# Holger Grahn

List of Publications by Year
in descending order

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| 51 | 1,127 | 361413 | 395702 |
|---|---|---|---|
| papers | citations | 20 h-index | 33 g-index |

| 51 | 51 | 51 | 753 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | 4.7-THz Local Oscillator for the GREAT Heterodyne Spectrometer on SOFIA. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 539-545. | 3.1 | 89 |
| 2 | A compact, continuous-wave terahertz source based on a quantum-cascade laser and a miniature cryocooler. Optics Express, 2010, 18, 10177. | 3.4 | 85 |
| 3 | <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Co</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> light-emitting diodes: Competition between spin injecti. Physical Review B, 2008, 78, . | 3.2 | 84 |
| 4 | High-temperature, continuous-wave operation of terahertz quantum-cascade lasers with metal-metal waveguides and third-order distributed feedback. Optics Express, 2014, 22, 3334. | 3.4 | 81 |
| 5 | Fast 2-D and 3-D Terahertz Imaging With a Quantum-Cascade Laser and a Scanning Mirror. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 617-624. | 3.1 | 53 |
| 6 | Evidence for frequency comb emission from a Fabry-PÃ©rot terahertz quantum-cascade laser. Optics Express, 2014, 22, 30410. | 3.4 | 48 |
| 7 | Frequency dependence of the maximum operating temperature for quantum-cascade lasers up to 5.4 THz. Applied Physics Letters, 2015, 107, . | 3.3 | 44 |
| 8 | Real-time terahertz imaging through self-mixing in a quantum-cascade laser. Applied Physics Letters, 2016, 109, . | 3.3 | 44 |
| 9 | Frequency modulation spectroscopy with a THz quantum-cascade laser. Optics Express, 2013, 21, 32199. | 3.4 | 42 |
| 10 | Quantum-cascade lasers as local oscillators for heterodyne spectrometers in the spectral range around 4.745 THz. Semiconductor Science and Technology, 2013, 28, 035011. | 2.0 | 41 |
| 11 | Terahertz GaAs/AlAs quantum-cascade lasers. Applied Physics Letters, 2016, 108, . | 3.3 | 40 |
| 12 | Low-threshold terahertz quantum-cascade lasers based on GaAs/Al0.25Ga0.75As heterostructures. Applied Physics Letters, 2010, 97, 071113. | 3.3 | 31 |
| 13 | Fast continuous tuning of terahertz quantum-cascade lasers by rear-facet illumination. Applied Physics Letters, 2016, 108, . | 3.3 | 30 |
| 14 | Nonlinear transport in quantum-cascade lasers: The role of electric-field domain formation for the laser characteristics. Journal of Applied Physics, 2011, 109, . | 2.5 | 28 |
| 15 | Compact model for the efficient simulation of the optical gain and transport properties in THz quantum-cascade lasers. Semiconductor Science and Technology, 2010, 25, 045025. | 2.0 | 26 |
| 16 | Terahertz gas spectroscopy through self-mixing in a quantum-cascade laser. Applied Physics Letters, 2016, 109, . | 3.3 | 24 |
| 17 | High-spectral-resolution terahertz imaging with a quantum-cascade laser. Optics Express, 2016, 24, 13839. | 3.4 | 24 |
| 18 | Multi-channel terahertz grating spectrometer with quantum-cascade laser and microbolometer array. Applied Physics Letters, 2011, 99, . | 3.3 | 21 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Lateral distributed-feedback gratings for single-mode, high-power terahertz quantum-cascade lasers. Optics Express, 2012, 20, 11207. | 3.4 | 21 |
| 20 | Doppler-free spectroscopy with a terahertz quantum-cascade laser. Optics Express, 2018, 26, 6692. | 3.4 | 21 |
| 21 | High-Performance GaAs/AlAs Terahertz Quantum-Cascade Lasers For Spectroscopic Applications. IEEE Transactions on Terahertz Science and Technology, 2020, 10, 133-140. | 3.1 | 21 |
| 22 | Efficient simulation of the impact of interface grading on the transport and optical properties of semiconductor heterostructures. Applied Physics Letters, 2014, 104, . | 3.3 | 17 |
| 23 | Analysis of the slope efficiency for terahertz quantum-cascade lasers. Journal of Applied Physics, 2010, 108, . | 2.5 | 15 |
| 24 | Experimental evidence for coherence resonance in a noise-driven GaAs/AlAs superlattice. Europhysics Letters, 2014, 105, 47005. | 2.0 | 15 |
| 25 | Real-time gas sensing based on optical feedback in a terahertz quantum-cascade laser. Optics Express, 2017, 25, 30203. | 3.4 | 15 |
| 26 | Determination of the interface parameter in terahertz quantum-cascade laser structures based on transmission electron microscopy. Applied Physics Letters, 2018, 113, 172101. | 3.3 | 14 |
| 27 | A 3.5-THz, Ã—6-Harmonic, Single-Ended Schottky Diode Mixer for Frequency Stabilization of Quantum-Cascade Lasers. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 684-694. | 3.1 | 14 |
| 28 | Wideband, high-resolution terahertz spectroscopy by light-induced frequency tuning of quantum-cascade lasers. Optics Express, 2019, 27, 5420. | 3.4 | 14 |
| 29 | Heterodyne Spectroscopy of Frequency Instabilities in Terahertz Quantum-Cascade Lasers Induced by Optical Feedback. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 1-6. | 2.9 | 13 |
| 30 | Terahertz quantum-cascade lasers as high-power and wideband, gapless sources for spectroscopy. Optics Express, 2017, 25, 16282. | 3.4 | 13 |
| 31 | Terahertz quantum-cascade lasers for high-resolution spectroscopy of sharp absorption lines. Journal of Applied Physics, 2019, 125, . | 2.5 | 11 |
| 32 | Fourier transform-based scattering-rate method for self-consistent simulations of carrier transport in semiconductor heterostructures. Journal of Applied Physics, 2015, 117, . | 2.5 | 10 |
| 33 | Spatially resolved study of polarized micro-photoluminescence spectroscopy on single GaAs nanowires with mixed zincblende and wurtzite phases. Journal of Applied Physics, 2015, 117, 054308. | 2.5 | 10 |
| 34 | A Compact 4.75-THz Source Based on a Quantum-Cascade Laser With a Back-Facet Mirror. IEEE Transactions on Terahertz Science and Technology, 2019, 9, 606-612. | 3.1 | 10 |
| 35 | Suppression of longitudinal modes in two-sectioned, coupled-cavity GaAsâˆ•(Al,Ga)As terahertz quantum-cascade lasers. Applied Physics Letters, 2007, 91, 161102. | 3.3 | 9 |
| 36 | Intrinsic frequency tuning of terahertz quantum-cascade lasers. Journal of Applied Physics, 2018, 123, . | 2.5 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Frequency and power stabilization of a terahertz quantum-cascade laser using near-infrared optical excitation. Optics Express, 2019, 27, 36846. | 3.4 | 7 |
| 38 | Individual electron and hole localization in submonolayer InN quantum sheets embedded in GaN. Applied Physics Letters, 2016, 109, 042104. | 3.3 | 6 |
| 39 | Continuous tuning of two-section, single-mode terahertz quantum-cascade lasers by fiber-coupled, near-infrared illumination. AIP Advances, 2017, 7, . | 1.3 | 6 |
| 40 | Fourier-transform-based model for carrier transport in semiconductor heterostructures: Longitudinal optical phonon scattering. Journal of Applied Physics, 2016, 119, 214302. | 2.5 | 5 |
| 41 | Multiple lobes in the far-field distribution of terahertz quantum-cascade lasers due to self-interference. AIP Advances, 2016, 6, . | 1.3 | 4 |
| 42 | Phenomenological scattering-rate model for the simulation of the current density and emission power in mid-infrared quantum cascade lasers. Journal of Applied Physics, 2016, 119, . | 2.5 | 4 |
| 43 | In-situ control of molecular beam epitaxial growth by spectral reflectivity analysis. Journal of Crystal Growth, 2021, 557, 125993. | 1.5 | 4 |
| 44 | Frequency tuning of a terahertz quantum-cascade laser by rear-facet illumination via a diode laser. , 2016, , . | | 2 |
| 45 | Correlation between frequency and location on the wafer for terahertz quantum-cascade lasers. Semiconductor Science and Technology, 2021, 36, 035012. | 2.0 | 2 |
| 46 | Towards a 4.75-THz local oscillator based on a terahertz quantum-cascade laser with a back-facet mirror. , 2019, , . | | 1 |
| 47 | Electronic and magnetic properties of Î±â˜FeGe2 films embedded in vertical spin valve devices. Physical Review Materials, 2020, 4, . | 2.4 | 1 |
| 48 | Efficient numerical procedure for the determination of the wave function-independent terms in longitudinal optical phonon scattering rates formulated in the Fourier domain. Journal of Computational Electronics, 2016, 15, 1505-1510. | 2.5 | 0 |
| 49 | Stabilizing a terahertz quantum-cascade laser using near-infrared optical excitation. , 2019, , . | | 0 |
| 50 | Terahertz Sensing with Quantum-Cascade Lasers. , 2020, , . | | 0 |
| 51 | Effective group dispersion of terahertz quantum-cascade lasers. Journal Physics D: Applied Physics, 2021, 54, 025110. | 2.8 | 0 |