Speed ups

◆ **Hazy 1, Sec 19.17**

```
#
stop zone 100
blackbody 4e4 K
ionization -2
hden 4
save overview "speed.ovr"
*****************
```

"Element" family of commands

◆ **Controls particular elements**

7.7   Element name [scale, abundance, isotopes, off, log, table]

This sets the abundance of a particular element. The command has several keywords that change the behavior of the command.

7.7.6   Element name off

If the keyword **off** appears (note the leading space) then the element is not included in the calculation. The ionization equilibrium, opacity, and cooling due to the element will not be computed. The abundance must still be specified when the **abundances** command is used unless the element is excluded with the **elements read** command.

Change number of lines

◆ **By default we use a small fraction of the total lines**
  – Increase or decrease number to change fidelity of simulation and its speed
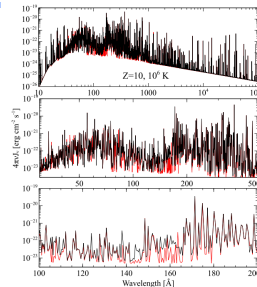◆ **Database "name" levels**

Fig. 23. The spectrum of a $10Z_\odot$ plasma using our default (red) and large database (black). The top panel shows the full emission and each panel below it is a zoom into smaller regions of spectrum. The color figure can be viewed online.