



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Joe K. Debruynkops	Project Number J0505
Project Title The Effects of Food Preservation Methods on the Enzyme Catalase	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project was to determine the effect of different food preservation methods on enzymes.</p> <p>Methods/Materials The experiment's control was fresh potatoes. The 4 variables were frozen, dehydrated, blanched, and boiled potatoes. Each kind of potato was tested 4 times by blending the potato with water and then mixing it in a beaker filled with hydrogen peroxide (H₂O₂). When catalase reacts with hydrogen peroxide it creates oxygen gas, which was measured.</p> <p>Results On average, fresh potatoes produced 10 mL of oxygen gas per 10 seconds whereas frozen potatoes produced only about 3 mL of oxygen gas per 10 seconds and boiled, blanched, and dehydrated produced 0 mL of oxygen gas per 10 seconds.</p> <p>Conclusions/Discussion I also noticed some very interesting trends and connections. In conclusion my potato enzyme lab gave me lots of useful information.</p>	
Summary Statement My project is about measuring the amount of catalase in blanched, boiled, frozen, dehydrated, and fresh potatoes.	
Help Received	