

# Nuclear/element production by supernovae, measured by X-ray spectra

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This work aims to correct/measure the elemental abundance found in supernova remnants. XSPEC, the most widely used program for measuring elemental abundances from X-ray spectra, uses a fixed value (solar abundance) for the hydrogen and helium abundances. This is a reasonable approximation in hydrogen-rich portions of a supernova remnant such as the forward shock. However, this assumption is invalid for the hydrogen-deficient or heavy-element-dense regions of supernova remnants such as the ejecta. This project uses updated modeling techniques that do not assume solar abundance to correct the elemental abundances in the ejecta of supernova remnants. We have found the corrected abundance for 5 supernova remnants, with plans to expand the scope to as many supernova remnants as possible.

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