

PECULIARITIES OF ELECTROMAGNETIC WAVE
REFRACTION ON THE SURFACE
OF AN ABSORBING MEDIUM

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S u m m a r y

The expressions for the refraction angle of electromagnetic waves in absorptive media based on the classical vector Maxwell equations for a continuum have been obtained. It has been found that the propagation direction of the electromagnetic field energy coincides with a normal to the plane of equal phases only in the case of TM-polarization of the incident wave, and under the incidence being near to a perpendicular one. In this case, the refraction angle can be determined using only the real part of the refraction index. For all other polarizations of an incident wave, the complicated dependence of the electromagnetic field propagation direction on the polarization of an incident wave in the absorptive medium has been demonstrated. In the case of the mixed polarization of an incident wave, a deviation of the propagation plane of the electromagnetic field energy from the incidence plane has been established.