

**Figure legends:**

Figure 1: The effect of pH on mutants using L-Phe as a substrate. The activity of the enzyme at optimum pH was taken as 100%.

Figure 2: The optimum temperatures for catalyzing L-Phe of mutants. The activity of the enzyme at optimum temperature was taken as 100%.

Figure 3: Effect of temperatures and pH on mutants to catalyze L-Tyr. The activity of the enzyme at optimum pH or temperature was taken as 100%.

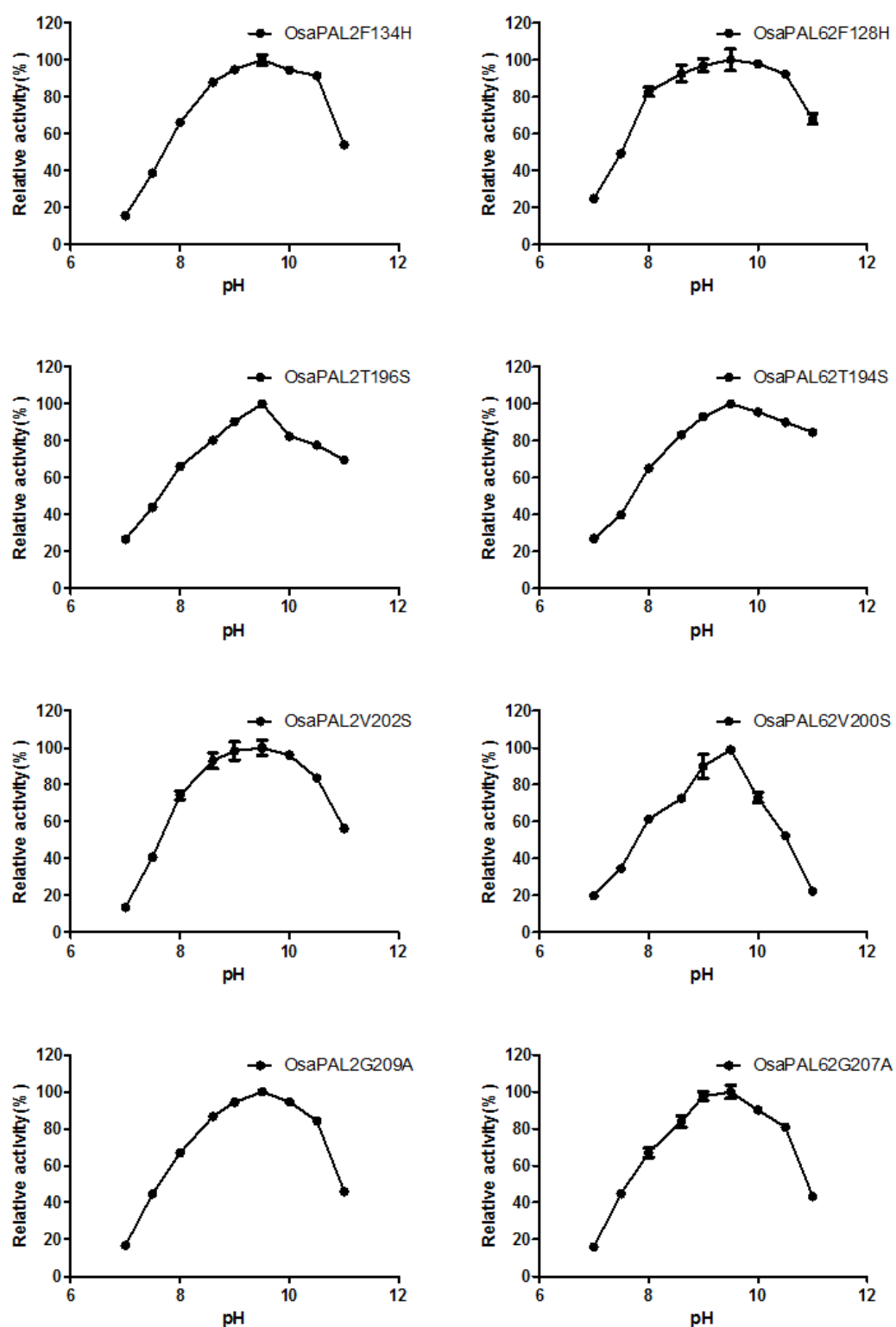


Figure 1

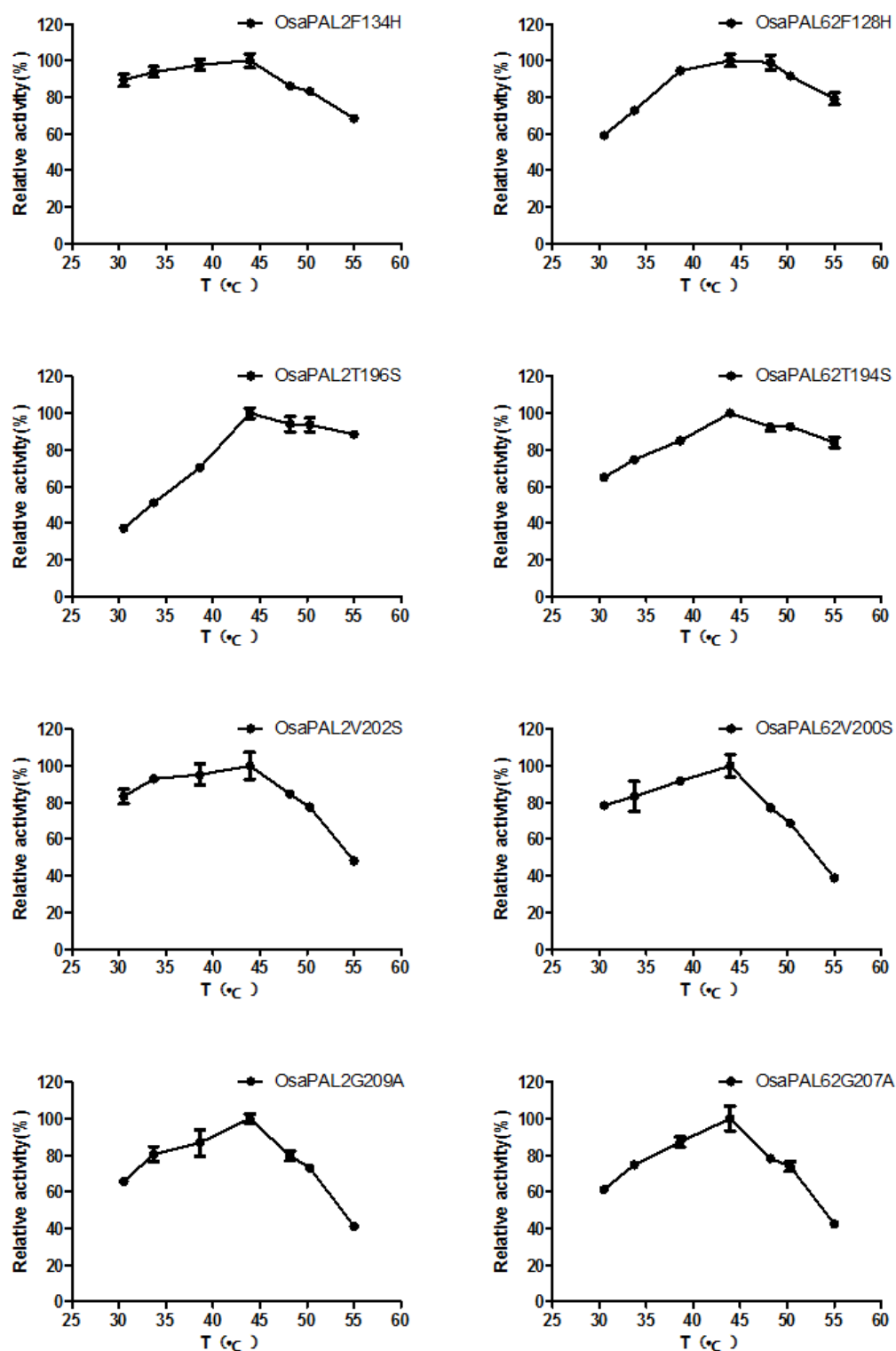


Figure 2

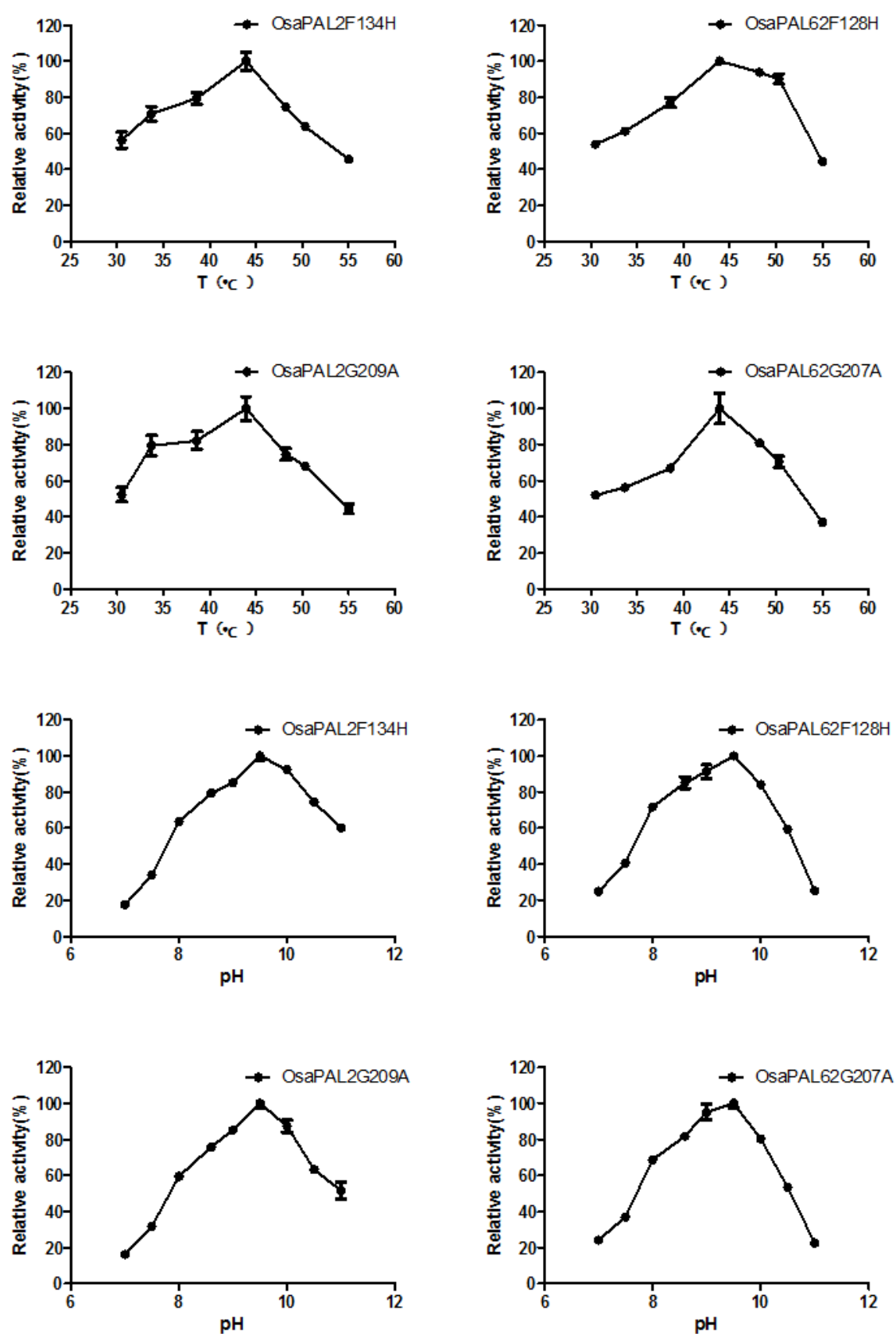


Figure 3