

ON THE ABSORPTION OF LINEARLY POLARIZED
RADIATION IN A SEMICONDUCTOR-BASED
NANOSTRUCTURE WITH HOLE CONDUCTION

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S u m m a r y

The absorption of linearly polarized radiation in a dimensionally quantized semiconducting well, which is connected with optical transitions both between the light and heavy hole branches and between dimensionally quantized subbands (DQSBs), has been considered. The principal features of light absorption in an indefinitely deep symmetric well have been established. This absorption is characterized by the intraband light absorption caused by the direct optical transitions of holes between the subbands which are formed due to dimensional quantization. The spectral dependence of the light absorption coefficient has been obtained.