

Top quark flavor-changing neutral current interactions are extremely forbidden in the SM framework because of the GIM mechanisms. The SM predictions for branching ratios of the top quark decay into a photon, Z-boson or a Higgs boson and an up-type quark are at the order of 10^{14} . However, several extensions of the SM can enhance the branching ratios by a factor of 10^{8-9} depending on the model. Therefore, precise measurement of these branching ratios provide an excellent possibility to probe the extensions of SM in the top quark sector. We will present the LHC and the Future Circular Collider (FCC) potential to probe FCNC processes.