OPTICAL CONDUCTIVITY AND ABSORPTION OF THIN METAL FILMS IN THE INFRA-RED SPECTRAL RANGE

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S u m m a r y

Formulas for optical conductivity of thin quasihomogeneous films, which take into account the dependence of the Fermi energy position on film dimensions, have been derived in the framework of the diagonal response approximation. The optical conductivities and the absorption coefficients for nano-sized Al, Au, and Li films have been calculated.