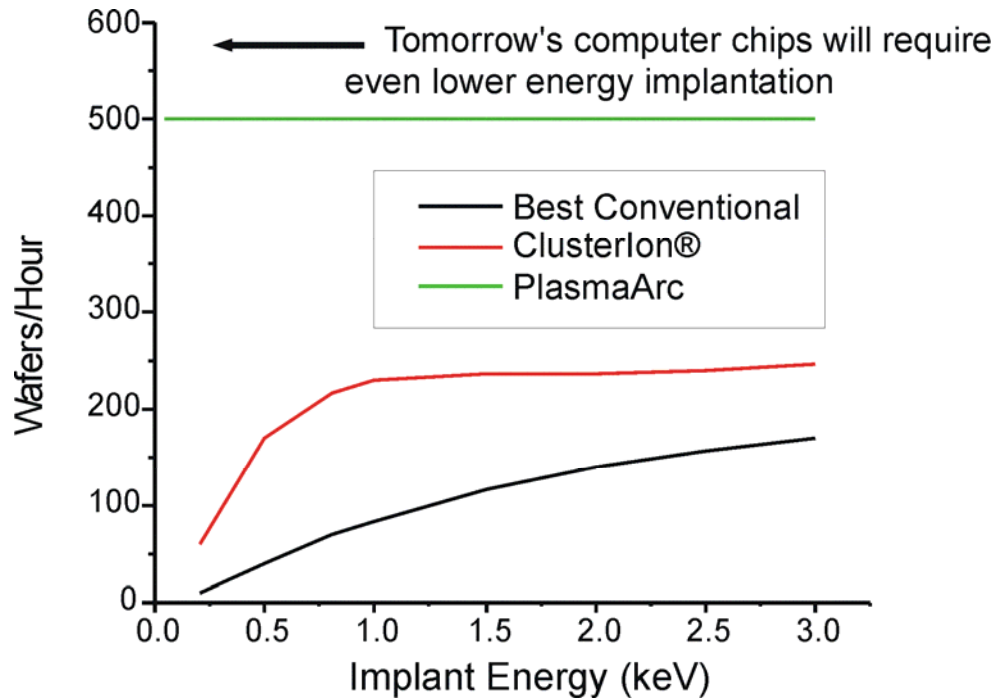


The need for the PlasmaArc Implanter



- As computer chips get faster, the transistors inside them get smaller.
- This requires that the ion implanters use **lower ion energies** to make shallower doping profiles.
- Conventional (beamline) implanters quickly run out of steam as the ion energies get below a few keV (see chart).
- The new ClusterIon® implanters will keep things going down to 0.5 keV.
- Only the PlasmaArc Implanter[#] has the potential to deliver at even lower ion energies!
- See detailed capabilities [here](#)

*** ClusterIon® Implanter and Conventional Implanter data are obtained from www.semequip.com/

*** The PlasmaArc Implanter rate is projected, based on the fastest known mechanical manipulator, assuming current prototype plasma beam size. Ultimately, by plasma spreading techniques the rate could be higher.

*# A patented technology under development by
Brontek Delta Corporation (brontek.com)*