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CHARACTERISTICS OF ASYMMETRIC (LOW-FIELD-SIDE AND HIGH-FIELD SIDE) DIVERTOR DETACHMENT IN KSTAR L-MODE PLASMAS



[EX / P7-7]





<Summary>

- 1) The asymmetric divertor detachment was observed in KSTAR L-mode plasmas
- 2) Experimental result is qualitatively consistent with the prediction by the SOLPS-ITER code
- 3) The detachment is achieved by the momentum loss. The significant momentum loss occurs for T_{et} < 2 eV, driven by the molecule-plasma interactions
- 4) The D₂ molecules are mainly accumulated near the outer target due to the target geometry. It enhances momentum loss there and cause asymmetric detachment