

506. Title:Study of the properties of artificial anisotropic structures with high chirality
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Abstract:The chiral properties of an artificial anisotropic structure composed of microhelices are numerically simulated using the example of a sample developed by a team of authors from the Institute of Semiconductor Physics of the Russian Academy of Sciences. It is shown that this artificial structure can exhibit strong chiral properties in the THz range. Analytical expressions for the dielectric, magnetic, and chiral susceptibilities of the structure are derived on the condition of strong gyrotropy. The calculated values of the angle of the electromagnetic-wave polarization plane rotation and the circular dichroism are compared with the experimental results.