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Studying the triple - α reaction in hyperspherical harmonic approach NGOC NGUYEN, FILOMENA NUNES, National Superconductiong Cyclotron Laboratory, Michigan State University — The triple- α reaction is studied by using hyperspherical harmonic (HH) method [1]. Starting from three body model, we determine the 2⁺ state and the 0⁺ resonance as well as the quadrupole strength function B(E2). The triple- α reaction rate are calculated. We also carefully consider the contributions of the nonresonant continuum states to the reaction rate at low temperature ($T \leq 10^8 K$). The results are compared with [2,3].

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