

The coefficients of new analytical forms through Laguerre functions for the deuteron wave function in coordinate space for NijmI, NijmII, Nijm93, Reid93 and Argonne v18 potentials have been numerically calculated. The obtained wave functions do not contain any superfluous knots. The designed parameters of the deuteron are in good agreement with the experimental and theoretical data. The tensor polarization t_{20} calculated based on the wave functions is proportionate to the earlier published results