d_{19}^5 \bar{k}_{19} n_{3,19} + d_{21}^5 \bar{k}_{21} n_{3,21} - \\
& d_{25}^5 \bar{k}_{25} n_{3,25} - d_{27}^5 \bar{k}_{27} n_{3,27} + d_3^5 \bar{k}_3 n_{3,3} - d_7^5 \bar{k}_7 n_{3,7} - d_9^5 \bar{k}_9 n_{3,9})))
\end{aligned}$$

$$\begin{aligned}
b_{39} = & \frac{1}{240} ((-5b_z^4 + 10b_z^2 + 5b_y^2(b_z^4 - 6b_z^2 + 1) - 1)k_1 d_1^6 + 2\bar{k}_1 ((5b_z^4 - 20b_z^2 + 10b_y^2(3b_z^2 - 1) + 3)n_{1,1} - \\
& 5(2b_z(b_z^2 - 3)n_{3,1} b_y^2 + (b_z^4 - 6b_z^2 + 1)n_{2,1} b_y - 2b_z(b_z^2 - 1)n_{3,1})) d_1^5 + (5b_y^2 - 1)d_{10}^6 k_{10} + (5b_y^2 - 1)d_{12}^6 k_{12} - d_{13}^6 k_{13} - \\
& d_{15}^6 k_{15} + (5b_y^2 - 1)d_{16}^6 k_{16} + (5b_y^2 - 1)d_{18}^6 k_{18} + (-5b_z^4 + 10b_z^2 + 5b_y^2(b_z^4 - 6b_z^2 + 1) - 1)d_{19}^6 k_{19} + 5b_y^2 b_z^4 d_6^6 k_2 + \\
& 5b_y^2 b_z^4 d_{20}^6 k_{20} + (-5b_z^4 + 10b_z^2 + 5b_y^2(b_z^4 - 6b_z^2 + 1) - 1)d_{21}^6 k_{21} - (5b_z^4 - 10b_z^2 + 1)d_{22}^6 k_{22} - (5b_z^4 - 10b_z^2 + 1)d_{24}^6 k_{24} + \\
& (-5b_z^4 + 10b_z^2 + 5b_y^2(b_z^4 - 6b_z^2 + 1) - 1)d_{25}^6 k_{25} + 5b_y^2 b_z^4 d_{26}^6 k_{26} + (-5b_z^4 + 10b_z^2 + 5b_y^2(b_z^4 - 6b_z^2 + 1) - 1)d_{27}^6 k_{27} + \\
& (-5b_z^4 + 10b_z^2 + 5b_y^2(b_z^4 - 6b_z^2 + 1) - 1)d_{28}^6 k_{28} - (5b_z^4 - 10b_z^2 + 1)d_{29}^6 k_4 - (5b_z^4 - 10b_z^2 + 1)d_6^6 k_6 + \\
& (-5b_z^4 + 10b_z^2 + 5b_y^2(b_z^4 - 6b_z^2 + 1) - 1)d_7^6 k_7 + 5b_y^2 b_z^4 d_8^6 k_8 + (-5b_z^4 + 10b_z^2 + 5b_y^2(b_z^4 - 6b_z^2 + 1) - 1)d_9^6 k_9 + \\
& 6d_5^5 \bar{k}_{13} n_{1,13} - 6d_{15}^5 \bar{k}_{15} n_{1,15} - 2d_{10}^5 \bar{k}_{10} ((10b_y^2 - 3)n_{1,10} + 5b_y n_{2,10}) + 2d_{12}^5 \bar{k}_{12} ((10b_y^2 - 3)n_{1,12} - 5b_y n_{2,12}) + \\
& 2d_{16}^5 \bar{k}_{16} ((3 - 10b_y^2)n_{1,16} + 5b_y n_{2,16}) + 2d_{18}^5 \bar{k}_{18} ((10b_y^2 - 3)n_{1,18} + 5b_y n_{2,18}) + 2d_{19}^5 \bar{k}_{19} ((5b_z^4 - 20b_z^2 + 10b_y^2(3b_z^2 - 1) + 3)n_{1,19} + 5(2b_z(b_z^2 - 3)n_{3,19} b_y^2 - (b_z^4 - 6b_z^2 + 1)n_{2,19} b_y - 2b_z(b_z^2 - 1)n_{3,19})) - 10b_y b_z^3 d_2^5 \bar{k}_2 (b_z n_{2,2} + 2b_y n_{3,2}) + \\
& 10b_y b_z^3 d_{20}^5 \bar{k}_{20} (2b_y n_{3,20} - b_z n_{2,20}) - 2d_{21}^5 \bar{k}_{21} ((5b_z^4 - 20b_z^2 + 10b_y^2(3b_z^2 - 1) + 3)n_{1,21} + 5(-2b_z(b_z^2 - 3)n_{3,21} b_y^2 + \\
& (b_z^4 - 6b_z^2 + 1)n_{2,21} b_y + 2b_z(b_z^2 - 1)n_{3,21})) + 2d_{22}^5 \bar{k}_{22} ((5b_z^4 - 20b_z^2 + 3)n_{1,22} - 10b_z(b_z^2 - 1)n_{3,22}) - 2d_{24}^5 \bar{k}_{24} ((5b_z^4 - 20b_z^2 + 3)n_{1,24} + 10b_z(b_z^2 - 1)n_{3,24}) + 2d_{25}^5 \bar{k}_{25} ((5b_z^4 - 20b_z^2 + 10b_y^2(3b_z^2 - 1) + 3)n_{1,25} + 5(2b_z(b_z^2 - 3)n_{3,25} b_y^2 + \\
& (b_z^4 - 6b_z^2 + 1)n_{2,25} b_y - 2b_z(b_z^2 - 1)n_{3,25})) + 10b_y b_z^3 d_{26}^5 \bar{k}_{26} (b_z n_{2,26} + 2b_y n_{3,26}) + 2d_{27}^5 \bar{k}_{27} ((-5b_z^4 + 20b_z^2 + b_y^2(10 - 30b_z^2) - 3)n_{1,27} + 5(2b_z(b_z^2 - 3)n_{3,27} b_y^2 + (b_z^4 - 6b_z^2 + 1)n_{2,27} b_y - 2b_z(b_z^2 - 1)n_{3,27})) - 2d_3^5 \bar{k}_3 ((5b_z^4 - 20b_z^2 + 10b_y^2(3b_z^2 - 1) + 3)n_{1,3} + 5(2b_z(b_z^2 - 3)n_{3,3} b_y^2 + (b_z^4 - 6b_z^2 + 1)n_{2,3} b_y - 2b_z(b_z^2 - 1)n_{3,3})) + 2d_4^5 \bar{k}_4 ((5b_z^4 - 20b_z^2 + 3)n_{1,4} + 10b_z(b_z^2 - 1)n_{3,4}) - 2d_6^5 \bar{k}_6 ((5b_z^4 - 20b_z^2 + 3)n_{1,6} - 10b_z(b_z^2 - 1)n_{3,6}) + 2d_7^5 \bar{k}_7 ((5b_z^4 - 20b_z^2 + 10b_y^2(3b_z^2 - 1) + 3)n_{1,7} + 5(-2b_z(b_z^2 - 3)n_{3,7} b_y^2 + (b_z^4 - 6b_z^2 + 1)n_{2,7} b_y + 2b_z(b_z^2 - 1)n_{3,7})) + 10b_y b_z^3 d_8^5 \bar{k}_8 (b_z n_{2,8} - 2b_y n_{3,8}) + \\
& 2d_9^5 \bar{k}_9 ((-5b_z^4 + 20b_z^2 + b_y^2(10 - 30b_z^2) - 3)n_{1,9} + 5(-2b_z(b_z^2 - 3)n_{3,9} b_y^2 + (b_z^4 - 6b_z^2 + 1)n_{2,9} b_y + 2b_z(b_z^2 - 1)n_{3,9})))
\end{aligned}$$

$$\begin{aligned}
b_{40} = & \frac{1}{36}(((k_1 d_1^6 - d_{19}^6 k_{19} + d_2^6 k_2 - d_{20}^6 k_{20} - d_{21}^6 k_{21} + d_{25}^6 k_{25} + d_{26}^6 k_{26} + d_{27}^6 k_{27} + d_3^6 k_3 - d_7^6 k_7 - d_8^6 k_8 - d_9^6 k_9) b_z^3 - \\
& 3(\bar{k}_1 n_{3,1} d_1^5 + d_{19}^5 \bar{k}_{19} n_{3,19} + d_2^5 \bar{k}_2 n_{3,2} + d_{20}^5 \bar{k}_{20} n_{3,20} + d_5^5 \bar{k}_{21} n_{3,21} - d_{25}^5 \bar{k}_{25} n_{3,25} - d_{26}^5 \bar{k}_{26} n_{3,26} - d_{27}^5 \bar{k}_{27} n_{3,27} + d_3^5 \bar{k}_3 n_{3,3} - \\
& d_7^5 \bar{k}_7 n_{3,7} - d_8^5 \bar{k}_8 n_{3,8} - d_9^5 \bar{k}_9 n_{3,9}) b_z^2 - 3(k_1 d_1^6 - 2\bar{k}_1 n_{1,1} d_1^5 - d_{19}^6 k_{19} - d_{21}^6 k_{21} + d_{25}^6 k_{25} + d_{27}^6 k_{27} + d_3^6 k_3 - d_7^6 k_7 - d_9^6 k_9 + \\
& 2d_{19}^5 \bar{k}_{19} n_{1,19} - 2d_{21}^5 \bar{k}_{21} n_{1,21} - 2d_{25}^5 \bar{k}_{25} n_{1,25} + 2d_{27}^5 \bar{k}_{27} n_{1,27} + 2d_3^5 \bar{k}_3 n_{1,3} + 2d_7^5 \bar{k}_7 n_{1,7} - 2d_9^5 \bar{k}_9 n_{1,9}) b_z + 3(\bar{k}_1 n_{3,1} d_1^5 + \\
& d_{10}^5 \bar{k}_{10} n_{3,10} + d_{12}^5 \bar{k}_{12} n_{3,12} - d_{16}^5 \bar{k}_{16} n_{3,16} - d_{18}^5 \bar{k}_{18} n_{3,18} + d_{19}^5 \bar{k}_{19} n_{3,19} + d_5^5 \bar{k}_{21} n_{3,21} - d_{25}^5 \bar{k}_{25} n_{3,25} - d_{27}^5 \bar{k}_{27} n_{3,27} + \\
& d_3^5 \bar{k}_3 n_{3,3} - d_7^5 \bar{k}_7 n_{3,7} - d_9^5 \bar{k}_9 n_{3,9}) b_y^3 - 3b_z((b_z^2 - 3)\bar{k}_1 n_{2,1} d_1^5 - (b_z^2 - 3)d_{19}^5 \bar{k}_{19} n_{2,19} + b_z^2 d_2^5 \bar{k}_2 n_{2,2} - b_z^2 d_{20}^5 \bar{k}_{20} n_{2,20} - \\
& b_z^2 d_{21}^5 \bar{k}_{21} n_{2,21} + 3d_{25}^5 \bar{k}_{25} n_{2,25} - b_z^2 d_{26}^5 \bar{k}_{26} n_{2,26} - b_z^2 d_{27}^5 \bar{k}_{27} n_{2,27} + 3d_{27}^5 \bar{k}_{27} n_{2,27} + \\
& b_z^2 d_3^5 \bar{k}_3 n_{2,3} - 3d_5^5 \bar{k}_3 n_{2,3} + b_z^2 d_7^5 \bar{k}_7 n_{2,7} - 3d_7^5 \bar{k}_7 n_{2,7} + b_z^2 d_8^5 \bar{k}_8 n_{2,8} + b_z^2 d_9^5 \bar{k}_9 n_{2,9} - 3d_9^5 \bar{k}_9 n_{2,9}) b_y^2 - 3(\bar{k}_1 n_{3,1} d_1^5 + \\
& b_z^3 (k_1 d_1^6 - 2\bar{k}_1 n_{1,1} d_1^5 - d_{19}^6 k_{19} - d_{21}^6 k_{21} + d_{25}^6 k_{25} + d_{27}^6 k_{27} + d_3^6 k_3 - d_7^6 k_7 - d_9^6 k_9 + 2d_{19}^5 \bar{k}_{19} n_{1,19} - 2d_{21}^5 \bar{k}_{21} n_{1,21} - \\
& 2d_{25}^5 \bar{k}_{25} n_{1,25} + 2d_{27}^5 \bar{k}_{27} n_{1,27} + 2d_3^5 \bar{k}_3 n_{1,3} + 2d_7^5 \bar{k}_7 n_{1,7} - 2d_9^5 \bar{k}_9 n_{1,9}) + b_z(-k_1 d_1^6 + 4\bar{k}_1 n_{1,1} d_1^5 + d_{19}^6 k_{19} + d_{21}^6 k_{21} - \\
& d_{25}^6 k_{25} - d_{27}^6 k_{27} - d_3^6 k_3 + d_7^6 k_7 + d_9^6 k_9 - 4d_{19}^5 \bar{k}_{19} n_{1,19} + 4d_{21}^5 \bar{k}_{21} n_{1,21} + 4d_{25}^5 \bar{k}_{25} n_{1,25} - 4d_{27}^5 \bar{k}_{27} n_{1,27} - 4d_3^5 \bar{k}_3 n_{1,3} - \\
& 4d_7^5 \bar{k}_7 n_{1,7} + 4d_9^5 \bar{k}_9 n_{1,9}) + d_{10}^5 \bar{k}_{10} n_{3,10} + d_{12}^5 \bar{k}_{12} n_{3,12} - d_{16}^5 \bar{k}_{16} n_{3,16} - d_{18}^5 \bar{k}_{18} n_{3,18} + d_{19}^5 \bar{k}_{19} n_{3,19} + d_{21}^5 \bar{k}_{21} n_{3,21} - \\
& d_{25}^5 \bar{k}_{25} n_{3,25} - d_{27}^5 \bar{k}_{27} n_{3,27} + d_5^5 \bar{k}_3 n_{3,3} - d_7^5 \bar{k}_7 n_{3,7} - d_9^5 \bar{k}_9 n_{3,9}) b_y + 3b_z(b_z^2 - 1)(\bar{k}_1 n_{2,1} d_1^5 - d_{19}^5 \bar{k}_{19} n_{2,19} - d_{21}^5 \bar{k}_{21} n_{2,21} - d_{22}^5 \bar{k}_{22} n_{2,22} - \\
& d_{24}^5 \bar{k}_{24} n_{2,24} - d_{25}^5 \bar{k}_{25} n_{2,25} - d_{27}^5 \bar{k}_{27} n_{2,27} + d_3^5 \bar{k}_3 n_{2,3} + d_4^5 \bar{k}_4 n_{2,4} + d_6^5 \bar{k}_6 n_{2,6} + d_7^5 \bar{k}_7 n_{2,7} + d_9^5 \bar{k}_9 n_{2,9}))
\end{aligned}$$

$$\begin{aligned}
b_{41} = & \frac{1}{240}((5(b_z^2 - 1)b_y^4 + (10 - 30b_z^2)b_y^2 + 5b_z^2 - 1)k_1 d_1^6 + 2\bar{k}_1((5b_y^4 + 10(3b_z^2 - 2)b_y^2 - 10b_z^2 + 3)n_{1,1} - \\
& 5(b_z n_{3,1} b_y^4 + 2(b_z^2 - 1)n_{2,1} b_y^3 - 6b_z n_{3,1} b_y^2 + (2 - 6b_z^2)n_{2,1} b_y + b_z n_{3,1}))d_1^5 - (5b_y^4 - 10b_y^2 + 1)d_{10}^6 k_{10} - (5b_y^4 - \\
& 10b_y^2 + 1)d_{12}^6 k_{12} - d_{13}^6 k_{13} - d_{15}^6 k_{15} - (5b_y^4 - 10b_y^2 + 1)d_{16}^6 k_{16} - (5b_y^4 - 10b_y^2 + 1)d_{18}^6 k_{18} + (5(b_z^2 - 1)b_y^4 + (10 - \\
& 30b_z^2)b_y^2 + 5b_z^2 - 1)d_{19}^6 k_{19} + 5b_y^4 b_z^2 d_2^6 k_2 + 5b_y^4 b_z^2 d_{20}^6 k_{20} + (5(b_z^2 - 1)b_y^4 + (10 - 30b_z^2)b_y^2 + 5b_z^2 - 1)d_{21}^6 k_{21} + \\
& (5b_z^2 - 1)d_{22}^6 k_{22} + (5b_z^2 - 1)d_{24}^6 k_{24} + (5(b_z^2 - 1)b_y^4 + (10 - 30b_z^2)b_y^2 + 5b_z^2 - 1)d_{25}^6 k_{25} + 5b_y^4 b_z^2 d_{26}^6 k_{26} + (5(b_z^2 - \\
& 1)b_y^4 + (10 - 30b_z^2)b_y^2 + 5b_z^2 - 1)d_{27}^6 k_{27} + (5(b_z^2 - 1)b_y^4 + (10 - 30b_z^2)b_y^2 + 5b_z^2 - 1)d_{33}^6 k_3 + (5b_z^2 - 1)d_4^6 k_4 + (5b_z^2 - \\
& 1)d_6^6 k_6 + (5(b_z^2 - 1)b_y^4 + (10 - 30b_z^2)b_y^2 + 5b_z^2 - 1)d_7^6 k_7 + 5b_y^4 b_z^2 d_8^6 k_8 + (5(b_z^2 - 1)b_y^4 + (10 - 30b_z^2)b_y^2 + 5b_z^2 - 1)d_{12}^6 \bar{k}_{12}((5b_y^4 - \\
& 20b_y^2 + 3)n_{1,12} - 10b_y(b_y^2 - 1)n_{2,12}) + 2d_{16}^5 \bar{k}_{16}((5b_y^4 - 20b_y^2 + 3)n_{1,16} - 10b_y(b_y^2 - 1)n_{2,16}) - 2d_{18}^5 \bar{k}_{18}((5b_y^4 - \\
& 20b_y^2 + 3)n_{1,18} + 10b_y(b_y^2 - 1)n_{2,18}) + 2d_{19}^5 \bar{k}_{19}((5b_y^4 + 10(3b_z^2 - 2)b_y^2 - 10b_z^2 + 3)n_{1,19} + 5(b_z n_{3,19} b_y^4 - 2(b_z^2 - \\
& 1)n_{2,19} b_y^3 - 6b_z n_{3,19} b_y^2 + 2(3b_z^2 - 1)n_{2,19} b_y + b_z n_{3,19})) - 10b_y^3 b_z d_2^5 \bar{k}_2(2b_z n_{2,2} + b_y n_{3,2}) + 10b_y^3 b_z d_{20}^5 \bar{k}_{20}(b_y n_{3,20} - \\
& 2b_z n_{2,20}) + 2d_{21}^5 \bar{k}_{21}((-5b_y^4 + (20 - 30b_z^2)b_y^2 + 10b_z^2 - 3)n_{1,21} + 5(b_z n_{3,21} b_y^4 - 2(b_z^2 - 1)n_{2,21} b_y^3 - 6b_z n_{3,21} b_y^2 + \\
& 2(3b_z^2 - 1)n_{2,21} b_y + b_z n_{3,21})) + 2d_{22}^5 \bar{k}_{22}((3 - 10b_z^2)n_{1,22} + 5b_z n_{3,22}) + 2d_{24}^5 \bar{k}_{24}((10b_z^2 - 3)n_{1,24} + 5b_z n_{3,24}) + \\
& 2d_{25}^5 \bar{k}_{25}((5b_y^4 + 10(3b_z^2 - 2)b_y^2 - 10b_z^2 + 3)n_{1,25} + 5(b_z n_{3,25} b_y^4 + 2(b_z^2 - 1)n_{2,25} b_y^3 - 6b_z n_{3,25} b_y^2 + (2 - \\
& 6b_z^2)n_{2,25} b_y + b_z n_{3,25})) + 10b_y^3 b_z d_{26}^5 \bar{k}_{26}(2b_z n_{2,26} + b_y n_{3,26}) + 2d_{27}^5 \bar{k}_{27}((-5b_y^4 + (20 - 30b_z^2)b_y^2 + 10b_z^2 - \\
& 3)n_{1,27} + 5(b_z n_{3,27} b_y^4 + 2(b_z^2 - 1)n_{2,27} b_y^3 - 6b_z n_{3,27} b_y^2 + (2 - 6b_z^2)n_{2,27} b_y + b_z n_{3,27})) - 2d_3^5 \bar{k}_3((5b_y^4 + 10(3b_z^2 - \\
& 2)b_y^2 - 10b_z^2 + 3)n_{1,3} + 5(b_z n_{3,3} b_y^4 + 2(b_z^2 - 1)n_{2,3} b_y^3 - 6b_z n_{3,3} b_y^2 + (2 - 6b_z^2)n_{2,3} b_y + b_z n_{3,3})) - 2d_4^5 \bar{k}_4((10b_z^2 - \\
& 3)n_{1,4} + 5b_z n_{3,4}) + 2d_6^5 \bar{k}_6((10b_z^2 - 3)n_{1,6} - 5b_z n_{3,6}) + 2d_7^5 \bar{k}_7((5b_y^4 + 10(3b_z^2 - 2)b_y^2 - 10b_z^2 + 3)n_{1,7} - 5(b_z n_{3,7} b_y^4 - \\
& 2(b_z^2 - 1)n_{2,7} b_y^3 - 6b_z n_{3,7} b_y^2 + 2(3b_z^2 - 1)n_{2,7} b_y + b_z n_{3,7})) - 10b_y^3 b_z d_8^5 \bar{k}_8(b_y n_{3,8} - 2b_z n_{2,8}) - 2d_9^5 \bar{k}_9((5b_y^4 + \\
& 10(3b_z^2 - 2)b_y^2 - 10b_z^2 + 3)n_{1,9} + 5(b_z n_{3,9} b_y^4 - 2(b_z^2 - 1)n_{2,9} b_y^3 - 6b_z n_{3,9} b_y^2 + 2(3b_z^2 - 1)n_{2,9} b_y + b_z n_{3,9})))
\end{aligned}$$

$$\begin{aligned}
b_{42} = & \frac{1}{120}(b_y^5 (b_z(d_1^6 k_1 - d_{19}^6 k_{19} + d_2^6 k_2 - d_{20}^6 k_{20} - d_{21}^6 k_{21} + d_{25}^6 k_{25} + d_{26}^6 k_{26} + d_{27}^6 k_{27} + d_3^6 k_3 - d_7^6 k_7 - \\
& d_8^6 k_8 - d_9^6 k_9) + d_1^5 (-\bar{k}_1) n_{3,1} - d_{10}^5 \bar{k}_{10} n_{3,10} - d_{11}^5 \bar{k}_{11} n_{3,11} - d_{12}^5 \bar{k}_{12} n_{3,12} + d_{16}^5 \bar{k}_{16} n_{3,16} + d_{17}^5 \bar{k}_{17} n_{3,17} + d_{18}^5 \bar{k}_{18} n_{3,18} - \\
& d_{19}^5 \bar{k}_{19} n_{3,19} - d_2^5 \bar{k}_2 n_{3,2} - d_{20}^5 \bar{k}_{20} n_{3,20} - d_{21}^5 \bar{k}_{21} n_{3,21} + d_{25}^5 \bar{k}_{25} n_{3,25} + d_{26}^5 \bar{k}_{26} n_{3,26} + d_{27}^5 \bar{k}_{27} n_{3,27} - d_3^5 \bar{k}_3 n_{3,3} + d_7^5 \bar{k}_7 n_{3,7} + \\
& d_8^5 \bar{k}_8 n_{3,8} + d_9^5 \bar{k}_9 n_{3,9}) - 5b_y^4 b_z(d_1^5 \bar{k}_1 n_{2,1} - d_{19}^5 \bar{k}_{19} n_{2,19} + d_2^5 \bar{k}_2 n_{2,2} - d_{20}^5 \bar{k}_{20} n_{2,20} - d_{21}^5 \bar{k}_{21} n_{2,21} - d_{25}^5 \bar{k}_{25} n_{2,25} - \\
& d_{26}^5 \bar{k}_{26} n_{2,26} - d_{27}^5 \bar{k}_{27} n_{2,27} + d_3^5 \bar{k}_3 n_{2,3} + d_7^5 \bar{k}_7 n_{2,7} + d_8^5 \bar{k}_8 n_{2,8} + d_9^5 \bar{k}_9 n_{2,9}) - 10b_y^3 (b_z(d_1^6 k_1 - 2d_1^5 \bar{k}_1 n_{1,1} - d_{19}^6 k_{19} + \\
& 2d_{19}^5 \bar{k}_{19} n_{1,19} - d_{21}^6 k_{21} - 2d_{21}^5 \bar{k}_{21} n_{1,21} + d_{25}^6 k_{25} - 2d_{25}^5 \bar{k}_{25} n_{1,25} + d_{27}^6 k_{27} + 2d_{27}^5 \bar{k}_{27} n_{1,27} + d_3^6 k_3 + 2d_3^5 \bar{k}_3 n_{1,3} - d_7^6 k_7 +
\end{aligned}$$

$$\begin{aligned}
& 2d_7^5 \bar{k}_7 n_{1,7} - d_9^6 k_9 - 2d_9^5 \bar{k}_9 n_{1,9} + d_1^5 (-\bar{k}_1) n_{3,1} - d_{10}^5 \bar{k}_{10} n_{3,10} - d_{12}^5 \bar{k}_{12} n_{3,12} + d_{16}^5 \bar{k}_{16} n_{3,16} + d_{18}^5 \bar{k}_{18} n_{3,18} - d_{19}^5 \bar{k}_{19} n_{3,19} - \\
& d_{21}^5 \bar{k}_{21} n_{3,21} + d_{25}^5 \bar{k}_{25} n_{3,25} + d_{27}^5 \bar{k}_{27} n_{3,27} - d_3^5 \bar{k}_3 n_{3,3} + d_7^5 \bar{k}_7 n_{3,7} + d_9^5 \bar{k}_9 n_{3,9} + 30b_y^2 b_z (d_1^5 \bar{k}_1 n_{2,1} - d_{19}^5 \bar{k}_{19} n_{2,19} - \\
& d_{21}^5 \bar{k}_{21} n_{2,21} - d_{25}^5 \bar{k}_{25} n_{2,25} - d_{27}^5 \bar{k}_{27} n_{2,27} + d_3^5 \bar{k}_3 n_{2,3} + d_7^5 \bar{k}_7 n_{2,7} + d_9^5 \bar{k}_9 n_{2,9}) + 5b_y (b_z (d_1^6 k_1 - 4d_1^5 \bar{k}_1 n_{1,1} - d_{19}^6 k_{19} + \\
& 4d_{19}^5 \bar{k}_{19} n_{1,19} - d_{21}^6 k_{21} - 4d_{21}^5 \bar{k}_{21} n_{1,21} + d_{25}^6 k_{25} - 4d_{25}^5 \bar{k}_{25} n_{1,25} + d_{27}^6 k_{27} + 4d_{27}^5 \bar{k}_{27} n_{1,27} + d_3^5 \bar{k}_3 + 4d_3^5 \bar{k}_3 n_{1,3} - d_6^6 k_7 + \\
& 4d_7^5 \bar{k}_7 n_{1,7} - d_9^6 k_9 - 4d_9^5 \bar{k}_9 n_{1,9}) + d_1^5 (-\bar{k}_1) n_{3,1} - d_{10}^5 \bar{k}_{10} n_{3,10} - d_{12}^5 \bar{k}_{12} n_{3,12} + d_{16}^5 \bar{k}_{16} n_{3,16} + d_{18}^5 \bar{k}_{18} n_{3,18} - d_{19}^5 \bar{k}_{19} n_{3,19} - \\
& d_{21}^5 \bar{k}_{21} n_{3,21} + d_{25}^5 \bar{k}_{25} n_{3,25} + d_{27}^5 \bar{k}_{27} n_{3,27} - d_3^5 \bar{k}_3 n_{3,3} + d_7^5 \bar{k}_7 n_{3,7} + d_9^5 \bar{k}_9 n_{3,9}) - 5b_z (d_1^5 \bar{k}_1 n_{2,1} - d_{19}^5 \bar{k}_{19} n_{2,19} - d_{21}^5 \bar{k}_{21} n_{2,21} - \\
& d_{22}^5 \bar{k}_{22} n_{2,22} - d_{24}^5 \bar{k}_{24} n_{2,24} - d_{25}^5 \bar{k}_{25} n_{2,25} - d_{27}^5 \bar{k}_{27} n_{2,27} + d_3^5 \bar{k}_3 n_{2,3} + d_4^5 \bar{k}_4 n_{2,4} + d_6^5 \bar{k}_6 n_{2,6} + d_7^5 \bar{k}_7 n_{2,7} + d_9^5 \bar{k}_9 n_{2,9})
\end{aligned}$$

$$\begin{aligned}
b_{43} = & \frac{1}{720} ((b_y^6 - 15b_y^4 + 15b_y^2 - 1) k_1 d_1^6 + 6\bar{k}_1 ((5b_y^4 - 10b_y^2 + 1) n_{1,1} - b_y (b_y^4 - 10b_y^2 + 5) n_{2,1}) d_1^5 + (b_y^6 - \\
& 15b_y^4 + 15b_y^2 - 1) d_{10}^6 k_{10} + b_y^6 d_{11}^6 k_{11} + (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_{12}^6 k_{12} - d_{13}^6 k_{13} - d_{15}^6 k_{15} + (b_y^6 - 15b_y^4 + \\
& 15b_y^2 - 1) d_{16}^6 k_{16} + b_y^6 d_{17}^6 k_{17} + (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_{18}^6 k_{18} + (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_{19}^6 k_{19} + b_y^6 d_2^6 k_2 + \\
& b_y^6 d_{20}^6 k_{20} + (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_{21}^6 k_{21} - d_{22}^6 k_{22} - d_{24}^6 k_{24} + (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_{25}^6 k_{25} + b_y^6 d_{26}^6 k_{26} + \\
& (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_{27}^6 k_{27} + (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_3^6 k_3 - d_4^6 k_4 - d_6^6 k_6 + (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_7^6 k_7 + \\
& b_y^6 d_8^6 k_8 + (b_y^6 - 15b_y^4 + 15b_y^2 - 1) d_9^6 k_9 + 6d_{13}^5 \bar{k}_{13} n_{1,13} - 6d_{15}^5 \bar{k}_{15} n_{1,15} + 6d_{22}^5 \bar{k}_{22} n_{1,22} - 6d_{24}^5 \bar{k}_{24} n_{1,24} + 6d_4^5 \bar{k}_4 n_{1,4} - \\
& 6d_6^5 \bar{k}_6 n_{1,6} + 6d_{10}^5 \bar{k}_{10} ((5b_y^4 - 10b_y^2 + 1) n_{1,10} - b_y (b_y^4 - 10b_y^2 + 5) n_{2,10}) - 6b_y^5 d_{11}^5 \bar{k}_{11} n_{2,11} - 6d_{12}^5 \bar{k}_{12} ((5b_y^4 - \\
& 10b_y^2 + 1) n_{1,12} + b_y (b_y^4 - 10b_y^2 + 5) n_{2,12}) + 6d_{16}^5 \bar{k}_{16} ((5b_y^4 - 10b_y^2 + 1) n_{1,16} + b_y (b_y^4 - 10b_y^2 + 5) n_{2,16}) + \\
& 6b_y^5 d_{17}^5 \bar{k}_{17} n_{2,17} - 6d_{18}^5 \bar{k}_{18} ((5b_y^4 - 10b_y^2 + 1) n_{1,18} - b_y (b_y^4 - 10b_y^2 + 5) n_{2,18}) + 6d_{19}^5 \bar{k}_{19} ((5b_y^4 - 10b_y^2 + 1) n_{1,19} - \\
& b_y (b_y^4 - 10b_y^2 + 5) n_{2,19}) - 6b_y^5 d_2^5 \bar{k}_2 n_{2,2} - 6b_y^5 d_{20}^5 \bar{k}_{20} n_{2,20} - 6d_{21}^5 \bar{k}_{21} ((5b_y^4 - 10b_y^2 + 1) n_{1,21} + b_y (b_y^4 - 10b_y^2 + \\
& 5) n_{2,21}) + 6d_{25}^5 \bar{k}_{25} ((5b_y^4 - 10b_y^2 + 1) n_{1,25} + b_y (b_y^4 - 10b_y^2 + 5) n_{2,25}) + 6b_y^5 d_{26}^5 \bar{k}_{26} n_{2,26} - 6d_{27}^5 \bar{k}_{27} ((5b_y^4 - 10b_y^2 + \\
& 1) n_{1,27} - b_y (b_y^4 - 10b_y^2 + 5) n_{2,27}) - 6d_3^5 \bar{k}_3 ((5b_y^4 - 10b_y^2 + 1) n_{1,3} + b_y (b_y^4 - 10b_y^2 + 5) n_{2,3}) + 6d_7^5 \bar{k}_7 ((5b_y^4 - \\
& 10b_y^2 + 1) n_{1,7} + b_y (b_y^4 - 10b_y^2 + 5) n_{2,7}) + 6b_y^5 d_8^5 \bar{k}_8 n_{2,8} - 6d_9^5 \bar{k}_9 ((5b_y^4 - 10b_y^2 + 1) n_{1,9} - b_y (b_y^4 - 10b_y^2 + 5) n_{2,9}))
\end{aligned}$$

$$\begin{aligned}
b_{44} = & \frac{1}{360} (3b_z^5 (d_1^6 k_1 - d_1^5 \bar{k}_1 n_{1,1} - d_{19}^6 k_{19} + d_{19}^5 \bar{k}_{19} n_{1,19} - d_2^5 \bar{k}_2 n_{1,2} + d_{20}^6 k_{20} n_{1,20} + d_{21}^6 k_{21} + d_{21}^5 \bar{k}_{21} n_{1,21} - d_{22}^6 k_{22} + \\
& d_{22}^5 \bar{k}_{22} n_{1,22} + d_{23}^5 \bar{k}_{23} n_{1,23} + d_{24}^6 k_{24} + d_{24}^5 \bar{k}_{24} n_{1,24} - d_{25}^6 k_{25} + d_{25}^5 \bar{k}_{25} n_{1,25} + d_{26}^5 \bar{k}_{26} n_{1,26} + d_{27}^6 k_{27} + d_{27}^5 \bar{k}_{27} n_{1,27} - \\
& d_3^6 k_3 - d_3^5 \bar{k}_3 n_{1,3} + d_4^6 k_4 - d_4^5 \bar{k}_4 n_{1,4} - d_5^5 \bar{k}_5 n_{1,5} - d_6^6 k_6 - d_6^5 \bar{k}_6 n_{1,6} + d_7^6 k_7 - d_7^5 \bar{k}_7 n_{1,7} - d_8^5 \bar{k}_8 n_{1,8} - d_9^6 k_9 - d_9^5 \bar{k}_9 n_{1,9}) - \\
& 15b_z^4 (d_1^5 \bar{k}_1 n_{3,1} + d_{19}^5 \bar{k}_{19} n_{3,19} - d_2^5 \bar{k}_2 n_{3,21} + d_{22}^5 \bar{k}_{22} n_{3,22} - d_{24}^5 \bar{k}_{24} n_{3,24} + d_{25}^5 \bar{k}_{25} n_{3,25} - d_{27}^5 \bar{k}_{27} n_{3,27} - d_3^5 \bar{k}_3 n_{3,3} + \\
& d_4^5 \bar{k}_4 n_{3,4} - d_5^5 \bar{k}_5 n_{3,6} + d_5^5 \bar{k}_5 n_{3,7} - d_5^5 \bar{k}_5 n_{3,9}) - 10b_z^3 (d_1^6 k_1 - 3d_1^5 \bar{k}_1 n_{1,1} - d_{19}^6 k_{19} + 3d_{19}^5 \bar{k}_{19} n_{1,19} + d_{21}^6 k_{21} + 3d_{21}^5 \bar{k}_{21} n_{1,21} - \\
& d_{22}^6 k_{22} + 3d_{22}^5 \bar{k}_{22} n_{1,22} + d_{24}^6 k_{24} + 3d_{24}^5 \bar{k}_{24} n_{1,24} - d_{25}^6 k_{25} + 3d_{25}^5 \bar{k}_{25} n_{1,25} + d_{27}^6 k_{27} + 3d_{27}^5 \bar{k}_{27} n_{1,27} - d_3^6 k_3 - 3d_3^5 \bar{k}_3 n_{1,3} + \\
& d_4^6 k_4 - 3d_4^5 \bar{k}_4 n_{1,4} - d_6^6 k_6 - 3d_6^5 \bar{k}_6 n_{1,6} + d_7^6 k_7 - 3d_7^5 \bar{k}_7 n_{1,7} - d_9^6 k_9 - 3d_9^5 \bar{k}_9 n_{1,9}) + 30b_z^2 (d_1^5 \bar{k}_1 n_{3,1} + d_{19}^5 \bar{k}_{19} n_{3,19} - \\
& d_{21}^5 \bar{k}_{21} n_{3,21} + d_{22}^5 \bar{k}_{22} n_{3,22} - d_{24}^5 \bar{k}_{24} n_{3,24} + d_{25}^5 \bar{k}_{25} n_{3,25} - d_{27}^5 \bar{k}_{27} n_{3,27} - d_3^5 \bar{k}_3 n_{3,3} + d_4^5 \bar{k}_4 n_{3,4} - d_5^5 \bar{k}_5 n_{3,6} + d_7^5 \bar{k}_7 n_{3,7} - \\
& d_9^5 \bar{k}_9 n_{3,9}) + 3b_z (d_1^6 k_1 - 5d_1^5 \bar{k}_1 n_{1,1} - d_6^6 k_6 + 5d_1^5 \bar{k}_1 n_{1,19} + d_6^6 k_6 + 5d_{21}^5 \bar{k}_{21} n_{1,21} - d_6^6 k_6 + 5d_{22}^5 \bar{k}_{22} n_{1,22} + \\
& d_{24}^6 k_{24} + 5d_{24}^5 \bar{k}_{24} n_{1,24} - d_{25}^6 k_{25} + 5d_{25}^5 \bar{k}_{25} n_{1,25} + d_{27}^6 k_{27} + 5d_{27}^5 \bar{k}_{27} n_{1,27} - d_3^6 k_3 - 5d_3^5 \bar{k}_3 n_{1,3} + d_4^6 k_4 - 5d_4^5 \bar{k}_4 n_{1,4} - \\
& d_6^6 k_6 - 5d_6^5 \bar{k}_6 n_{1,6} + d_7^6 k_7 - 5d_7^5 \bar{k}_7 n_{1,7} - d_9^6 k_9 - 5d_9^5 \bar{k}_9 n_{1,9}) - 3(d_1^5 \bar{k}_1 n_{3,1} + d_{10}^5 \bar{k}_{10} n_{3,10} - d_{12}^5 \bar{k}_{12} n_{3,12} + d_{13}^5 \bar{k}_{13} n_{3,13} - \\
& d_{15}^5 \bar{k}_{15} n_{3,15} + d_{16}^5 \bar{k}_{16} n_{3,16} - d_{18}^5 \bar{k}_{18} n_{3,18} + d_{19}^5 \bar{k}_{19} n_{3,19} - d_{21}^5 \bar{k}_{21} n_{3,21} + d_{22}^5 \bar{k}_{22} n_{3,22} - d_{24}^5 \bar{k}_{24} n_{3,24} + d_{25}^5 \bar{k}_{25} n_{3,25} - \\
& d_{27}^5 \bar{k}_{27} n_{3,27} - d_3^5 \bar{k}_3 n_{3,3} + d_4^5 \bar{k}_4 n_{3,4} - d_6^5 \bar{k}_6 n_{3,6} + d_7^5 \bar{k}_7 n_{3,7} - d_9^5 \bar{k}_9 n_{3,9}))
\end{aligned}$$

$$\begin{aligned}
b_{45} = & \frac{1}{120} (-5b_y b_z^4 d_2^5 \bar{k}_2 n_{1,2} - 5b_y b_z^4 d_{20}^5 \bar{k}_{20} n_{1,20} + 5b_y b_z^4 d_{20}^5 \bar{k}_{20} n_{1,26} + 5b_y b_z^4 d_8^5 \bar{k}_8 n_{1,8} + b_y (5b_z^4 - 10b_z^2 + \\
& 1) d_1^6 k_1 - d_1^5 \bar{k}_1 (5b_y (4b_z (b_z^2 - 1) n_{3,1} + (b_z^4 - 6b_z^2 + 1) n_{1,1}) + (5b_z^4 - 10b_z^2 + 1) n_{2,1}) + b_y (5b_z^4 - 10b_z^2 + 1) d_{19}^6 k_{19} - \\
& d_{19}^5 \bar{k}_{19} (5b_y ((b_z^4 - 6b_z^2 + 1) n_{1,19} - 4b_z (b_z^2 - 1) n_{3,19}) + (5b_z^4 - 10b_z^2 + 1) n_{2,19}) - b_y (5b_z^4 - 10b_z^2 + 1) d_{21}^6 k_{21} + \\
& d_{21}^5 \bar{k}_{21} ((5b_z^4 - 10b_z^2 + 1) n_{2,21} - 5b_y (4b_z (b_z^2 - 1) n_{3,21} + (b_z^4 - 6b_z^2 + 1) n_{1,21})) - b_y (5b_z^4 - 10b_z^2 + 1) d_{25}^6 k_{25} + \\
& d_{25}^5 \bar{k}_{25} (5b_y ((b_z^4 - 6b_z^2 + 1) n_{1,25} - 4b_z (b_z^2 - 1) n_{3,25}) + (-5b_z^4 + 10b_z^2 - 1) n_{2,25}) + b_y (5b_z^4 - 10b_z^2 + 1) d_{27}^6 k_{27} + \\
& d_{27}^5 \bar{k}_{27} (5b_y (4b_z (b_z^2 - 1) n_{3,27} + (b_z^4 - 6b_z^2 + 1) n_{1,27}) + (5b_z^4 - 10b_z^2 + 1) n_{2,27}) - b_y (5b_z^4 - 10b_z^2 + 1) d_3^6 k_3 - \\
& d_3^5 \bar{k}_3 (5b_y ((b_z^4 - 6b_z^2 + 1) n_{1,3} - 4b_z (b_z^2 - 1) n_{3,3}) + (-5b_z^4 + 10b_z^2 - 1) n_{2,3}) - b_y (5b_z^4 - 10b_z^2 + 1) d_7^6 k_7 - d_7^5 \bar{k}_7 ((5b_z^4 -
\end{aligned}$$

$$10b_z^2 + 1)n_{2,7} - 5b_y(4b_z(b_z^2 - 1)n_{3,7} + (b_z^4 - 6b_z^2 + 1)n_{1,7})) + b_y(5b_z^4 - 10b_z^2 + 1)d_9^6k_9 + d_9^5\bar{k}_9(5b_y((b_z^4 - 6b_z^2 + 1)n_{1,9} - 4b_z(b_z^2 - 1)n_{3,9}) + (5b_z^4 - 10b_z^2 + 1)n_{2,9}) + b_yd_{10}^6k_{10} - d_{10}^5\bar{k}_{10}(5b_y n_{1,10} + n_{2,10}) - b_yd_{12}^6k_{12} + d_{12}^5\bar{k}_{12}(n_{2,12} - 5b_y n_{1,12}) - b_yd_{16}^6k_{16} + d_{16}^5\bar{k}_{16}(5b_y n_{1,16} - n_{2,16}) + b_yd_{18}^6k_{18} + d_{18}^5\bar{k}_{18}(5b_y n_{1,18} + n_{2,18}) - (5b_z^4 - 10b_z^2 + 1)d_{22}^5\bar{k}_{22}n_{2,22} + (5b_z^4 - 10b_z^2 + 1)d_{24}^5\bar{k}_{24}n_{2,24} - (5b_z^4 - 10b_z^2 + 1)d_4^5\bar{k}_4n_{2,4} + (5b_z^4 - 10b_z^2 + 1)d_6^5\bar{k}_6n_{2,6} - d_{13}^5\bar{k}_{13}n_{2,13} + d_{15}^5\bar{k}_{15}n_{2,15})$$

$$b_{46} = \frac{1}{180}(5((3b_y^2 - 1)k_1d_1^6 - 3\bar{k}_1((b_y^2 - 1)n_{1,1} + 2b_y n_{2,1})d_1^5 + d_{19}^6(k_{19} - 3b_y^2 k_{19}) + 3b_y^2 d_{21}^6k_{21} - d_{21}^6k_{21} + d_{22}^6k_{22} - d_{24}^6k_{24} - 3b_y^2 d_{25}^6k_{25} + d_{25}^6k_{25} + 3b_y^2 d_{27}^6k_{27} - d_{27}^6k_{27} - 3b_y^2 d_3^6k_3 + d_3^6k_3 - d_4^6k_4 + d_6^6k_6 + 3b_y^2 d_7^6k_7 - d_7^6k_7 - 3b_y^2 d_9^6k_9 + d_9^6k_9 - 3b_y^2 d_{25}^5\bar{k}_{25}n_{1,2} + 3b_y^2 d_{20}^5\bar{k}_{20}n_{1,20} + 3b_y^2 d_{21}^5\bar{k}_{21}n_{1,21} - 3d_{21}^5\bar{k}_{21}n_{1,21} - 3d_{22}^5\bar{k}_{22}n_{1,22} - 3d_{24}^5\bar{k}_{24}n_{1,24} + 3b_y^2 d_{25}^5\bar{k}_{25}n_{1,25} - 3d_{25}^5\bar{k}_{25}n_{1,25} + 3b_y^2 d_{26}^5\bar{k}_{26}n_{1,26} + 3b_y^2 d_{27}^5\bar{k}_{27}n_{1,27} - 3d_{27}^5\bar{k}_{27}n_{1,27} - 3b_y^2 d_3^5\bar{k}_3n_{1,3} + 3d_3^5\bar{k}_3n_{1,3} + 3d_4^5\bar{k}_4n_{1,4} + 3d_6^5\bar{k}_6n_{1,6} - 3b_y^2 d_7^5\bar{k}_7n_{1,7} + 3d_5^5\bar{k}_7n_{1,7} - 3b_y^2 d_8^5\bar{k}_8n_{1,8} - 3b_y^2 d_9^5\bar{k}_9n_{1,9} + 3d_9^5\bar{k}_9n_{1,9} + 3d_{19}^5\bar{k}_{19}((b_y^2 - 1)n_{1,19} + 2b_y n_{2,19}) - 6b_yd_{21}^5\bar{k}_{21}n_{2,21} - 6b_yd_{25}^5\bar{k}_{25}n_{2,25} + 6b_yd_{27}^5\bar{k}_{27}n_{2,27} + 6b_yd_3^5\bar{k}_3n_{2,3} + 6b_yd_7^5\bar{k}_7n_{2,7} - 6b_yd_9^5\bar{k}_9n_{2,9})b_z^3 - 15((3b_y^2 - 1)\bar{k}_1n_{3,1}d_1^5 + (3b_y^2 - 1)d_5^5\bar{k}_{19}n_{3,19} - 3b_y^2 d_{21}^5\bar{k}_{21}n_{3,21} + d_5^5\bar{k}_{21}n_{3,21} - d_{22}^5\bar{k}_{22}n_{3,22} + d_{24}^5\bar{k}_{24}n_{3,24} + 3b_y^2 d_{25}^5\bar{k}_{25}n_{3,25} - d_{25}^5\bar{k}_{25}n_{3,25} - 3b_y^2 d_{27}^5\bar{k}_{27}n_{3,27} + d_{27}^5\bar{k}_{27}n_{3,27} - 3b_y^2 d_3^5\bar{k}_3n_{3,3} + d_3^5\bar{k}_3n_{3,3} - d_4^5\bar{k}_4n_{3,4} + d_6^5\bar{k}_6n_{3,6} + 3b_y^2 d_7^5\bar{k}_7n_{3,7} - d_7^5\bar{k}_7n_{3,7} - 3b_y^2 d_9^5\bar{k}_9n_{3,9} + d_9^5\bar{k}_9n_{3,9})b_z^2 - 3((5b_y^2 - 1)k_1d_1^6 - 5\bar{k}_1((3b_y^2 - 1)n_{1,1} + 2b_y n_{2,1})d_1^5 + d_{19}^6(k_{19} - 5b_y^2 k_{19}) + 5b_y^2 d_{21}^6k_{21} - d_{21}^6k_{21} + d_{22}^6k_{22} - d_{24}^6k_{24} - 5b_y^2 d_{25}^6k_{25} + d_{25}^6k_{25} + 5b_y^2 d_{27}^6k_{27} - d_{27}^6k_{27} - 5b_y^2 d_3^6k_3 + d_3^6k_3 - d_4^6k_4 + d_6^6k_6 + 5b_y^2 d_7^6k_7 - d_7^6k_7 - 5b_y^2 d_9^6k_9 + d_9^6k_9 + 15b_y^2 d_{21}^5\bar{k}_{21}n_{1,21} - 5d_{21}^5\bar{k}_{21}n_{1,21} - 5d_{22}^5\bar{k}_{22}n_{1,22} - 5d_{24}^5\bar{k}_{24}n_{1,24} + 15b_y^2 d_{25}^5\bar{k}_{25}n_{1,25} - 5d_{25}^5\bar{k}_{25}n_{1,25} + 15b_y^2 d_{27}^5\bar{k}_{27}n_{1,27} - 5d_{27}^5\bar{k}_{27}n_{1,27} - 15b_y^2 d_3^5\bar{k}_3n_{1,3} + 5d_3^5\bar{k}_3n_{1,3} + 5d_4^5\bar{k}_4n_{1,4} + 5d_6^5\bar{k}_6n_{1,6} - 15b_y^2 d_7^5\bar{k}_7n_{1,7} + 5d_7^5\bar{k}_7n_{1,7} - 15b_y^2 d_9^5\bar{k}_9n_{1,9} + 5d_9^5\bar{k}_9n_{1,9} + 5d_{19}^5\bar{k}_{19}(3n_{1,19}b_y^2 + 2n_{2,19}b_y - n_{1,19}) - 10b_yd_{21}^5\bar{k}_{21}n_{2,21} - 10b_yd_{25}^5\bar{k}_{25}n_{2,25} + 10b_yd_{27}^5\bar{k}_{27}n_{2,27} + 10b_yd_3^5\bar{k}_3n_{2,3} + 10b_yd_7^5\bar{k}_7n_{2,7} - 10b_yd_9^5\bar{k}_9n_{2,9})b_z + 3((5b_y^2 - 1)\bar{k}_1n_{3,1}d_1^5 + (5b_y^2 - 1)d_5^5\bar{k}_{10}n_{3,10} - 5b_y^2 d_{12}^5\bar{k}_{12}n_{3,12} + d_5^5\bar{k}_{12}n_{3,12} - d_{13}^5\bar{k}_{13}n_{3,13} + d_{15}^5\bar{k}_{15}n_{3,15} + 5b_y^2 d_{16}^5\bar{k}_{16}n_{3,16} - d_{16}^5\bar{k}_{16}n_{3,16} - 5b_y^2 d_{18}^5\bar{k}_{18}n_{3,18} + d_{18}^5\bar{k}_{18}n_{3,18} + 5b_y^2 d_{19}^5\bar{k}_{19}n_{3,19} - d_{19}^5\bar{k}_{19}n_{3,19} - 5b_y^2 d_{21}^5\bar{k}_{21}n_{3,21} + d_{21}^5\bar{k}_{21}n_{3,21} - d_{22}^5\bar{k}_{22}n_{3,22} + d_{24}^5\bar{k}_{24}n_{3,24} + 5b_y^2 d_{25}^5\bar{k}_{25}n_{3,25} - d_{25}^5\bar{k}_{25}n_{3,25} - 5b_y^2 d_{27}^5\bar{k}_{27}n_{3,27} + d_{27}^5\bar{k}_{27}n_{3,27} - 5b_y^2 d_3^5\bar{k}_3n_{3,3} + d_3^5\bar{k}_3n_{3,3} - d_4^5\bar{k}_4n_{3,4} + d_6^5\bar{k}_6n_{3,6} + 5b_y^2 d_7^5\bar{k}_7n_{3,7} - d_7^5\bar{k}_7n_{3,7} - 5b_y^2 d_9^5\bar{k}_9n_{3,9} + d_9^5\bar{k}_9n_{3,9}))$$

$$b_{47} = \frac{1}{180}(5((3b_z^2 - 1)k_1d_1^6 - 3\bar{k}_1((b_z^2 - 1)n_{1,1} + 2b_z n_{3,1})d_1^5 - d_{10}^6k_{10} + d_{12}^6k_{12} + d_{16}^6k_{16} - d_{18}^6k_{18} + 3b_z^2 d_{19}^6k_{19} - d_{19}^6k_{19} - 3b_z^2 d_{21}^6k_{21} + d_{21}^6k_{21} - 3b_z^2 d_{25}^6k_{25} + d_{25}^6k_{25} + 3b_z^2 d_{27}^6k_{27} - d_{27}^6k_{27} - 3b_z^2 d_3^6k_3 + d_3^6k_3 - 3b_z^2 d_7^6k_7 + d_7^6k_7 + 3b_z^2 d_9^6k_9 - d_9^6k_9 + 3d_{10}^5\bar{k}_{10}n_{1,10} + 3d_{12}^5\bar{k}_{12}n_{1,12} - 3d_{16}^5\bar{k}_{16}n_{1,16} - 3d_{18}^5\bar{k}_{18}n_{1,18} - 3b_z^2 d_{19}^5\bar{k}_{19}n_{1,19} + 3d_{19}^5\bar{k}_{19}n_{1,19} - 3b_z^2 d_2^5\bar{k}_2n_{1,2} - 3b_z^2 d_2^5\bar{k}_2n_{1,20} - 3b_z^2 d_{21}^5\bar{k}_{21}n_{1,21} + 3d_{21}^5\bar{k}_{21}n_{1,21} + 3b_z^2 d_{25}^5\bar{k}_{25}n_{1,25} - 3d_{25}^5\bar{k}_{25}n_{1,25} + 3b_z^2 d_{26}^5\bar{k}_{26}n_{1,26} + 3b_z^2 d_{27}^5\bar{k}_{27}n_{1,27} - 3d_{27}^5\bar{k}_{27}n_{1,27} - 3b_z^2 d_3^5\bar{k}_3n_{1,3} + 3d_3^5\bar{k}_3n_{1,3} + 3b_z^2 d_7^5\bar{k}_7n_{1,7} - 3d_7^5\bar{k}_7n_{1,7} + 3b_z^2 d_8^5\bar{k}_8n_{1,8} + 3b_z^2 d_9^5\bar{k}_9n_{1,9} - 3d_9^5\bar{k}_9n_{1,9} + 6b_zd_{19}^5\bar{k}_{19}n_{3,19} - 6b_zd_{21}^5\bar{k}_{21}n_{3,21} - 6b_zd_{25}^5\bar{k}_{25}n_{3,25} + 6b_zd_{27}^5\bar{k}_{27}n_{3,27} + 6b_zd_3^5\bar{k}_3n_{3,3} + 6b_zd_7^5\bar{k}_7n_{3,7} - 6b_zd_9^5\bar{k}_9n_{3,9})b_y^3 - 15((3b_z^2 - 1)\bar{k}_1n_{2,1}d_1^5 - d_5^5\bar{k}_{10}n_{2,10} + d_{12}^5\bar{k}_{12}n_{2,12} - d_{16}^5\bar{k}_{16}n_{2,16} + d_{18}^5\bar{k}_{18}n_{2,18} + 3b_z^2 d_{19}^5\bar{k}_{19}n_{2,19} - d_{19}^5\bar{k}_{19}n_{2,19} - 3b_z^2 d_{21}^5\bar{k}_{21}n_{2,21} + d_{21}^5\bar{k}_{21}n_{2,21} + 3b_z^2 d_{25}^5\bar{k}_{25}n_{2,25} - d_{25}^5\bar{k}_{25}n_{2,25} - 3b_z^2 d_{27}^5\bar{k}_{27}n_{2,27} + d_{27}^5\bar{k}_{27}n_{2,27} - 3b_z^2 d_3^5\bar{k}_3n_{2,3} + d_3^5\bar{k}_3n_{2,3} + 3b_z^2 d_7^5\bar{k}_7n_{2,7} - d_7^5\bar{k}_7n_{2,7} - 3b_z^2 d_9^5\bar{k}_9n_{2,9} + d_9^5\bar{k}_9n_{2,9})b_y^2 - 3((5b_z^2 - 1)k_1d_1^6 - 5\bar{k}_1(3n_{1,1}b_z^2 + 2n_{3,1}b_z - n_{1,1})d_1^5 - d_{10}^6k_{10} + d_{12}^6k_{12} + d_{16}^6k_{16} - d_{18}^6k_{18} + 5b_z^2 d_{21}^6k_{21} + d_{21}^6k_{21} - 5b_z^2 d_{25}^6k_{25} + d_{25}^6k_{25} + 5b_z^2 d_{27}^6k_{27} - d_{27}^6k_{27} - 5b_z^2 d_3^6k_3 + d_3^6k_3 - 5b_z^2 d_7^6k_7 + d_7^6k_7 + 5b_z^2 d_9^6k_9 - d_9^6k_9 + 5d_{10}^5\bar{k}_{10}n_{1,10} + 5d_{12}^5\bar{k}_{12}n_{1,12} - 5d_{16}^5\bar{k}_{16}n_{1,16} - 5d_{18}^5\bar{k}_{18}n_{1,18} - 15b_z^2 d_{19}^5\bar{k}_{19}n_{1,19} + 5d_{19}^5\bar{k}_{19}n_{1,19} - 15b_z^2 d_{21}^5\bar{k}_{21}n_{1,21} + 5d_{21}^5\bar{k}_{21}n_{1,21} + 15b_z^2 d_{25}^5\bar{k}_{25}n_{1,25} - 5d_{25}^5\bar{k}_{25}n_{1,25} + 15b_z^2 d_{27}^5\bar{k}_{27}n_{1,27} - 5d_{27}^5\bar{k}_{27}n_{1,27} - 15b_z^2 d_3^5\bar{k}_3n_{1,3} + 5d_3^5\bar{k}_3n_{1,3} + 15b_z^2 d_7^5\bar{k}_7n_{1,7} - 5d_7^5\bar{k}_7n_{1,7} + 15b_z^2 d_9^5\bar{k}_9n_{1,9} - 5d_9^5\bar{k}_9n_{1,9} + 10b_zd_{19}^5\bar{k}_{19}n_{3,19} - 10b_zd_{21}^5\bar{k}_{21}n_{3,21} - 10b_zd_{25}^5\bar{k}_{25}n_{3,25} + 10b_zd_{27}^5\bar{k}_{27}n_{3,27} + 10b_zd_3^5\bar{k}_3n_{3,3} + 10b_zd_7^5\bar{k}_7n_{3,7} - 10b_zd_9^5\bar{k}_9n_{3,9})b_y + 3((5b_z^2 - 1)\bar{k}_1n_{2,1}d_1^5 - d_{10}^6k_{10}n_{2,10} + d_{12}^6k_{12}n_{2,12} - d_{13}^6k_{13}n_{2,13} + d_{15}^6k_{15}n_{2,15} - d_{16}^6k_{16}n_{2,16} + d_{18}^6k_{18}n_{2,18} + 5b_z^2 d_{19}^5\bar{k}_{19}n_{2,19} - d_{19}^5\bar{k}_{19}n_{2,19} - 5b_z^2 d_{21}^5\bar{k}_{21}n_{2,21} + d_{21}^5\bar{k}_{21}n_{2,21} + 5b_z^2 d_{22}^5\bar{k}_{22}n_{2,22} - d_{22}^5\bar{k}_{22}n_{2,22} - 5b_z^2 d_{24}^5\bar{k}_{24}n_{2,24} + d_{24}^5\bar{k}_{24}n_{2,24} + 5b_z^2 d_{25}^5\bar{k}_{25}n_{2,25} - d_{25}^5\bar{k}_{25}n_{2,25} - 5b_z^2 d_{27}^5\bar{k}_{27}n_{2,27} + d_{27}^5\bar{k}_{27}n_{2,27} - 5b_z^2 d_3^5\bar{k}_3n_{2,3} + d_3^5\bar{k}_3n_{2,3} + 5b_z^2 d_7^5\bar{k}_7n_{2,7} - d_7^5\bar{k}_7n_{2,7} - 5b_z^2 d_9^5\bar{k}_9n_{2,9} + d_9^5\bar{k}_9n_{2,9})b_y)$$

$$d_6^5 \bar{k}_6 n_{2,6} + 5 b_z^2 d_7^5 \bar{k}_7 n_{2,7} - d_7^5 \bar{k}_7 n_{2,7} - 5 b_z^2 d_9^5 \bar{k}_9 n_{2,9} + d_9^5 \bar{k}_9 n_{2,9})$$

$$\begin{aligned} b_{48} = & \frac{1}{120} (-5 b_y^4 b_z d_2^5 \bar{k}_2 n_{1,2} + 5 b_y^4 b_z d_{20}^5 \bar{k}_{20} n_{1,20} + 5 b_y^4 b_z d_{26}^5 \bar{k}_{26} n_{1,26} - 5 b_y^4 b_z d_8^5 \bar{k}_8 n_{1,8} + (5 b_y^4 - 10 b_y^2 + 1) b_z d_1^6 k_1 - d_1^5 \bar{k}_1 (5 b_z (4 b_y (b_y^2 - 1) n_{2,1} + (b_y^4 - 6 b_y^2 + 1) n_{1,1}) + (5 b_y^4 - 10 b_y^2 + 1) n_{3,1}) - (5 b_y^4 - 10 b_y^2 + 1) b_z d_{19}^6 k_{19} + d_{19}^5 \bar{k}_{19} (5 b_z (4 b_y (b_y^2 - 1) n_{2,19} + (b_y^4 - 6 b_y^2 + 1) n_{1,19}) + (-5 b_y^4 + 10 b_y^2 - 1) n_{3,19}) + (5 b_y^4 - 10 b_y^2 + 1) b_z d_{21}^6 k_{21} + d_{21}^5 \bar{k}_{21} (5 b_z ((b_y^4 - 6 b_y^2 + 1) n_{1,21} - 4 b_y (b_y^2 - 1) n_{2,21}) + (5 b_y^4 - 10 b_y^2 + 1) n_{3,21}) - (5 b_y^4 - 10 b_y^2 + 1) b_z d_{25}^6 k_{25} + d_{25}^5 \bar{k}_{25} (5 b_z ((b_y^4 - 6 b_y^2 + 1) n_{1,25} - 4 b_y (b_y^2 - 1) n_{2,25}) + (-5 b_y^4 + 10 b_y^2 - 1) n_{3,25}) + (5 b_y^4 - 10 b_y^2 + 1) b_z d_{27}^6 k_{27} + d_{27}^5 \bar{k}_{27} (5 b_z (4 b_y (b_y^2 - 1) n_{2,27} + (b_y^4 - 6 b_y^2 + 1) n_{1,27}) + (5 b_y^4 - 10 b_y^2 + 1) n_{3,27}) - (5 b_y^4 - 10 b_y^2 + 1) b_z d_3^6 k_3 - d_3^5 \bar{k}_3 (5 b_z ((b_y^4 - 6 b_y^2 + 1) n_{1,3} - 4 b_y (b_y^2 - 1) n_{2,3}) + (-5 b_y^4 + 10 b_y^2 - 1) n_{3,3}) + (5 b_y^4 - 10 b_y^2 + 1) b_z d_7^6 k_7 - d_7^5 \bar{k}_7 (5 b_z ((b_y^4 - 6 b_y^2 + 1) n_{1,7} - 4 b_y (b_y^2 - 1) n_{2,7}) + (5 b_y^4 - 10 b_y^2 + 1) n_{3,7}) - (5 b_y^4 - 10 b_y^2 + 1) b_z d_9^6 k_9 + d_9^5 \bar{k}_9 ((5 b_y^4 - 10 b_y^2 + 1) n_{3,9} - 5 b_z (4 b_y (b_y^2 - 1) n_{2,9} + (b_y^4 - 6 b_y^2 + 1) n_{1,9})) - (5 b_y^4 - 10 b_y^2 + 1) d_{10}^5 \bar{k}_{10} n_{3,10} + (5 b_y^4 - 10 b_y^2 + 1) d_{12}^5 \bar{k}_{12} n_{3,12} - (5 b_y^4 - 10 b_y^2 + 1) d_{16}^5 \bar{k}_{16} n_{3,16} + (5 b_y^4 - 10 b_y^2 + 1) d_{18}^5 \bar{k}_{18} n_{3,18} - b_z d_{22}^6 k_{22} + d_{22}^5 \bar{k}_{22} (5 b_z n_{1,22} - n_{3,22}) + b_z d_{24}^6 k_{24} + d_{24}^5 \bar{k}_{24} (5 b_z n_{1,24} + n_{3,24}) + b_z d_4^6 k_4 - d_4^5 \bar{k}_4 (5 b_z n_{1,4} + n_{3,4}) - b_z d_6^6 k_6 + d_6^5 \bar{k}_6 (n_{3,6} - 5 b_z n_{1,6}) - d_{13}^5 \bar{k}_{13} n_{3,13} + d_{15}^5 \bar{k}_{15} n_{3,15}) \end{aligned}$$

$$\begin{aligned} b_{49} = & \frac{1}{360} (3 b_y^5 (d_1^6 k_1 - d_1^5 \bar{k}_1 n_{1,1} + d_{10}^6 k_{10} - d_{10}^5 \bar{k}_{10} n_{1,10} - d_{11}^5 \bar{k}_{11} n_{1,11} - d_{12}^6 k_{12} - d_{12}^5 \bar{k}_{12} n_{1,12} - d_{16}^6 k_{16} + d_{16}^5 \bar{k}_{16} n_{1,16} + d_{17}^5 \bar{k}_{17} n_{1,17} + d_{18}^6 k_{18} + d_{18}^5 \bar{k}_{18} n_{1,18} + d_{19}^6 k_{19} - d_{19}^5 \bar{k}_{19} n_{1,19} - d_{20}^5 \bar{k}_{20} n_{1,20} - d_{21}^6 k_{21} - d_{21}^5 \bar{k}_{21} n_{1,21} - d_{25}^6 k_{25} + d_{25}^5 \bar{k}_{25} n_{1,25} + d_{26}^5 \bar{k}_{26} n_{1,26} + d_{27}^6 k_{27} + d_{27}^5 \bar{k}_{27} n_{1,27} - d_3^6 k_3 - d_3^5 \bar{k}_3 n_{1,3} - d_7^6 k_7 + d_7^5 \bar{k}_7 n_{1,7} + d_8^5 \bar{k}_8 n_{1,8} + d_9^6 k_9 + d_9^5 \bar{k}_9 n_{1,9}) - 15 b_y^4 (d_1^5 \bar{k}_1 n_{2,1} + d_{10}^5 \bar{k}_{10} n_{2,10} - d_{12}^5 \bar{k}_{12} n_{2,12} + d_{16}^5 \bar{k}_{16} n_{2,16} - d_{18}^5 \bar{k}_{18} n_{2,18} + d_{19}^5 \bar{k}_{19} n_{2,19} - d_{21}^5 \bar{k}_{21} n_{2,21} + d_{25}^5 \bar{k}_{25} n_{2,25} - d_{27}^5 \bar{k}_{27} n_{2,27} - d_3^5 \bar{k}_3 n_{2,3} + d_7^5 \bar{k}_7 n_{2,7} - d_9^5 \bar{k}_9 n_{2,9}) - 10 b_y^3 (d_1^6 k_1 - 3 d_1^5 \bar{k}_1 n_{1,1} + d_{10}^6 k_{10} - 3 d_{10}^5 \bar{k}_{10} n_{1,10} - d_{12}^6 k_{12} - 3 d_{12}^5 \bar{k}_{12} n_{1,12} - d_{16}^6 k_{16} + 3 d_{16}^5 \bar{k}_{16} n_{1,16} + d_{18}^6 k_{18} + 3 d_{18}^5 \bar{k}_{18} n_{1,18} + d_{19}^6 k_{19} - 3 d_{19}^5 \bar{k}_{19} n_{1,19} - d_{21}^6 k_{21} - 3 d_{21}^5 \bar{k}_{21} n_{1,21} - d_{25}^6 k_{25} + 3 d_{25}^5 \bar{k}_{25} n_{1,25} + d_{27}^6 k_{27} + 3 d_{27}^5 \bar{k}_{27} n_{1,27} - d_3^6 k_3 - 3 d_3^5 \bar{k}_3 n_{1,3} - d_7^6 k_7 + 3 d_7^5 \bar{k}_7 n_{1,7} + d_9^6 k_9 + 3 d_9^5 \bar{k}_9 n_{1,9}) + 30 b_y^2 (d_1^5 \bar{k}_1 n_{2,1} + d_{10}^5 \bar{k}_{10} n_{2,10} - d_{12}^5 \bar{k}_{12} n_{2,12} + d_{16}^5 \bar{k}_{16} n_{2,16} - d_{18}^5 \bar{k}_{18} n_{2,18} + d_{19}^5 \bar{k}_{19} n_{2,19} - d_{21}^5 \bar{k}_{21} n_{2,21} + d_{25}^5 \bar{k}_{25} n_{2,25} - d_{27}^5 \bar{k}_{27} n_{2,27} - d_3^5 \bar{k}_3 n_{2,3} + d_7^5 \bar{k}_7 n_{2,7} - d_9^5 \bar{k}_9 n_{2,9}) + 3 b_y (d_1^6 k_1 - 5 d_1^5 \bar{k}_1 n_{1,1} + d_{10}^6 k_{10} - 5 d_{10}^5 \bar{k}_{10} n_{1,10} - d_{12}^6 k_{12} - 5 d_{12}^5 \bar{k}_{12} n_{1,12} - d_{16}^6 k_{16} + 5 d_{16}^5 \bar{k}_{16} n_{1,16} + d_{18}^6 k_{18} + 5 d_{18}^5 \bar{k}_{18} n_{1,18} + d_{19}^6 k_{19} - 5 d_{19}^5 \bar{k}_{19} n_{1,19} - d_{21}^6 k_{21} - 5 d_{21}^5 \bar{k}_{21} n_{1,21} - d_{25}^6 k_{25} + 5 d_{25}^5 \bar{k}_{25} n_{1,25} + d_{27}^6 k_{27} + 5 d_{27}^5 \bar{k}_{27} n_{1,27} - d_3^6 k_3 - 5 d_3^5 \bar{k}_3 n_{1,3} - d_7^6 k_7 + 5 d_7^5 \bar{k}_7 n_{1,7} + d_9^6 k_9 + 5 d_9^5 \bar{k}_9 n_{1,9}) - 3 (d_1^5 \bar{k}_1 n_{2,1} + d_{10}^5 \bar{k}_{10} n_{2,10} - d_{12}^5 \bar{k}_{12} n_{2,12} + d_{13}^5 \bar{k}_{13} n_{2,13} - d_5^5 \bar{k}_{15} n_{2,15} + d_{16}^5 \bar{k}_{16} n_{2,16} - d_{18}^5 \bar{k}_{18} n_{2,18} + d_{19}^5 \bar{k}_{19} n_{2,19} - d_{21}^5 \bar{k}_{21} n_{2,21} + d_{22}^5 \bar{k}_{22} n_{2,22} - d_{24}^5 \bar{k}_{24} n_{2,24} + d_{25}^5 \bar{k}_{25} n_{2,25} - d_{27}^5 \bar{k}_{27} n_{2,27} - d_3^5 \bar{k}_3 n_{2,3} + d_4^5 \bar{k}_4 n_{2,4} - d_6^5 \bar{k}_6 n_{2,6} + d_7^5 \bar{k}_7 n_{2,7} - d_9^5 \bar{k}_9 n_{2,9})) \end{aligned}$$