

Inserion Device Effects on Beam Dynamics at SRRC, H.P. CHANG, J. CHEN, K.T. HSU, C.C. KUO, CH. WANG, SRRC, Hsinchu, Taiwan, R.O.C. - Two insertion devices, namely W20 wiggler and U10 undulator, have been installed in the storage ring TLS at SRRC. The perturbation on the linear and non-linear beam dynamics due to these insertion devices in the ring were measured. Those include the tune shift and beta beating induced from vertical focusing of the fields, the orbit distortions due to field errors and the change of lattice functions, the reduction of the dynamic aperture, and the reduction of the beam lifetime with pole gap closed. The measured linear effects were in good agreement with the model calculations. The correction of the tune shift with a pair of quadrupole magnets are in the routine operation. The dynamic orbit correction to insure the orbit change, while pole gap is varied, within 10 mm both with the built-in corrector table and/or the digital global orbit feedback system is in progress.