Hartmut G Roskos

List of Publications by Year in descending order

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366 papers 10,345 citations

44069 48 h-index 93 g-index

370 all docs

370 docs citations

370 times ranked

5457 citing authors

| # | Article | IF | CITATIONS |
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| 1 | Can a terahertz metamaterial sensor be improved by ultra-strong coupling with a high-Q photonic resonator?. Optics Express, 2022, 30, 13659. | 3.4 | 11 |
| 2 | Roadmap of Terahertz Imaging 2021. Sensors, 2021, 21, 4092. | 3.8 | 143 |
| 3 | Antenna-coupled field-effect transistors as detectors for terahertz near-field microscopy. Nanoscale Advances, 2021, 3, 1717-1724. | 4.6 | 16 |
| 4 | Strong coupling of a plasmonic dark mode with photons in a photonic crystal cavity. , 2021, , . | | 0 |
| 5 | High-harmonic generation from weakly p-doped Si pumped with intense THz pulses. , 2021, , . | | 2 |
| 6 | Modeling the THz response of antenna-coupled Silicon MOSFETs., 2021,,. | | O |
| 7 | Fifth-harmonic generation in Si:B pumped with intense terahertz pulses. , 2021, , . | | O |
| 8 | Quantitative determination of the density of photo-excited charge carriers by s-SNOM with field-effect-transistor-based THz detection. , 2021, , . | | 0 |
| 9 | Dual substrate lenses on TeraFET detector enable Fourier imaging based on sub-harmonic detection at 600 GHz., 2021,,. | | O |
| 10 | Strong interaction between two photons and a plasmon of a complementary metamaterial in a terahertz dual cavity. Optics Express, 2021, 29, 42420. | 3.4 | 15 |
| 11 | Terahertz scattering-type near-field microscopy quantitatively determines the conductivity and charge carrier density of optically doped and impurity-doped silicon. APL Photonics, 2021, 6, . | 5.7 | 7 |
| 12 | Passive Detection and Imaging of Human Body Radiation Using an Uncooled Field-Effect Transistor-Based THz Detector. Sensors, 2020, 20, 4087. | 3.8 | 27 |
| 13 | Intracavity third-harmonic generation in Si:B pumped by intense terahertz pulses. Physical Review B, 2020, 102, . | 3.2 | 21 |
| 14 | Direct nanoscopic observation of plasma waves in the channel of a graphene field-effect transistor. Light: Science and Applications, 2020, 9, 97. | 16.6 | 29 |
| 15 | Resolution enhancement of THz imaging based on Fourier-space spectrum detection. , 2020, , . | | 4 |
| 16 | THz emission from semiconductors using excitation by a tilted pulse front. , 2020, , . | | 1 |
| 17 | Terahertz photoconductive waveguide emitter with excitation by a tilted optical pulse front. Optics Express, 2020, 28, 33673. | 3.4 | 3 |
| 18 | THz Fourier Imaging Based on Sub-harmonic Heterodyne Detection. , 2020, , . | | 1 |

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| 19 | Optical Performance of Liquid Nitrogen Cooled Transistor-Based THz Detectors. , 2020, , . | | O |
| 20 | Strong coupling of two photons with a metamaterial plasmon in a terahertz cavity. , 2020, , . | | 0 |
| 21 | Distinction of the thermoelectric effect in graphene FET THz detectors. , 2020, , . | | 1 |
| 22 | Completely Passive Room-Temperature Imaging of Human Body Radiation Below $1\mathrm{THz}$ with Field-Effect Transistors. , 2020, , . | | 0 |
| 23 | 3D Fourier imaging based on 2D heterodyne detection at THz frequencies. APL Photonics, 2019, 4, . | 5.7 | 25 |
| 24 | A High-Sensitivity AlGaN/GaN HEMT Terahertz Detector With Integrated Broadband Bow-Tie Antenna. IEEE Transactions on Terahertz Science and Technology, 2019, 9, 430-444. | 3.1 | 90 |
| 25 | Design and demonstration of antenna-coupled Schottky diodes in a foundry complementary metal-oxide semiconductor technology for electronic detection of far-infrared radiation. Journal of Applied Physics, 2019, 125, 194501. | 2.5 | 11 |
| 26 | Enhancement of the Monolayer Tungsten Disulfide Exciton Photoluminescence with a Two-Dimensional Material/Air/Gallium Phosphide In-Plane Microcavity. ACS Nano, 2019, 13, 5259-5267. | 14.6 | 21 |
| 27 | Terahertz emission from biased AlGaN/GaN high-electron-mobility transistors. Journal of Applied Physics, 2019, 125, 151614. | 2.5 | 9 |
| 28 | Dynamic-range Enhancement of Heterodyne THz Imaging by the Use of a Soft Paraffin-wax Substrate Lens on the Detector. , 2019, , . | | 4 |
| 29 | Terahertz Imaging Based on Coherent Detection of the Fourier-Space Spectrum. , 2019, , . | | 0 |
| 30 | Circuit-Based Hydrodynamic Modeling of AlGaN/GaN HEMTs. , 2019, , . | | 6 |
| 31 | Unveiling the plasma wave in the channel of graphene field-effect transistor. , 2019, , . | | 0 |
| 32 | Coherent Coupled-Mode Phonon Emission in a Photoexcited Charge-Density-Wave System., 2019,,. | | 0 |
| 33 | Generation of a guided mode in a THz semiconductor waveguide using excitation by a tilted optical pulse front. , 2019, , . | | 0 |
| 34 | Polarization and sectioning characteristic of THz confocal microscopy., 2019,,. | | 0 |
| 35 | Sliver Nanowire Surface Plasmon Polaritons enhancement in Terahertz Nanodevices. , 2019, , . | | 0 |
| 36 | Cavity enhanced third-harmonic generation in Si:B pumped with intense terahertz pulses. , 2019, , . | | 0 |

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| 38 | TeraFET multi-pixel THz array for a confocal imaging system. , 2019, , . | | 4 |
| 39 | Coherent photo-induced phonon emission in the charge-density-wave state of K _{0.3} MoO ₃ . New Journal of Physics, 2019, 21, 013013. | 2.9 | 2 |
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| 41 | Terahertz Detection With a Low-Cost Packaged GaAs High-Electron-Mobility Transistor. IEEE Transactions on Terahertz Science and Technology, 2019, 9, 27-37. | 3.1 | 12 |
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| 43 | Fourier imaging with CW terahertz waves. , 2019, , . | | 1 |
| 44 | 300-GHz holography with heterodyne detection. , 2019, , . | | 4 |
| 45 | Nonlocal collective ultrastrong interaction of plasmonic metamaterials and photons in a terahertz photonic crystal cavity. Optics Express, 2019, 27, 24455. | 3.4 | 19 |
| 46 | Terahertz quantitative metrology using 300 GHz in-line digital holography., 2019,,. | | 0 |
| 47 | Field-effect transistors as electrically controllable nonlinear rectifiers for the characterization of terahertz pulses. APL Photonics, 2018, 3, . | 5.7 | 21 |
| 48 | Dielectric properties of vertically aligned multi-walled carbon nanotubes in the terahertz and mid-infrared range. Journal Physics D: Applied Physics, 2018, 51, 034004. | 2.8 | 11 |
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| 51 | Direct near-field mapping of nano-sphere-excited leaky surface modes atanisotropic metasurface. Journal of Physics: Conference Series, 2018, 1092, 012165. | 0.4 | 0 |
| 52 | THz Detection with Field-Effect Transistors: The Role of Plasma Waves and of Thermoelectric Contributions. , 2018 , , . | | 1 |
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| 56 | Sub-picosecond pulsed THz FET detector characterization in plasmonic detection regime based on autocorrelation technique. Semiconductor Science and Technology, 2018, 33, 124013. | 2.0 | 14 |
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| 60 | Thermal noise-limited sensitivity of FET-based terahertz detectors. , 2017, , . | | 11 |
| 61 | Phase-channel dynamics reveal the role of impurities and screening in a quasi-one-dimensional charge-density wave system. Scientific Reports, 2017, 7, 2039. | 3.3 | 14 |
| 62 | Hydrodynamic modelling of terahertz rectification in AlGaN/GaN high electron mobility transistors. Journal of Physics: Conference Series, 2017, 906, 012023. | 0.4 | 8 |
| 63 | Efficient Detection of 3 THz Radiation from Quantum Cascade Laser Using Silicon CMOS Detectors. Journal of Infrared, Millimeter, and Terahertz Waves, 2017, 38, 1183-1188. | 2.2 | 15 |
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