Abstract Submitted
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Three body charmed nuclei . SHALVA TSIKLAURI, The City University of New York-BMCC — We study the $\Lambda_c NN$ three-body system by using the $\Lambda_c N$effective potential [1] within the method of hyperspherical functions (HF) in momentum representation, using realistic NN local potentials. We solve nonrelativistic three-body Schrodinger equation in the framework of the method of HF [2] to find a ground state binding energy and corresponding wave function for the bound states with $J = 1/2$ and $3/2$. The bound states energies are obtained for I=0: -21.07 MeV ($\Lambda_c np$, $J\ \pi = 1/2^+$) and -21.74 MeV ($\Lambda_c np$, $J_\pi = 3/2+$), for I =1: -9.80 MeV ($\Lambda_c nn$, $J_\pi = 1/2^+$) , -8.74 MeV ($\Lambda_c np$, $J_\pi = 1/2+$), -6.82 MeV ($\Lambda_c pp$, $J_\pi = 1/2+$), which are in good agreement with previous results obtained for the same potentials using variational method.

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