GEANT4 background radiation simulation for RISING experimental set-up

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In experiments with relativistic heavy ions high level of background radiation is observed. A model to simulate the background within GEANT4 has been developed in order to evaluate the sources of background and its influence on the experimental spectra. New classes have been added to the standard GEANT4, which include the processes responsible for the background radiation. Simulations of experiments from RISING isomer campaign and the comparison with the experimental results will be discussed.