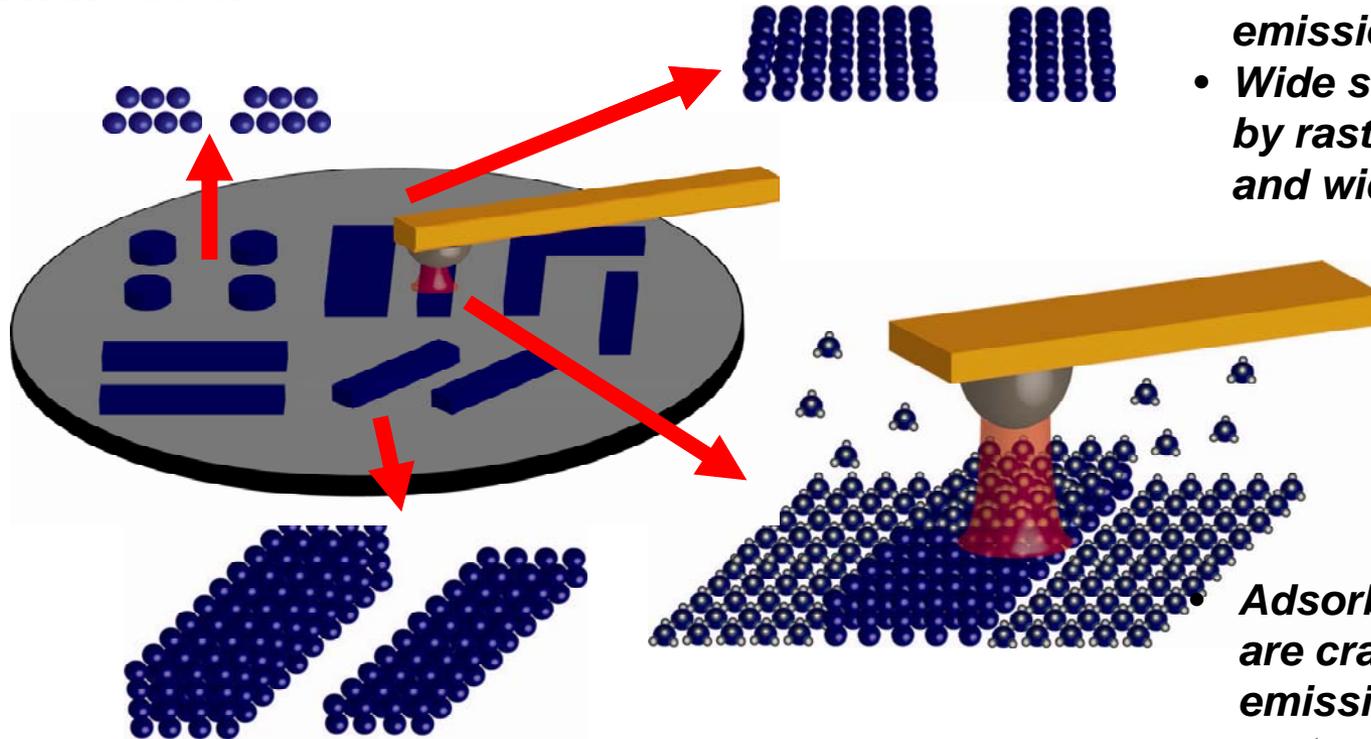


Tip Directed Field-Emission Assisted Nanomanufacturing (TFAN)

- *X-Y rastering of tip can be used to make general structures, such as arrays of Si nano-dots.*

- *Nanowire width is controlled by field emission (FE) beam width.*
- *Wide structures are made by rastering both in length and width.*



- *Nanowire height can be adjusted by controlling number of passes by tip.*

- *Adsorbed precursors are cracked by tip field-emission as the tip rasters over structure.*
- *Precursors adsorb to the newly created layer, preparing structure for next tip pass.*