

**SUMMARY**  
**IN SCIENTIFIC RESEARCH PRACTICE**  
**STUDENT 5 COURSES, FMF, GROUP OF-81MP,**  
**NATIONAL TECHNICAL UNIVERSITY OF UKRAINE “IGOR SIKORSKY KYIV**  
**POLYTECHNIC INSTITUTE”**

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***On the theme:*** “Generating single photons state in superconducting circuit”

***Scientific supervisor:*** D. Ph-M.S., Professor O.M. Brodyn

***Relevance:*** Generating single photons have widespread use in classical communication technologies: from long-distance broadcasts to short-distance signals within a computer chip.

***Problem review:*** description photon’s motion in the system ‘atom ’+ ‘resonator’ + ‘waveguide’, control of connection parameters and signal locking.

***Solutions to the problem:*** to investigate the dependence of generating single photons state by using superconducting cubit posted in capacitive resonator connected to waveguide.

***Results and conclusions:*** show that it is possible to control the parameters of connection of simple photon’s state for the transmission line.

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