

EFFECT OF DESTABILIZED ALFVÉN EIGENMODES ON ALPHA PARTICLES IN A HELIAS REACTOR

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The upper limits of the local energy losses of circulating α -particles caused by the various instabilities of Alfvén eigenmodes in a four-period Helias reactor are evaluated. It is found that certain destabilized Alfvén eigenmodes will affect only alphas with the energy well below 3,5 MeV, which seems to open a possibility to remove the helium ash by exciting the corresponding Alfvén eigenmodes by either energetic particles or an antenna system.