## Apples and Oranges -- A Comparison

by Scott A. Sandford, NASA Ames Research Center, Mountain View, California

We have all been present at discussions (or arguments) in which one of the combatants attempts to clarify or strengthen a point by comparing the subject at hand with another item or situation more familiar to the audience or opponent. More often than not, this stratagem instantly results in the protest that "you're comparing apples and oranges!" This is generally perceived as being a telling blow to the analogy, since it is generally understood that apples and oranges cannot be compared. However, after being the recipient of just such an accusation, it occurred to me that there are several problems with dismissing analogies with the comparing apples and oranges defense.
First, the statement that something is like comparing apples and oranges is a kind of analogy itself. That is, denigrating an analogy by accusing it of comparing apples and oranges is, in and of itself, comparing apples and oranges. More importantly, it is not difficult to demonstrate that apples and oranges can, in fact, be compared (see figure 1).


Figure 1. Granny Smith Apple and Sunkist Orange

## Materials and Methods

Both samples were prepared by gently desiccating them in a convection oven at low temperature over the course of several days. The dried samples were then mixed with potassium bromide and ground in a small ball-bearing mill for two minutes.


Figure. 2

## Conclusions

Not only was this comparison easy to make, but it is apparent from the figure that apples and oranges are very similar. Thus, it would appear that the comparing apples and oranges defense should no longer be considered valid. This is a somewhat surprising revelation. It can be anticipated to have a dramatic effect on the strategies used in arguments and discussions in the future.

