



Ladies and gentlemen!

My name is Victor Andrianov.

I represent here a group from Moscow which works in the field of STJ detectors about ten years. You can see the members of the group and the main points of the present work on the first transparency.

I would like to draw your attention to the fact that Ti sublayer allows to produce Nb/Al STJs of sufficiently high quality and acts as efficient quasiparticle trap.

On the next transparency you can see examples of pulse height spectra arising under irradiation with ^{55}Fe source measured at $T = 1.35$ K. The energy resolution of 78 eV (figure a) and 8-fold reduction of the bottom electrode signal (fig. b) is observed.

Let me invite you to our poster J08 for further discussion.

Thank you for your attention.

J08



STJ X-Ray Detectors with Titanium sublayer

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Ti sublayer is the lowest film in the structure.

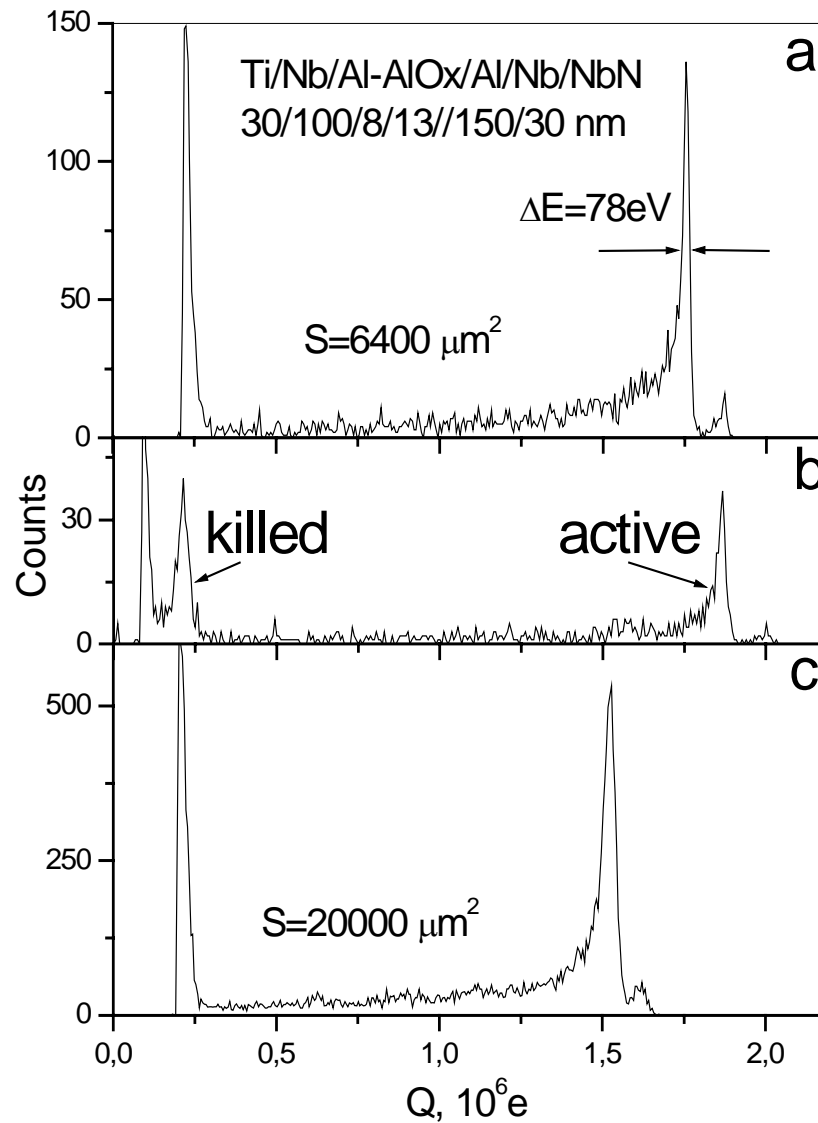
It does not worsen the microstructure of the following layers.

It serves to inactivate the bottom electrode of the STJ.

It ensures the 8-fold reduction of the collected charge in comparison with the active top electrode.

Experimental energy resolution for active electrode

is 78 eV FWHM for 5.9 keV line at T=1.34 K.



Pulse height spectra of $6400 \mu\text{m}^2$ and $20000 \mu\text{m}^2$ STJ detectors with Ti/Nb killed bottom electrode. $T = 1.35 \text{ K}$. ^{55}Fe source.