

SUPERGIANT STARS AS TRACERS OF GALACTIC CHEMICAL COMPOSITION

A ARELLANO FERRO AND L PARRAO
Instituto de Astronomia, UNAM, Mexico

AND

L MANTEGAZZA
Dip. di Fisica Nucleare e Teorica, Universita di Pavia, Italia

A photometric reddening-free calibration for $[\text{Fe}/\text{H}]$ valid for giant and supergiant stars of intermediate temperature, has been obtained using the Strömgen $uvby\beta$ system. Galactic supergiants, supergiants in Magellanic Clouds and galactic metal deficient red giants with spectroscopic determinations of $[\text{Fe}/\text{H}]$ were used as calibrators. The calibration can be used to predict $[\text{Fe}/\text{H}]$ with an accuracy of 0.33 dex and shows the potential of supergiant stars as tracers of iron abundances in other galaxies.