

ATOMIC SHELL IONIZATION AND e^+e^- -PAIRS CREATION AT THE FINITE NUCLEAR TEMPERATURES

V. M. Kolomietz, S. N. Fedotkin

General expressions for the probabilities of the atomic shell ionization and e^+e^- -pairs creation at the “heated” nuclei are found. The spectral distributions of the positrons and conversion electrons are investigated in the case of the nuclear $E1$ -transitions. The temperature dependent conversion coefficients for these processes are obtained.

Keywords: ionization, atomic shell, e^+e^- -pairs, nuclei.