
Direct Measurements Using Stable Beams

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Many stellar burning phases are dominated by thermonuclear reactions involving stable nuclei. Prominent examples include hydrostatic hydrogen and helium burning in low-mass stars, massive stars, and thermally pulsing asymptotic giant branch stars. The nuclear reaction cross sections involved are very small and thus successful measurements require sophisticated equipment and data analysis techniques. This talk provides an overview of recent experimental improvements. Implications for globular clusters, presolar grains, and galactic radioactivity will be discussed.