

The role of ELM's and inter-ELM phases in the transport of heavy impurities in JET

EX/P6-17



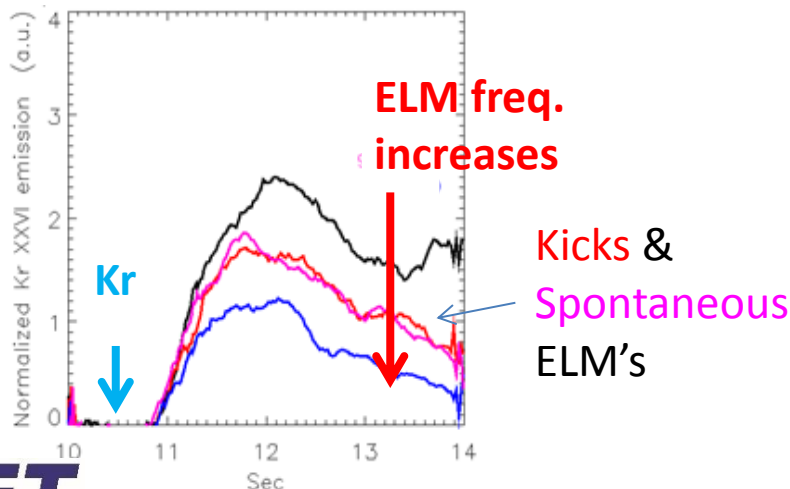
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Scope: investigate the nature of the impurity transport induced by ELM's to understand if in ITER there might be conditions in which ELM's inject rather than expel impurities

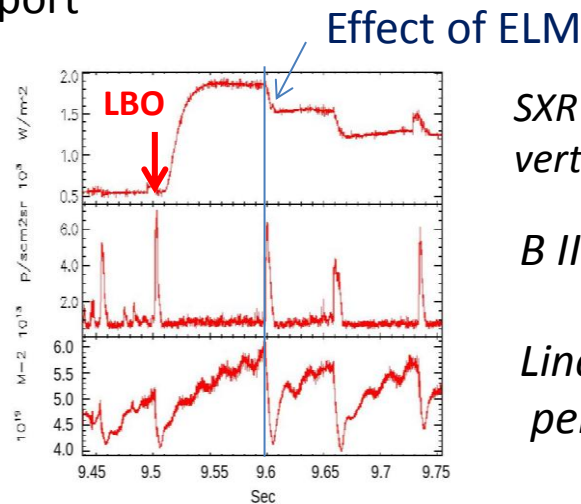
Method: inject extrinsic heavy impurities in various plasma scenarios and analyze their behaviour

Results (limited to the low power part of the experiment, with $W_{\text{loss}}/\text{ELM} \sim 0.2$ MJ):

- a) ELM's expel impurities in the same way regardless of their masses (Ne to W)
- b) Spontaneous and kicks paced ELM's have same impact
- c) SXR can be used to analyze impact of single ELM and try to discriminate between diffusive and convective nature of ELM transport



JET Kr density vs time after injection



SXR, ELM's, and density vs time after Mo LBO

SXR peripheral ($\rho = 0.7$) vertical channel

B II line @ divertor

Line integrated peripheral n_e