



**CALIFORNIA STATE SCIENCE FAIR  
2006 PROJECT SUMMARY**

<b>Name(s)</b> David P. Shelton	<b>Project Number</b> <b>S0518</b>
<b>Project Title</b> Electrocleaning... Zap!	
<b>Abstract</b> <b>Objectives/Goals</b> I was trying to find out if I could clean a coin preparatory to electroplating by electrocleaning only, and, if so, which of three methods works the best. The methods I tested were electrocleaning in a hot lye bath, in a recommended basic mixture, and anodizing. My hypothesis was that anodizing would work best. <b>Methods/Materials</b> I took three sets of five pennies and cleaned each set with a different method. Then I took out of each set the pennies that looked clean enough for plating. I attempted to plate these as the ultimate test of cleanness. <b>Results</b> Of the pennies cleaned in the lye only 2 were cleaned and plated. From the basic mixture two pennies also were cleaned and plated. One of these pennies plated the best of all the pennies. All of the pennies that were anodized came out looking worse than they did before cleaning. <b>Conclusions/Discussion</b> I concluded that it is not practical to prepare coins for electroplating by electrocleaning only unless the coin is already relatively clean. The results do not support my hypothesis that anodizing would be the best, in fact anodizing failed to work at all.	
<b>Summary Statement</b> I am trying to find a short, effective way to clean coins before electroplating them.	
<b>Help Received</b> Mother typed report from dictation, used lab equipment at school, teacher mixed sulfuric acid solution	