

Fig. S1

Figure S1. Estimation of K_m value for iodide of native laccase in forest soil. Iodide sorption rates ($\text{nmol min}^{-1} \text{g soil}^{-1}$) and their reciprocals are plotted against stable iodide concentrations (μM) and their reciprocals. The sorption rates were calculated from the data plotted on Fig. 1C after the incubation of the slurry for 72 h. In the double reciprocal plot, an X-intercept represents $-1/K_m$. Thus, K_m was calculated to be $97 \mu\text{M}$ from the equation described in the figure. Generally, 3 data points are not enough for K_m calculation, the estimated K_m value ($97 \mu\text{M}$) is within the range of iodide concentrations (10 to $1,000 \mu\text{M}$), where the 3 data points were obtained.

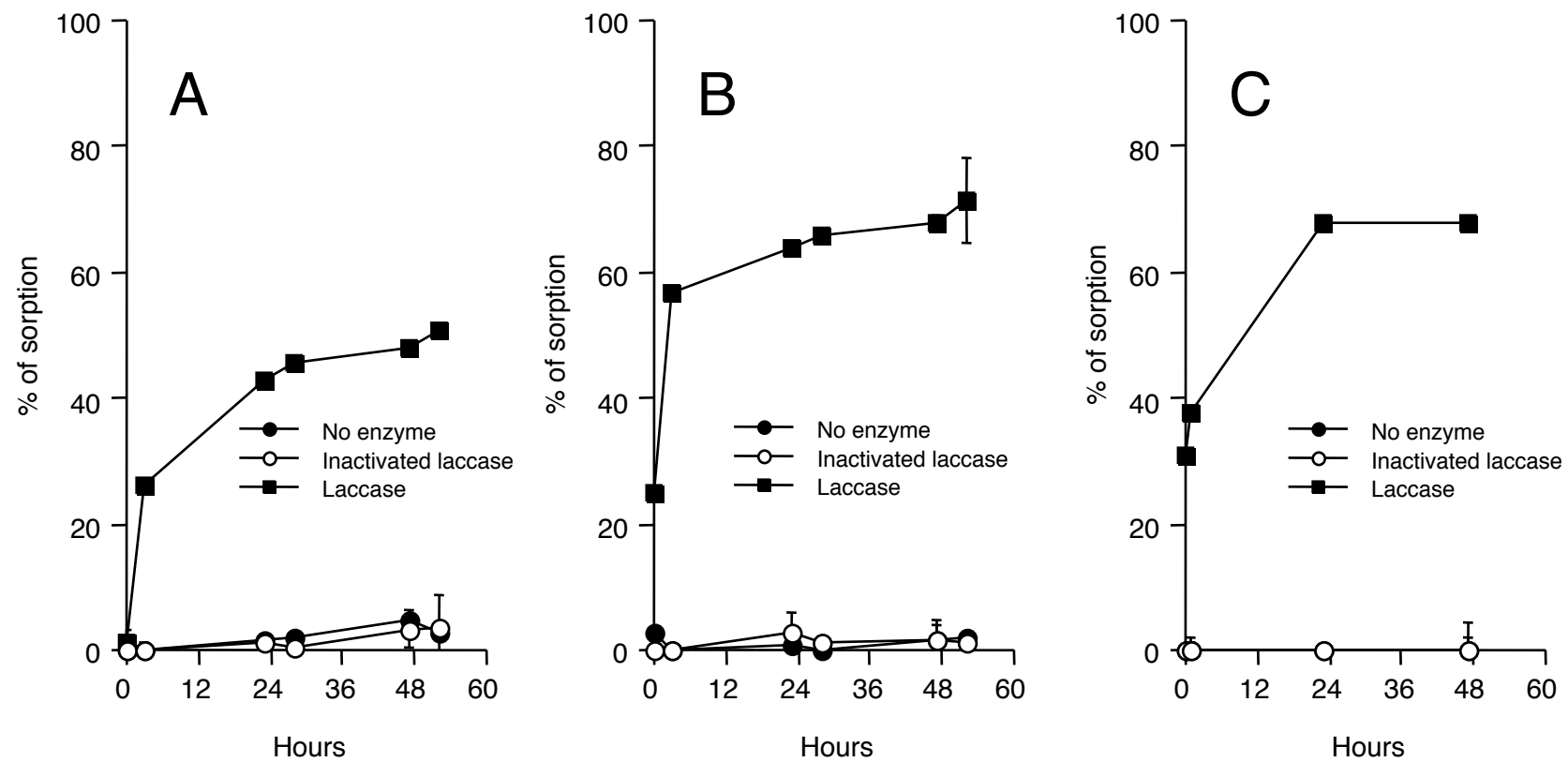


Fig. S2

Figure S2. Restoration of iodide sorption capacity of autoclaved forest soil by bacterial laccase in the presence of 10 μM (A), 100 μM (B), and 1 mM (C) stable iodide. One gram of forest soil was mixed with 10 mL distilled water, autoclaved, and supplemented with stable iodide (KI), 33 Bq of $^{125}\text{I}^-$, and 300 mU of bacterial laccase. Symbols represent the mean values obtained for triplicate determinations, and bars indicate standard deviations.