

RESEARCH ARTICLE |

FEBRUARY 22 2011

Registration of Alfvén resonances in TCABR tokamak by the scanning reflectometer at sideband frequencies

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Rev Sci Instrum 82, 023504 (2011)

<https://doi.org/10.1063/1.3541756>

Article history 

A frequency scanning O-mode reflectometer was used for studies of plasma density oscillations during local Alfvén wave (LAW) excitation in the Tokamak Chauffage Alfvén Brésilien (TCABR) at the frequency $f_{\perp} = 5$ MHz. It was



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which consists mainly of the “beat” frequency f_B , is modified by the LAW excitation, and two additional frequency peaks appear, which are symmetrical in relation to the LAW excitation frequency $f = f_A \pm f_B$. This result opens the possibility to improve the efficiency of studying the LAW induced density oscillations. The symmetry of these frequency peaks yields the possibility of finding the microwave frequency at which the reflectometer cutoff layer coincides with radial position of the LAW resonance zone in the TCABR tokamak.

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