

Experimental measurement of $^{16}\text{O}+^{12}\text{C}$ fusion at stellar energies

Xiao Fang, Graduate Student, University of Notre Dame

The total cross section of $^{12}\text{C}+^{16}\text{O}$ fusion has been determined by applying the statistical model calculation to experimental data. Both emitted protons and γ -ray from this reaction were measured simultaneously for c.m. energies from 3.64 to 4.93 MeV by using silicon and Ge detectors with high-intensity beam from the Santa Ana 5MV accelerator at University of Notre Dame. By comparing statistical model and data of measurement, the clear correlation between them was observed. It results in more reliable extrapolation of the total $^{12}\text{C}+^{16}\text{O}$ fusion cross section for stellar nucleosynthesis.

Monday

May 11

4 P.M.

Rm 124 NSH

Refreshments
served prior to
the seminar in
Rm 124.