

Stability and Edge-Localized Mode Characterization in I-Mode Pedestals

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I-mode is a novel high-confinement tokamak regime characterized by H-mode-like enhanced energy confinement and the formation of a strong temperature pedestal, without the accompanying density pedestal or enhanced particle confinement, maintaining an L-mode-like density profile. I-mode exhibits a number of desirable properties for a reactor regime, including a lack of strong degradation of energy confinement with heating power and apparent naturally-occurring suppression of large ELMs, avoiding the need for externally-applied ELM suppression.

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I. INTRODUCTION

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