



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

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| Name(s) Divya Nag | Project Number S0707 |
| Project Title Thermal Analysis and Thermogravimetry Techniques to Quantify and Prevent Forest Fires | |
| Abstract Objectives/Goals The objective of this project was to examine the properties of soils around the UC Davis area and to create methods and materials which will aid in the prevention of forest fires. Methods/Materials Materials include the use of machinery such as Differential Scanning Calorimeters, Thermogravimetry and X-Ray Diffraction. Methods of sieving and thermal analysis were performed using these various instruments. Conclusions/Discussion The creation of techniques to analyze forest fire damages on location, the creation of a ratio which will accurately and effortlessly calculate soil organic matter loss in a soil, and a fire-retardant soil. | |
| Summary Statement The creation of a fire-retardant soil to prevent forest fires. | |
| Help Received Used lab equipment at UCD under the supervision of Dr. Ushakov | |