ANNIHILATION OF POSITRONS, EMITTED AT β⁺-DECAY WITH ELECTRONS OF THE DAUGHTER'S ATOM

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The processes of photon creation or atom ionization during annihilation of positron with other electron of daughter's atom at β⁺-decay are considered. The estimations for the probability of one photon annihilation emitted in the process β⁺-decay of positron with K-electron of daughter's atom are obtained. Process of atomic shell ionization during annihilation of positron, emitted at β⁺-decay, with K-electron of daughter's atom is considered. Ratio of probabilities of these processes to the probability of ordinary β⁺-decay is found.

Keywords: annihilation, β⁺-decay, atomic shell, K-electron.