Classification of Herbig Ae/Be Stars by Spectroscopic Observations

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Both T Tauri Stars and Herbig Ae/Be Stars are pre-main-sequence stars and it is known that T Tauri Stars are classified into two types based on their 10 Å equivalent width of Hα emission lines. However, there has been no classification of Herbig Ae/Be Stars based on their emission line. We set our goal to determine the standard value and classify Herbig Ae/Be Stars according to their equivalent width of Hα emission lines.
First, the spectrum chart of Herbig Ae/Be Stars were collected from observations at Bisei Astronomical Observatory and from the European Southern Observatory website. After that, the stars' equivalent width of the Hα emission line were calculated using "Microsoft Excel".
We discussed about the standard value which classify the HerbigAe/Be Stars from three different viewpoints. As a result, the standard was concluded to be 25 Å equivalent width.
This work may prove useful for future research into pre-main-sequence stars.

Keywords: Pre-main-sequence Star, T Tauri Star, Equivalent Width

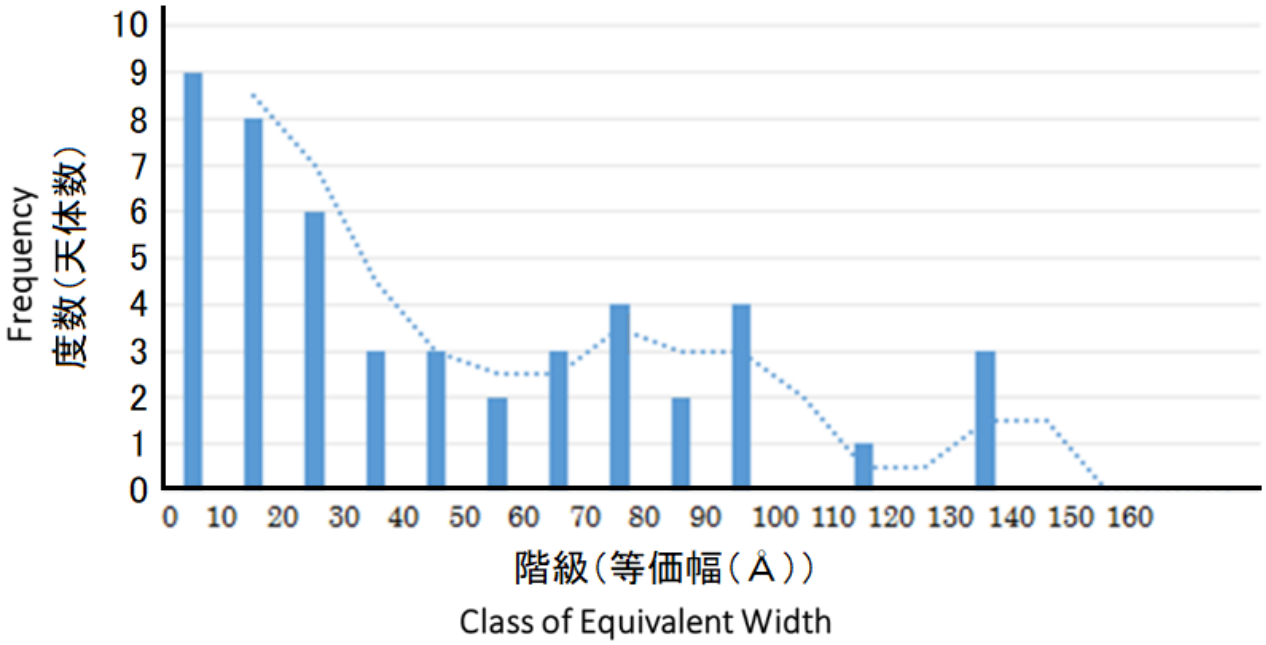

図　ハービッグAe/Be型星のHα輝線の等価幅の分布

Fig. Histogram about Equivalent width of HerbigAe/Be Stars

