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$J/\psi \rightarrow e+e^-$ decays selection criteria with TRD in CBM experiment

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Currently the CBM experiment is being developed in GSI (Darmstadt, Germany) at the FAIR accelerator complex of an international collaboration with JINR. One of the main aims of the experiment is the study of charmonium production in nuclear-nuclear collisions at high energies. The key task in this problem is fast and reliable electron-positron identification using the energy losses of charged particles in the Transition Radiation Detector (TRD). The current paper presents effective algorithm of the trajectories reconstruction in TRD based on the Cellular Automaton model. The comparison of the different electron identification methods is also given.

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