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标题: Wideband slow-light modes for time delay of ultrashort pulses in symmetrical metal-cladding optical waveguide

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摘要: A widebandwidth optical delay line is a useful device for various fascinating applications, such as optical buffering and processing of ultrafast signal. Here, we experimentally demonstrated effective slow light of sub-picosecond signal over 10 THz frequency range by employing the wide slow light modes in thick symmetrical metal-cladding optical waveguide (SMCOW). Ultrahigh-order guided modes travelling as slow light in waveguide together with strong confinement provided by metal-cladding makes this scheme nearly material dispersion independent and compatible with wide bandwidth operation. (C) 2012 Optical Society of America

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