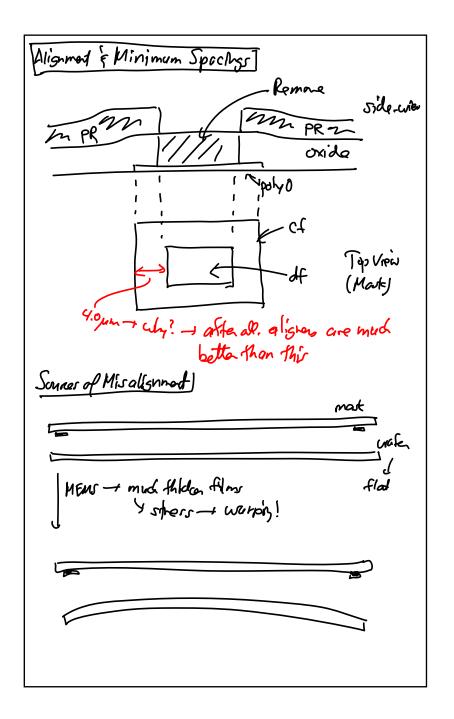
## Lecture 11w: Bulk Micromachining

## Lecture 11: Bulk Micromachining Announcements: HW#3: Online, due Thursday next week Problem w/ video recording of last lecture; at least sound is available Today: Reading: Senturia Chpt. 3, Jaeger Chpt. 11, Handout: "Surface Micromachining for Microelectromechanical Systems" · Lecture Topics: ♦ Polysilicon surface micromachining **♦** Stiction & Residual stress ♦ Topography issues SNickel metal surface micromachining \$3D "pop-up" MEMS \$ Foundry MEMS: the "MUMPS" process The Sandia SUMMIT process Reading: Senturia Chpt. 3, Jaeger Chpt. 11, Handouts: "Bulk Micromachining of Silicon" · Lecture Topics: Sulk Micromachining Sanisotropic Etching of Silicon **⇔** Boron-Doped Etch Stop \$ Isotropic Etching of Silicon ♦ Deep Reactive Ion Etching (DRIE) Last Time:



Going through Module 5 on Surface Micromachining

Lecture 11w: Bulk Micromachining

