Supporting Information for the Manuscript:

The Thermodynamics of Phosphate versus Phosphorothioate Ester Hydrolysis

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Figure S1. Eyring plot for the hydrolysis reaction of ethyl *p*-nitrophenyl phosphate (EtO-*p*NPP). The second-order rate constants (*k*) are in units of M⁻¹ sec⁻¹ and temperatures are Kelvin. The fit obeys the equation: $\ln(k/T) = -8166 * (1/T) + 7.2$.

Figure S2. Eyring plot for the hydrolysis reaction of ethyl *p*-nitrophenyl phosphorothioate (EtO-*p*NPPT). The second-order rate constants (*k*) are in units of M⁻¹ sec⁻¹, and temperatures are Kelvin. The fit obeys the equation: $\ln(k/T) = -9339 * (1/T) + 10.2$.

Figure S3. Eyring plot for the hydrolysis reaction of diethyl *p*-nitrophenyl phosphate (Paraoxon). The second-order rate constants (*k*) are in units of M⁻¹ sec⁻¹ and temperatures are Kelvin. The fit obeys the equation: $\ln(k/T) = -6298 * (1/T) + 8.3$.

Figure S4. Eyring plot for the hydrolysis reaction of diethyl *p*-nitrophenyl phosphorothioate (Parathion). The second-order rate constants (*k*) are in units of M⁻¹sec⁻¹ and temperatures are Kelvin. The fit obeys the equation: $\ln(k/T) = -7409 * (1/T) + 9.7$.