



NSTX



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Achieving a Small ELM Regime in NSTX with Lithium Conditioning

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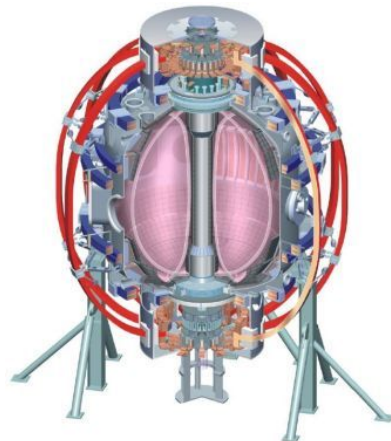
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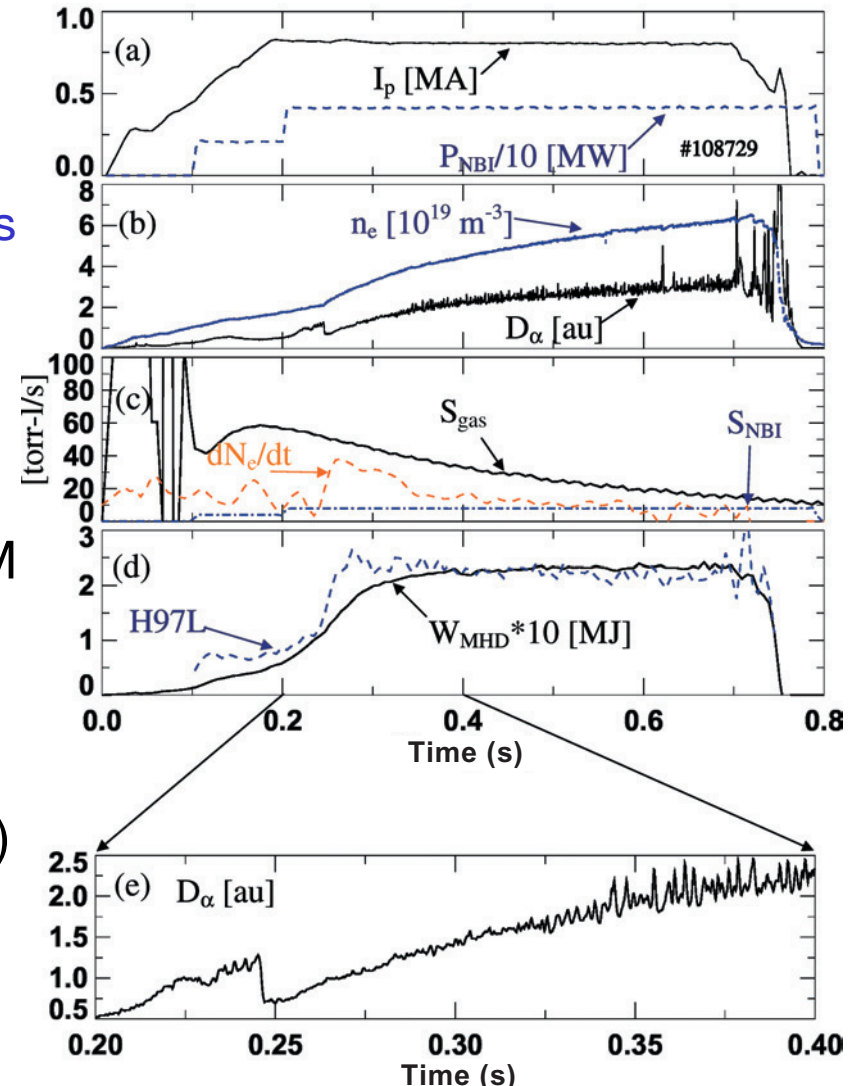
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Motivation: NSTX previously could operate in a small ELM regime that resulted in high stored energy

- Good number of reference shots from years past
 - Resulted in high W_{MHD} discharges
 - Provided a method of flushing impurities from the discharge
- However, lithium stabilizes discharge against ELMs
 - Leads to impurity build up
- Look for methods to return to small ELM regime
 - Burn through lithium layer?
 - Strong shaping to reduce ELM stability
- Propose to revisit this scenario (1/2 day)
 - strongly bias LSN ($\delta r_{\text{sep}} < \sim -10$ mm)
 - “burn-off” lithium
 - Low flux expansion and/or strike point sweeping



R. Maingi, NF. 45 (2005) 264