

K14b **SN progenitor mass and metallicity constraints from IFU spectroscopy**

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Using UH88/SNIFS and Gemini/GMOS integral field spectrographs, IFU spectroscopy of 27 supernova explosion sites in nearby galaxies has been obtained. IFU spectroscopy enables us to perform spatial and spectroscopic study of the stellar populations present at the explosion sites. The physical properties of the parent stellar population of the SN progenitor star were derived from the spectrum. Metallicity was obtained via strong-line method, and age was derived by comparison with simple stellar population (SSP) models. This in turn gives the age and metallicity estimate for the coeval SN progenitor. Adopting the age as the SN progenitor stellar lifetime, the initial mass of the SN progenitor was inferred from comparison with stellar evolution models. Having progenitor age and metallicity information, we compare our observation with theoretical predictions. We found indication that SNe Ib/c may have been produced by both single and binary progenitors, and some SN II progenitors may have been as massive as the single Ib/c progenitors.