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Accession number:20123815457059
Title:Generation of high-frequency terahertz waves in periodically poled LiNbOinf3/inf based on backward parametric interaction
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Source title:Applied Physics Letters
Abbreviated source title:Appl Phys Lett
Volume:101
Issue:11
Issue date:September 10, 2012
Publication year:2012
Article number:111101
Language:English
ISSN:00036951
CODEN:APPLAB
Document type:Journal article (JA)
Publisher:American Institute of Physics, 2 Huntington Quadrangle, Suite N101, Melville, NY 11747-4502, United States
Abstract:Backward terahertz pulses at high frequencies are generated in multi-period periodically poled LiNbOinf3/inf using ultrafast pulses of a regenerative amplifier. The highest frequencies generated by us are centered at 4.8 THz at the poling period of 7.1 μm, corresponding to the output wavelength of 62.5 μm. Enhancement factors as large as 61 in the output powers are achieved and analyzed due to resonance-enhanced nonlinear optical coefficients. © 2012 American Institute of Physics.
Number of references:17
Main heading:Terahertz waves
Controlled terms:Physical properties - Physics
Uncontrolled terms:Enhancement factor - High frequency - High frequency HF - Multi-period - Non-linear optical coefficients - Output power - Output wavelengths - Parametric interactions - Periodically poled - Regenerative amplifier - Terahertz pulse - Ultrafast pulse
Classification code:711 Electromagnetic Waves - 931 Classical Physics; Quantum Theory; Relativity - 931.2 Physical Properties of Gases, Liquids and Solids - 932 High Energy Physics; Nuclear Physics; Plasma Physics - 933 Solid State Physics
DOI:10.1063/1.4751843
Database:Compendex