

QUASITRANSIRENCY AND INFORMATION
TRANSPARENCY OF WAVE BARRIERS
IN MAGNETOACTIVE INHOMOGENEOUS
PLASMA IN THE CASE OF EXCITATION
OF BERNSTEIN WAVES IN IT

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S u m m a r y

In the process of experimental investigations of the quasitransparency of a wave barrier in the inhomogeneous weakly magnetized plasma for waves that belong to the upper hybrid dispersion branch of oscillations, we have discovered the anomalous penetration of oscillations into the barrier and in the plasma beyond it in a certain frequency range. The investigation of this effect has demonstrated that it is conditioned by the excitation of Bernstein waves and their propagation in the plasma system. The peculiarities of their realization in the plasma system are determined. The possibilities of the existence of mechanisms of quasitransparency and information transparency of plasma wave barriers with participation of Bernstein waves are analyzed.