SIMULATION OF THE AMPLITUDE-PHASE SPECTRA OF THE FABRY—PEROT INTERFERENCE BY THE ENVELOPE FUNCTION METHOD IN THE REGION OF RESONANT DISPERSION OF THE RESONATOR OPTICAL FUNCTION

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Summary

The theoretical simulation of the amplitude-phase Fabry–Perot spectroscopy of the light reflected and transmitted by three-layer plane structures in the region of the resonant dispersion of their dielectric permittivity has been carried out. It has been shown that there is a spectral interval of a certain width where the multibeam interference is of no importance. Beyond this interval, the values of the energy factors of reflection $R_{\rm max,min}$, transmission $T_{\rm max,min}$, and phase $\phi_{\rm max,min}$, which are taken at the extrema of the interference bands considered as the envelopes, describe the amplitude-phase spectra correctly.