

## WEAKLY BOUND PARTICLE IN THE ELECTRIC FIELD OF A NUCLEUS

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The closed expression for the internal wave function of a weakly bound particle in the external electric field has been obtained. The approximate analytical representation of the function is found. It is shown that the internal stationary state of a weakly bound particle in the electrical field of a heavy nucleus is transformed in a quasi-stationary one (the particle may polarize or break up). It leads to a significant distortion of internal wave functions. It has been shown that the spherical symmetry of this function fails as the particle comes to the force source. The wave function calculations for d,  ${}^6\text{He}$ , and  ${}^{11}\text{Li}$  ions in the electric field of  ${}^{208}\text{Pb}$  nucleus are fulfilled.