

EXPERIMENTAL INVESTIGATIONS OF
ONE POSSIBILITY OF BLOOMING THE
INHOMOGENEOUS PLASMA. 2. PECULIARITIES
OF REALIZATION OF PLASMA BARRIER
TRANSILLUMINATION FOR ELECTRON WAVES
IN A LOW-MAGNETIZED PLASMA

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S u m m a r y

Peculiarities of a realization of the transillumination of the plasma barrier for upper hybrid electron waves in a low-magnetized plasma due to the mechanism based both on the kinetics of plasma electrons trapped in the potential well of a plasma formation and on their phase focusing are studied. The analysis of these peculiarities is used to forecast the dependence of the transillumination efficiency on the wave frequency and on plasma system parameters. The qualitative agreement of the forecasted dependences with experimental results is shown. It is established that the mechanism of transillumination proposed theoretically does not include the ways to control it under the preset wave frequency and parameters of the plasma formation, so it should be classified as the mechanism of quasitransparency of the wave barriers in plasma.