

Short talk

**HEIGHTS OF FORMATION OF Mn I SPECTRAL LINES
BROADENED BY HYPERFINE STRUCTURE**

NIKOLA VITAS

*Dept. of Astronomy, Faculty of Mathematics, Belgrade
Studentski trg 16, 11000 Belgrade, Serbia and Montenegro
E-mail: nikola@matf.bg.ac.yu*

This paper considers the influence of hyperfine broadening on heights of formation of some Mn I spectral lines in Solar spectrum. The comprehensive model atom of neutral manganese is constructed with 64 bound energy levels and continuum and 161 bound-bound transitions. Results of spectrum synthesis for this model and atmospheric models for quiet Sun and plage (Fontenla et al, 1999) are obtained by using program MULTI (Carlsson, 1986). It is shown that pronounced hyperfine structure decreases the height of formation and narrows down the line formation region.

References

- Carlsson, M.: 1986, A Computer Program for Solving Multi-Level Non-LTE Radiative Transfer Problems in Moving or Static Atmospheres, Report No. 33, Uppsala Astronomical Observatory.
Fontenla, J.M., White, O.R., Fox, P.A., Avrett, E.H. and Kurucz, R.L.: 1999, *ApJ*, **519**, 480.

Short talk

HELIUM LINE SHAPE ANALYSIS IN B TYPE STARS

MILAN ZBORIL

*Astronomical Institute, Tatranska Lomnica, 059 60, Slovakia
E-mail: zboril@astro.sk*

A number of He-rich stars and (vsini) standards were observed aiming at disentangling the rotational velocities, helium abundance and its age dependence. The line shape analysis and search for vertical helium stratification in the stellar atmosphere are presented.