# THEORETICAL ANALYSIS OF RESONANCE STATES IN $^4$H, $^4$He, AND $^4$Li ABOVE THREE-CLUSTER THRESHOLD

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S u m m a r y

The resonance states of $^4$H, $^4$He, and $^4$Li embedded in the three-cluster $d + N + N$ continuum are investigated within a three-cluster model. The model treats the Pauli principle exactly and incorporates the Faddeev components for a proper description of the boundary conditions for the two- and three-body continua. The hyperspherical harmonics are used to distinguish and enumerate channels of the three-cluster continuum. It is shown that the effective barrier created by the three-cluster configuration $d + N + N$ is strong enough to accommodate two resonance states.