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# 【467】Investigation of Near-Infrared Induced Spatial THz Modulation in High Resistivity Silicon

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The terahertz (THz) region lies in between of the RF and optical spectral regions and is expected to become a part of novel wireless links due to its high bandwidth and safety. Therefore, a refined control over THz radiation is required.

We investigate the influence of spatially controlled, near-infrared induced charge carriers in high-resistivity silicon on a collimated THz beam. Our results indicate that the refractive index is significantly modulated. This spatially controlled modulation is especially interesting regarding phase-modulation, which may pave the way for beam-steered wireless THz links.

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