

12C+12C Reaction and Type Ia Supernovae

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Recently, low-energy cross sections of the 12C+12C reaction are investigated both experimentally and theoretically. Such studies are motivated not only by nuclear physics but also by astrophysics because the reaction plays important roles in various astrophysical sites such as type Ia supernovae (SNe Ia), x-ray (super)bursts, and stellar evolution. In this talk, I review previous studies on the sensitivity of SN Ia ignition on 12C+12C reaction and discuss possible collaboration with nuclear physicists.

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