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Coupled-channel studies of nucleon-scattering from oxygen isotopes

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Abstract content
   (Max 300 words)
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The Multi-Channel Algebraic Scattering (MCAS) method for the description of nucleon-nucleus scattering has been used with a (collective) rotational model of structure describing the target. The success of that model, when incorporating the Pauli Principle in the interactions describing the scattering and the formation of the compound systems, has been quite good. We extend that method to include the vibrational model in describing the target states, and apply the method to the scattering of low-energy nucleons from oxygen isotopes. Results for nucleon scattering from 16O, leading to states in the compound nuclei 17O and 17F, will be reported, as will preliminary results for nucleon scattering from 18O.

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