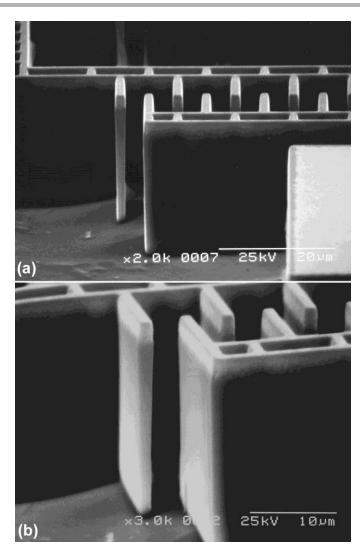


# TIDE Process (Panasonic 1)





E. Parker, B. Thibeault

#### Recipe for Bulk-Ti Deep etch

- 100 sccm Cl2
- 5 sccm Ar
- 2.5 Pa
- 400 W ICP, 150 W BiasEtch Rate: ~2um/min.
- TiO2 or SiO2 hard Mask

E. Parker, et. Al. Journal of The Electrochemical Society, 152 10 C675-C683 2005

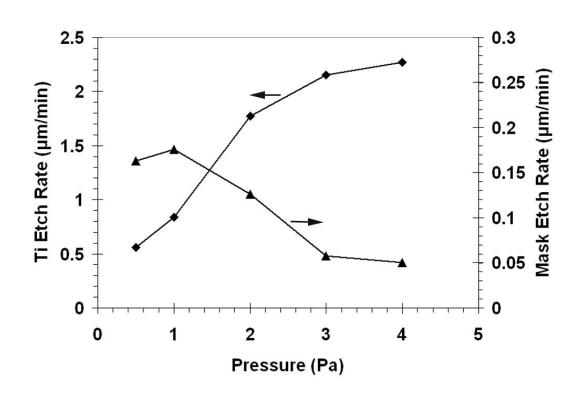






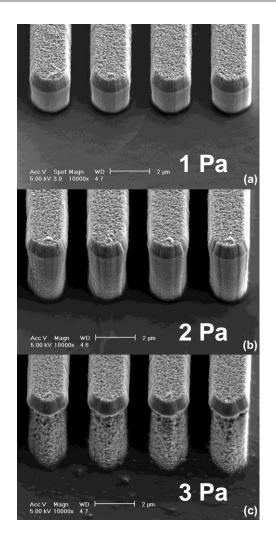
## **Process Variations**



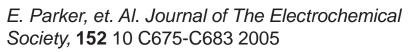




TiO2 mask Cl2 100 sccm Ar 5 sccm 400W ICP 100 W Bias 2 min





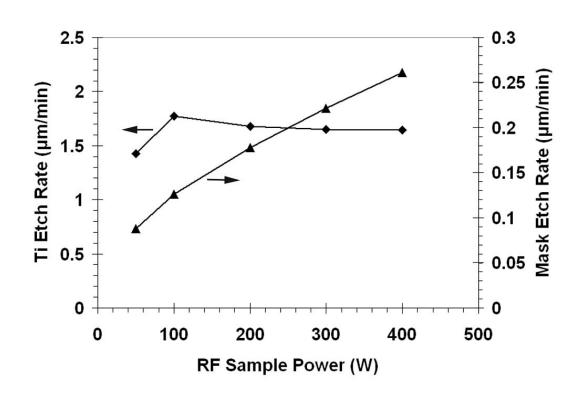






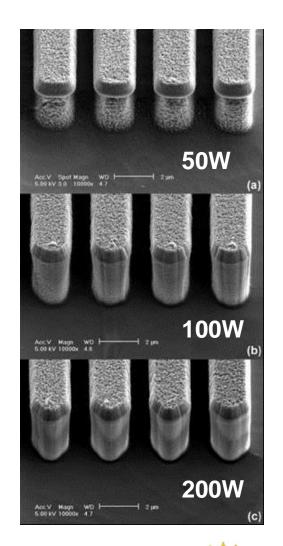
## **Process Variations**





#### **Nominal Conditions**

TiO2 mask Cl2 100 sccm Ar 5 sccm 2.0 Pa 400W ICP 2 min







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