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Dimesonic states with the Hellmann Potential

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We have studied the dimesonic (meson-antimeson) loosely bound states with heavy flavor meson combination. We have applied the potential model approach to extract the mass spectra and various decay properties of the dimesonic system. Our loosely bound system approximated as of deuteron-like system. The Hellmann potential of the form $V(r_{12}) = \frac{-K_{mol}}{r_{12}} + B \frac{e^{-cr_{12}}}{r_{12}}$ is being used for the binding of the system with the One Pion Exchange Potential for long range tail. We try to explain spectroscopy of the famous and controversial X Y Z states with the molecular dimesonic combinations.

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