# BETA-DECAY RATES OF SHORT-LIVED NEUTRON-RICH NUCLEI, INVOLVED INTO THE R-PROCESS

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Beta-decay rate is one of the main nuclear parameters of neutron-rich nuclei. It is very important for astrophysical r-process nucleosynthesis. For beta-decay rates predictions for neutron-rich nuclei models of beta strength-function are usually used [1,2]. In this work for the beta-decay rates calculations we used the beta-strength function model in which strength-function was derived in the framework of quasiclassical approach, based on the finite Fermi-systems theory. On the basis of the model the consequent calculations of neutron emission and beta-delayd fission probabilities were derived recently for actinides [3]. The consistent calculations of beta-dacy rates based on the same model are needed for predictions of heavy and superheavy abundances in the r-process nucleosynthesis. New calculations became actual when it was shown [4] that the values of beta-decay rates strongly depend on abundances of rare earth elements, forming in nucleosintesys in very high neutron environment.

The compare of preditions with experimental data and utilization of uptodate atomic mass preditions [5] let us correct the parameters of the model for extended calculations of beta-rates for the region of actinides, involved into the r-process.

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