

^7Be electron and proton capture in astrophysical conditions.

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^7Be plays an important role in several astrophysical scenarios. In stellar hydrogen burning, the competition of its proton and electron captures determines the high-energy component of the solar neutrino spectrum. In BBN, its ultimate abundance determines the amount of ^7Li observed in primordial matter. Its $^3\text{He}(^4\text{He}, \gamma)^7\text{Be}$ and $^7\text{Be}(p, \gamma)^8\text{B}$ production and destruction processes have been studied by the ERNA collaboration using a recoil mass separator. Recently, a new project was initiated to study the electron capture decay of ^7Be in different charge states for the first time under controlled conditions.

A review of this topic will be presented, with illustrations of recent experiments.

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