Acceleration of Multiply Charged Ions at HIMAC, A. KITAGAWA, M. KANAZAWA, K. NODA, E. TAKADA, NIRS - HIMAC accelerator is required to supply heavier ions than Ar and hydrogen molecular ions in order to widen a scope of physical and biological experiments. Fe ions should be supplied, in particular, because it is important to investigate a radiation effect on human body in the space. A fraction of fully stripped ion is decreased, however, in passing havier ions than oxygen ion with the energy of 6 MeV/n through carbon-stripper located just after the injector linac. Thus, HIMAC synchrotron is required to accelerate multiply charged ions. The paper reports the experimental results of life-time measurement and of acceleration of multiply charged ions such as hydrogen molecular, Ar, Kr and Fe ions.