

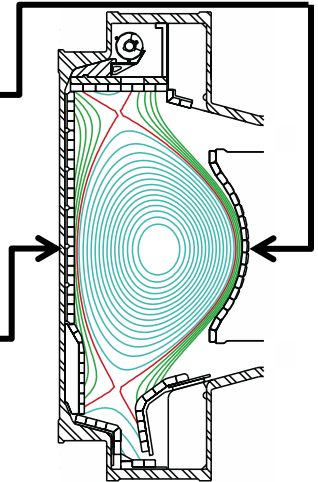
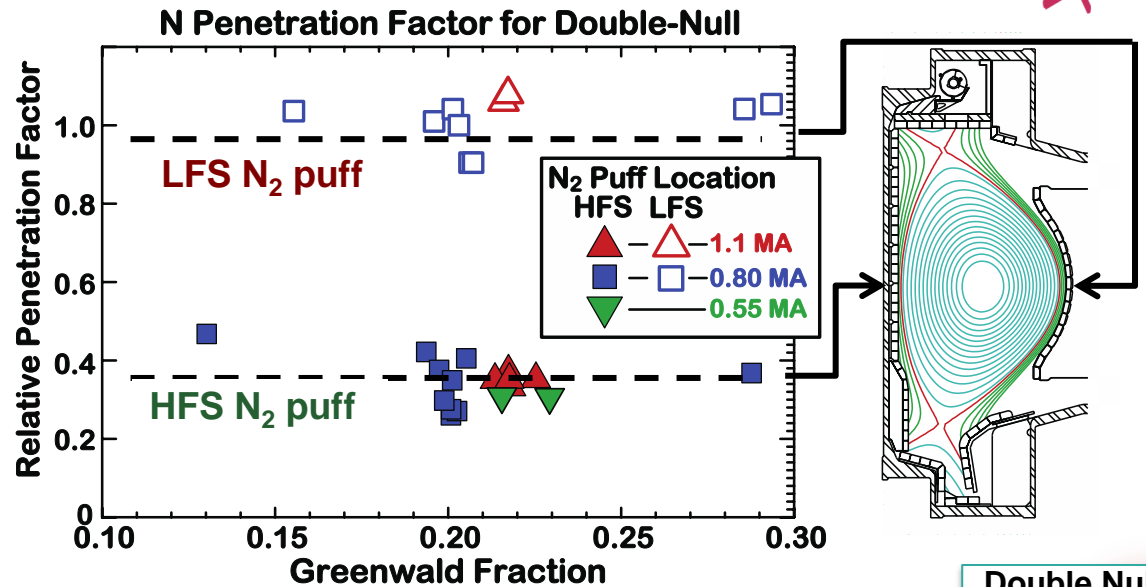
# Balanced Double Null plasmas exhibit exquisite profile control and good impurity screening on the high-field side (HFS) SOL

Results support idea of relocating all RF actuators to HFS to control and mitigate plasma-material interactions

Alcator C-Mod

Good HFS impurity screening in Balanced Double Null ...

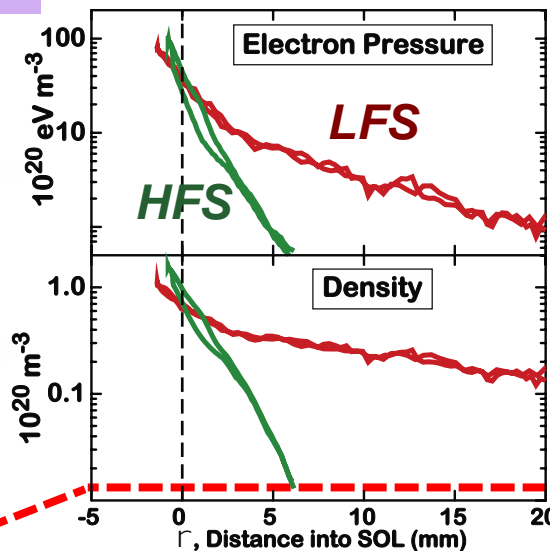
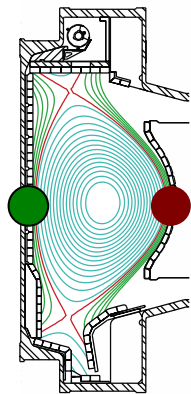
High-field side SOL shows factor of ~2.5 decrease in impurity penetration to N<sub>2</sub> puff compared to Low-field side SOL



... despite very sharp profiles

High field side SOL - very sharp profiles, controlled by magnetic topology

Low-field side SOL - broad shoulders



HFS density drops by two orders of magnitude in 6 mm

Supports idea to locate RF actuators on HFS to mitigate PMI

