

Plasma Fuelling with TMB

H. W. Kugel

**NSTX RESEARCH FORUM
SEPTEMBER, 2001**

Feasibility Studies of Trimethylboron (TMB) Injection into Ohmic and NBI Discharges Completed



- **Ohmic Discharges**

- Yielded x2 decrease in central radiation after TMB.
- The subsequent post-TMB, LSN, 900 kA, 1.5 MW, NBI fiducial discharge exhibited a **transition into the H-mode**.
- Edge fueling with TMB did not increase B V and C VI.

- **Neutral Beam Discharges**

- **High Te during NBI**

TMB Next Step



- **FY03 Research Plan**

- 1) **Condition surfaces with extensive He Discharge Conditioning**
- 2) **Perform B coating sweeps of wetted surfaces (painting)**
- 3) **Measure window deposition**
 - to allow opening shutters for low-Z mantle experiments