



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Michael J. Fisher	Project Number J0605
Project Title Catch a Falling Star	
Objectives/Goals To investigate methods of collection and identifying micrometeorites. To discover where micrometeorites collect the most; on a rooftop, a treetop, or on the ground.	
Abstract Methods/Materials Place collection pans outside on a rooftop and ground site, leaving the plant on the rooftop area. (To simulate the collection of micrometeorites on treetops) Collect the pans and plant after they have been left outside for 24 hours. Rinse down the sides of the Teflon coated pans with denatured alcohol. Move a filter paper coated magnet through the alcohol in the pan and collect metal particles that are magnetic. (All micrometeorites are magnetic, and by performing this procedure, there will be less debris to look through to discover the micrometeorites.) Allow the filter paper time to dry. and cut it up into a size that will fit on a microscope slide. Carefully examine the filter paper at 100x and 400x powers under the microscope. Identify any micrometeorites and other forms of debris left in the paper. The micrometeorites are identifiable by their perfectly spherical shape. Notice and record the other debris left on the filter paper, to discover what percentage of the metallic particles were really micrometeorites. Repeat the entire process 5 times for each of the three testing sites. Compare the results.	
Results The ground testing site collected the most amount of particles of the three testing sites	
Conclusions/Discussion The ground site collected the largest amount of micrometeorites because it had more sources for the particles to come from. I believe that the micrometeorites cascaded off the drip line of a large oak tree, into the ground site pan. Also, the micrometeorites fell off of the slant of my house, into the pan. The tree and the house acted like a funnel, sending all of the micrometeorites that they collected onto the ground testing site. I was surprised to see that the tree and the house together made a larger collection area for the pan on the ground, instead of blocking the ground site, as I had hypothesized.	
Summary Statement This project compared different locations for collecting micrometeorites.	
Help Received My dad instructed me on how to use the microscope, which was loaned to me by my school science department.	