rd_mmod

Extracts a model atmosphere from the MARCS theoretical grid, available online at `http:marcs.astro.uu.se`.

Syntax

RD_MMOD,teff,logg,metal,model,header,tail

Return Value

RD_MMOD stores the MARCS model into a (7,56) array

Arguments

teff - (float) Effective tempereature (K)

logg - (float) log10 of the surface gravity (g in cm/s/s)

metal - (float) [M/H] overall metallicity relative to solar

model - (string) Name for the output model atmosphere array

header - (strarr) Array of strings containing the header of the MARCS model file

tail - (starr) Array of strings containin the tail of the MARCS model file

Keywords

* None.

References

Gustafsson, B., Edvardsson, B., Eriksson, K., et al. 2008, A&A, 486, 951

Mészáros, Sz., Allende Prieto, C. 2012, in preparation (on the linear interpolation of model atmospheres and fluxes)

Example

To extract a Teff=5750 K, logg=4.0 and solar metallicity model:

IDL> rd_mmod,5750.,4.0,0.0,model

Version History

C. Allende Prieto, UT, initial version coded in 1999 (rd_kmod)

Bug fixed in 2005 (rd_kmod)

I. Ramírez, rd_mmod coded at Carnegie Observatories in 2010