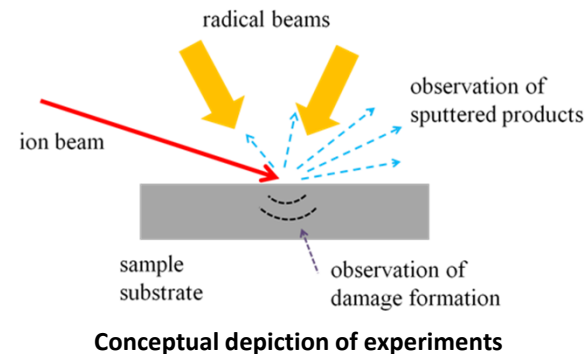
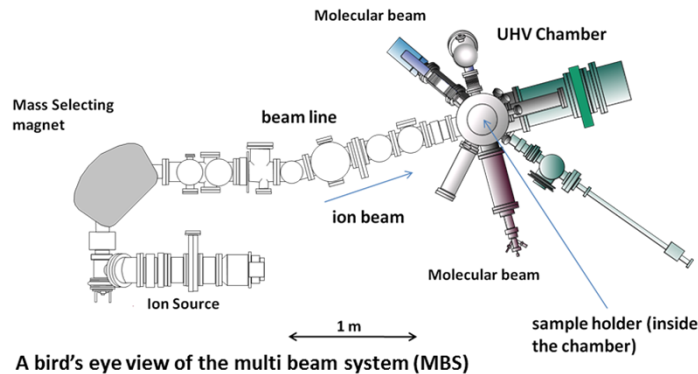


# Ion beam studies on plasma-surface interactions

Satoshi Hamaguchi : Osaka University

- Ion beam and molecular dynamics (MD) simulation studies have been conducted for the measurements of sputtering yields relevant for non-traditional CMOS structures



- Conclusions
  - Sputtering yields of vertical incidence of  $\text{Cl}^+$ ,  $\text{Br}^+$ ,  $\text{HBr}^+$ ,  $\text{Ar}^+$ , and  $\text{Kr}^+$  ions as functions of incident energy have been obtained.
  - At 300eV injections, Si are removed as Si or SiCl (or SiBr). SiCl<sub>2</sub> (SiBr<sub>2</sub>) signals are less than the detectable levels.
  - TEM images of 500eV  $\text{Br}^+$  and  $\text{H}^+$  ion shows damage formation in Si.