

**The Improvements of Vacuum Performance at Taiwan Light Source**, J.R. CHEN, K.M. HSIAO, G.Y. HSIUNG, S.N. HSU, Y.J. HSU, K.C. KUO, T.F. LIN, H.S. TZENG, T.S. UENG, W.H. WEI, SRRC - The vacuum system of TLS storage ring has been upgraded recently. The upgrade plan includes the installation of NEG pumps, reducing the out-gassing rate from the chamber and gas leakage. The vacuum pressure is improved from  $1\text{E-}9$  torr to  $1\text{E-}10$  torr without electron beam stored in the chamber. During an 1.5 GeV, 200 mA electron beam operation, the pressure is also improved from  $2\text{E-}9$  torr to  $3\text{E-}10$  torr. The contamination of  $\text{CxFy}$  due to overheating of an O-ring gate valve during chamber baking was decreased by the self-cleaning of synchrotron radiation. The dominated residual gases and photon stimulated desorption behavior prior to the upgrade are compared with present results.