New data on excited states in very neutron rich nickel isotopes

SHINTARO GO, ROBERT GRZYWACZ, KAROLINA KOLOS, MOHAMMAD ALSHUDIFAT, STEVEN TAYLOR, YONGCHI XIAO, UTK, CARL GROSS, JON BATCHELDER, KRZYSZTOF RYKACZEWSKI, ORNL, CHIARA MAZZOCCHI, AGNIESZKA KORGUL, ALEKSANDRA LIS, University of Warsaw, MUSTAFA RAJABARI, TRIUMF, STANLEY PAULAUSKAS, SEAN LIDDICK, CHRISTOPHER PROKOP, THOMAS BAUMANN, TOM GINTER, NSCL — The vicinity of $^{78}$Ni still remains elusive. Several experimental studies show evidence that $^{78}$Ni is a doubly magic nucleus, but deformed phenomena have been reported in this region. Spectroscopic studies around the region are of interest to clarify the shell evolution toward $^{78}$Ni. Beta decay studies of neutron-rich Co isotopes have been performed at the NSCL. The isotopes were produced in the fragmentation of the 140 MeV/u $^{82}$Se beam. These isotopes were implanted in a planar Germanium DSSD. The measurement of gamma-rays using clover detectors revealed excited states in neutron-rich Ni isotopes at high excitation energies. Preliminary results will be presented.