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## Clustering in <sup>16</sup>O investigated with <sup>3</sup>He+<sup>13</sup>C collisions

We investigate the occurrence of  $\alpha$  clustered states in <sup>16</sup>O at high excitation energies by analyzing <sup>3</sup>He + <sup>13</sup>C reactions in the 1.4 - 2.2 MeV energy range. We produce refined angular distributions of the differential cross section in absolute units, allowing us to investigate the competition between the  $\alpha$  decays leading to <sup>12</sup>C in the Hoyle state and those leading to the ground state. The Hoyle branching ratio turns out to be larger than that predicted by theoretical calculations based on barrier penetration models, suggesting the existence of states with large cluster components in the parent nucleus.

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