



**CALIFORNIA STATE SCIENCE FAIR  
2010 PROJECT SUMMARY**

<b>Name(s)</b> <b>David Agdashian</b>	<b>Project Number</b> <b>S1901</b>
<b>Project Title</b> <b>Lightweight Radioactive Shielding</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of this project is to find the optimal, lightweight, yet effective shield from radioactivity. This material should be light enough to be used in rescue vehicles that the military may use in case of radioactive fallout. <b>Methods/Materials</b> Using a Spechttech 360 Geiger Counter, absorbers of lead, aluminum, steel, kevlar, water, and glass. Radioactive sources of Co60 (gamma), and Sr90 (beta), were used. <b>Results</b> The general curve is that the denser the material is the better a shield it makes. Lead was the best absorber and it was the densest material used. <b>Conclusions/Discussion</b> As far as absorption, lead was the best absorber because it was the most dense. The more the particles or waves need to travel through an absorber, the less strength they will have. However, based on the objective of this project, lead is not light enough to be used in vehicles, it is not practical to use such heavy materials.	
<b>Summary Statement</b> The purpose of this project is to find the optimal, lightweight, yet effective shield from radioactivity.	
<b>Help Received</b> Worked at Seebach Physics and Chemistry lab at Ribet Academy.	