# EVALUATION OF THE TEMPORARY CHARACTERISTICS AND THE NUMBER OF THE STEPS OF THE GAMMA-ABSORPTION AND GAMMA-EMISSIONS OF THE RADIOACTIVE NUCLEI IN THEIR DECAY PROCESS

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Quantum-mechanical method, which was proposed earlier for the theoretical description of the resonance scattering of the γ-quantum, was generalizing with Doppler effect usase. New algorithm elaborated and equations for the definition of the characteristic functions for the energy distribution, decay probability and decay functions obtained. The calculations have been performed for the concrete case of decay exited nuclei $^{14}C$ , $^{40}K$, $^{87}Rb$, $^{238}U$ and $^{232}Th$ under room temperature taking into account Doppler's effect and without it.