

Abstract Submitted
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Three body Schrödinger equation for the Kratzer pair interaction SHALVA TSIKLAURI, NYEISHA BRATHWAITE, City University of New York, Borough of Manhattan CC — Two dimensional solution of the three body Schrödinger equation for the Kratzer potential with and without the presence of a constant harmonic confinement is investigated within the using the hyperspherical functions method. For strong confinement the energy eigenvalues are analytically obtained. However, in the presence of a confinement, the energy eigenvalues are calculated numerically using the same method. The results obtained by using different strength of confinement and potential parameters are compared with the results of the absence of the trap ($\omega = 0$). Effect of the confinement on the energy eigenvalues of the Kratzer potential is precisely presented.

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