

**STUDY OF SUPERNOVA REMNANT N206**

**IN THE X-RAY SPECTRUM**

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Supernovae are the most energetic explosions since the Big Bang. This, combined with their role in stellar evolution makes them important to study. Supernova remnant (SNR) N206 was chosen for study due to its involvement in the evolution of the N206 region. Stellar evolution was researched extensively to enable a better understanding of supernovae, their remnants, and the role they play in stellar evolution. SNR N206 is being studied through x-ray spectra obtained from the *Chandra* *X-ray Observatory*. This data was processed through various models in *XSPEC*. The results from these models were used to determine various details about N206, and elemental abundances of N206’s ejecta. The *sedov* model in *XSPEC* was applied to the outer shell to obtain the initial energy of supernova explosion, age, and swept up mass of N206. These results are 2.46x1044 Joules, 14600 years, and 527Mʘ respectively. In addition elemental abundances of the ejecta were determined using *vnei* and *vpshock* models. These results show enhanced oxygen abundances which indicate a Type II supernova. However, due to high variability of results from these models further research is required to state these results with confidence.