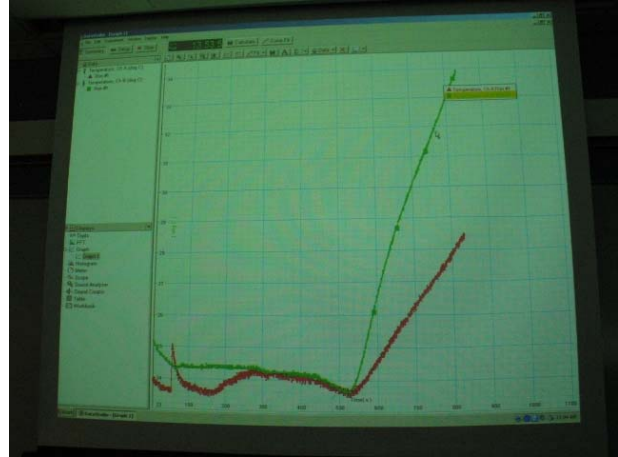


Radiant Heating and Cooling



Purpose: To demonstrate that a black can is a better absorber and emitter of radiation than a shiny can

Location: room 136, shelf P2

To make this demo more visible to students, it is recommended that the front desk be moved next to the podium and the temperature sensors connected to the 500 interface on the podium. The temperature readings can then be displayed on the screen using the ceiling projector. As soon as the yellow lamp is turned on it will become evident that the black can is heating faster and therefore must be absorbing radiant energy faster than the shiny can.

The black can is also a better emitter of radiant energy as can be demonstrated by filling both cans with hot water and watching their cooling graphs. (This takes more time.)