

SPECTRAL CLASSIFICATION

Originally, spectral classification ordered stars by their hydrogen content. Stars with the most prominent Hydrogen lines were characterized as “A” type stars, etc.

With time, astronomers decided it was more useful to identify stars by their surface temperature.

To do this, they simply rearranged the letters of the old system into a new system.

Originally, there were seven levels--O, B, A, F, G, K and M. Recently, two other levels were added to accommodate brown dwarf that cannot fuse hydrogen but can fuse deuterium. Those last two were dubbed L and T.

(The pneumonic that is often used to remember these is, “Oh, Be A Fine Girl, Kiss Me Liv Tyler.”)

The temperature ranges are:

“O” at 30,000 degrees K

“B” at 20,000 degrees K

“A” at 10,000 degrees K

“F” at 7,000 degrees K

“G” at 6,000 degrees K

“K” at 4,000 degrees K

“M” at 3,000 degrees K

“L” at 2,000 degrees K

“T” at 1,000 degrees K

The classification is further scaled from 0 to 9 with the lower numbers corresponding to hotter stars

The sun is a 5800 degree star and is rated at “G2.”