

Abstract Submitted
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The optical properties of SnO₂ nano-wires by THz time-domain spectroscopy DONGWOOK LEE, Nanyang Technological University, XINGQUAN ZOU, CHUANWEI CHENG, SARITHA K. NAIR, HONGJIN FAN, ELBERT E.M. CHIA — As feature sizes of devices are reduced below a hundred nanometers and chip frequencies reach high GHz, a convenient method of characterizing thin films in the GHz to THz frequency range has been required. THz time-domain spectroscopy provides a non-destructive, non-contact, and high-sensitive tool to characterize thin films as well as nano-materials. The optical properties of SnO₂ nano-wires, which were grown on z-cut quartz, have been investigated by THz time-domain spectroscopy. The real and imaginary parts of the complex refractive index and optical conductivity are measured at THz frequency.

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