Comparison of Elementary Mass Action and Michaelis-Menten Kinetics

Elementary Mass Action Constants: $k_1 = 1 \cdot 10^9$ $k_i = 4.4 \cdot 10^4$ $k_2 = 1 \cdot 10^3$

Michaelis-Menten Kinetic Constants: $v_{max} = 1$ $K_m = 4.5 \cdot 10^{-5}$

Initial Concentrations: $S_0 = 0.001$ $E_0 = 0.001$