

# Fan-out grating design MgO:PPLN based subnanosecond optical parametric generator with wide and continuous tunability in the near-infrared

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The first subnanosecond pulse duration optical parametric generator (OPG) based on fan-out grating design MgO:PPLN crystal is demonstrated. Fan-out grating OPG enables quickly, widely, and continuously tunable, compact, and effective subnanosecond coherent light source covering near-infrared spectral region (1400 - 4400 nm) with OPG conversion efficiency up to 47 %.

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