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Radiative association of a carbon atom and a proton via triplet molecular states[1] J. F. BABB, ITAMP, Harvard-Smithsonian CfA, B. M. MCLAUGHLIN, Queen's U. Belfast — Collisions between a ground state C atom and H^+ along triplet molecular states with photon emission leading to a bound CH+ molecular ion (radiative association process) are studied theoretically. Cross sections and rate coefficients are calculated. The present results are compared to those for collisions of C and H^+ leading to C^+ and H with photon emission (radiative charge transfer process) along triplet molecular states and to those for radiative association of a carbon ion and a hydrogen atom along the singlet molecular state. We investigate the photon emission spectra and discuss possible astrophysical applications

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