

# Ion Beam Etch for III-V Materials

- Applications: high-frequency electronics, optoelectronics.
- Select Veeco Applications and Materials:
  - High-frequency IC components - GaAs, InP, Ti, Pt, Au.
  - LED contacts - Ag, TiWN, GaN
  - HEMT – high electron mobility transistor - GaN/AlN
- Motivation for IBE
  - Avoid the damaging effects of Cl-based RIE
  - Sidewall control, no undercut
  - Repeatability
  - N<sub>2</sub>-based etch may help prevent stoichiometry loss in GaN