**Recent Experimental Results of Coherent THz Sources Driven by NSRRC High Brightness Photo-injector**

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Accelerator-based coherent THz radiation sources are being studied with the NSRRC high brightness photoinjector which has been installed in the Accelerator Test Area (ATA) recently. This injector is equipped with a laser-driven photocathode rf gun and a 5.2-m long S-band traveling-wave linac for beam acceleration. A few tens MeV, ultrashort bunches of ~100 fs bunch length can be produced from the injector by velocity bunching technique. Tunable narrow-band THz coherent undulator radiation (CUR) can be generated from a U100 planar undulator when it is driven by such beam. The THz CUR energy at the exit of the undulator chamber is 18.4 μJ under the electron charge of 280 pC. One the other hand, broadband THz coherent transition radiation (CTR) generated by passing this beam through a metallic foil is used for determination of bunch length by autocorrelation technique. Currently the electron bunch length is measured to be 490 fs due to insufficient linac field. However, the results show that electron bunches in the linac can be accelerated and compressed simultaneously by velocity bunching.