

New Hidden beauty molecules predicted by the local hidden gauge approach and heavy quark spin symmetry

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Using a coupled channel unitary approach, combining the heavy quark spin symmetry and the dynamics of the local hidden gauge, we investigate the meson-meson interaction with hidden beauty and obtain several new states. Both $I=0$ and $I=1$ states are analyzed and it is shown that in the $I=1$ sector, the interactions are too weak to create any bound states within our framework. In total, we predict with confidence the existence of 6 bound states, and weakly bound 6 more possible states. The existence of these weakly bound states depend on the influence of the coupled channel effects.

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