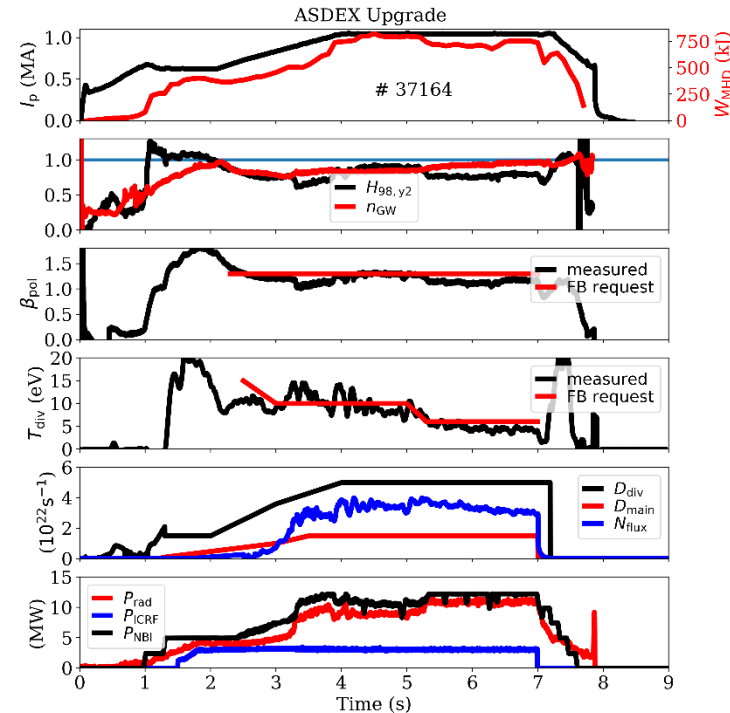
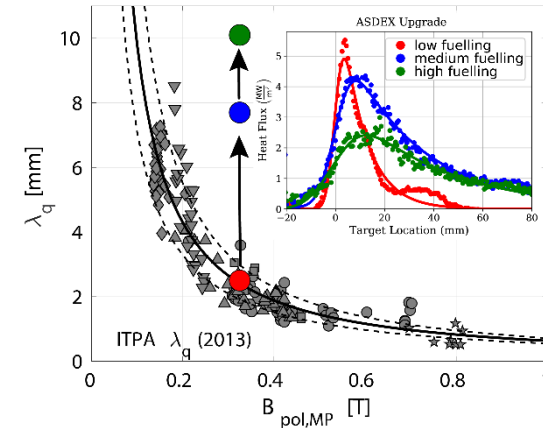


High density, high confinement, power exhaust compatible H-mode regime in TCV and ASDEX Upgrade



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- High density H-mode regime without ELMs named quasi-continuous exhaust (QCE) regime.
- Accessed conditions:
 - strong shaping (high triangularity, close-to-double-null).
 - high pressure/density at vicinity of the separatrix.



- QCE regime is characterized by enhanced filamentary transport and a significantly broadened power fall-off length λ_q is observed.
- In both TCV and ASDEX Upgrade edge safety factor was successfully lowered to $q_{95} = 3.7$.
- Integrated scenario discharge achieved with double feed-back in β_{pol} and T_{div} without any large ELMs, reaching a flat-top with $\beta_N = 2.1$ and $H_{98,y2} = 0.9$ with a partially detached divertor.