

Supplementary Information

Figure S1. Apparent energy barrier due to the temperature-dependent permeability of the oxygen electrode membrane. Pseudo cyclooxygenase reaction rates (k_{pseudo}) were calculated for the temperature range 288–310 K, starting with $k_{\text{pseudo}} = 1$ at 288 K and using a 3% (circles) or 5% (triangles) temperature coefficient of the O_2 electrode membrane. The $\ln k_{\text{pseudo}}$ is plotted vs. $1/T$ and the plots are approximately linear. The slopes of the linear fits shown reflect the apparent energy barriers due to the temperature dependent permeability of the O_2 electrode membrane, $\Delta E_{\text{apparent}} = 17$ kJ/mol (for a 3% temperature coefficient) and 25 kJ/mol (for a 5% temperature coefficient).

