THE TIME ANALYSIS OF MULTIPLE INTERNAL REFLECTIONS IN TUNNELING DESCRIPTION THROUGH THE BARRIER

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The problem of scattering of a nonrelativistic particle on a nucleus is considered, the interaction potential between which has a spherically symmetrical view. As the further development of the time analysis of processes of tunneling the non-stationary method of the solution of a problem is represented, due to which begins the possibility to describe in a time dependence the propagation (tunneling) of a particle and in details to study this process in an interesting instant or concerning a concrete point of space. At calculating the time parameters the method has shown itself simple and convenient. At finding the expressions for stationary wave functions for problems with an interaction potential, which radial part has more composite view than rectangular, this method is more effective than reference stationary approaches.