

# $F'_{abc}(x_r) = \text{Ableitung unbunte Rezeptorerregung}$

$$F_{abc}(x_r) = b \frac{e^{x_r/a} - e^{-x_r/c}}{e^{x_r/a} + e^{-x_r/c}}$$

$$e=2,718282, a'=a \ln(10)=2,302$$

$$a_1=1.0, b_1=1.0, c_1=1.0$$

$$a_2=0.707, b_2=-0.999, c_2=0.707$$

$$F'_{abc}(x_r) = 4b [1/a + 1/c] [e^{x_r/a} \cdot e^{-x_r/c}] / [e^{x_r/a} + e^{-x_r/c}]^2$$

