



**CALIFORNIA STATE SCIENCE FAIR  
2014 PROJECT SUMMARY**

<b>Name(s)</b> <b>Hamish S. De La Cruz</b>	<b>Project Number</b> <b>J1009</b>
<b>Project Title</b> <b>Chamber, Photodegradation, Action</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> Reduce HDPE #2 Bags time to photo-degrade and contain HDPE Bags residues.</p> <p><b>Methods/Materials</b> Using the UV Radiation from the Sun as well as heat to photo-degrade HDPE Bags and setting them up in aluminum trays with a glass lid to contain HDPE Bags residues. Materials: HDPE #2 Bags, Aluminum Trays, Duct tape, Aluminum Foil, Cardboard, and Glass Lids.</p> <p><b>Results</b> The chamber materials were able to increase the heat inside the chamber. The UV radiation was reflected all over the chambers as a result of the aluminum foil that was around them. Time for photo-degradation was decreased and HDPE #2 Bags residues were contained and collected from the trays.</p> <p><b>Conclusions/Discussion</b> It was possible to improve the UV radiation, as well as heat (temperature) performance using these chambers. The materials which the trays are made of and the location helped in the success of gaining and maintaining the conditions to photo-degrade and contain the HDPE #2 Bags.</p>	
<b>Summary Statement</b> Reduce and improve HDPE #2 Bags time to photo-degrade and contain the residues using a chamber.	
<b>Help Received</b> Mother helped me email Scientist and people involved in this field. Father helped me with my board.	