

Youngki Yoon

List of Publications by Year in descending order

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Version: 2024-02-01

42
papers

2,230
citations

566801

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h-index

344852

36
g-index

43
all docs

43
docs citations

43
times ranked

4161
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | How Good Can Monolayer MoS ₂ Transistors Be?. Nano Letters, 2011, 11, 3768-3773. | 4.5 | 1,342 |
| 2 | Highly Crystalline CVD-grown Multilayer MoSe ₂ Thin Film Transistor for Fast Photodetector. Scientific Reports, 2015, 5, 15313. | 1.6 | 129 |
| 3 | Giant Photoamplification in Indirect-Bandgap Multilayer MoS ₂ Phototransistors with Local Bottom-Gate Structures. Advanced Materials, 2015, 27, 2224-2230. | 11.1 | 109 |
| 4 | A highly sensitive chemical gas detecting transistor based on highly crystalline CVD-grown MoSe ₂ films. Nano Research, 2017, 10, 1861-1871. | 5.8 | 102 |
| 5 | Analysis of InAs vertical and lateral band-to-band tunneling transistors: Leveraging vertical tunneling for improved performance. Applied Physics Letters, 2010, 97, . | 1.5 | 76 |
| 6 | Label-Free and Recalibrated Multilayer MoS ₂ Biosensor for Point-of-Care Diagnostics. ACS Applied Materials & Interfaces, 2017, 9, 43490-43497. | 4.0 | 62 |
| 7 | Interstitial Mo-Assisted Photovoltaic Effect in Multilayer MoSe ₂ Phototransistors. Advanced Materials, 2018, 30, e1705542. | 11.1 | 48 |
| 8 | PtSe ₂ Field-Effect Transistors: New Opportunities for Electronic Devices. IEEE Electron Device Letters, 2018, 39, 151-154. | 2.2 | 38 |
| 9 | Current-Voltage Model for Negative Capacitance Field-Effect Transistors. IEEE Electron Device Letters, 2017, 38, 669-672. | 2.2 | 36 |
| 10 | Role of phonon scattering in graphene nanoribbon transistors: Nonequilibrium Green's function method with real space approach. Applied Physics Letters, 2011, 98, 203503. | 1.5 | 34 |
| 11 | Design strategy of two-dimensional material field-effect transistors: Engineering the number of layers in phosphorene FETs. Journal of Applied Physics, 2016, 119, . | 1.1 | 31 |
| 12 | On MoS ₂ Thin-Film Transistor Design Consideration for a NO ₂ Gas Sensor. ACS Sensors, 2019, 4, 2930-2936. | 4.0 | 25 |
| 13 | Ballistic "S" Characteristics of Short-Channel Graphene Field-Effect Transistors: Analysis and Optimization for Analog and RF Applications. IEEE Transactions on Electron Devices, 2013, 60, 958-964. | 1.6 | 19 |
| 14 | Nano-patterning on multilayer MoS ₂ via block copolymer lithography for highly sensitive and responsive phototransistors. Communications Materials, 2021, 2, . | 2.9 | 19 |
| 15 | Scaling Limit of Bilayer Phosphorene FETs. IEEE Electron Device Letters, 2015, 36, 978-980. | 2.2 | 17 |
| 16 | Assessment of High-Frequency Performance Limit of Black Phosphorus Field-Effect Transistors. IEEE Transactions on Electron Devices, 2017, 64, 2984-2991. | 1.6 | 17 |
| 17 | Ultrasensitive Multilayer MoS ₂ -Based Photodetector with Permanently Grounded Gate Effect. Advanced Electronic Materials, 2020, 6, 1901256. | 2.6 | 14 |
| 18 | Performance Limit Projection of Germanane Field-Effect Transistors. IEEE Electron Device Letters, 2017, 38, 673-676. | 2.2 | 12 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Assessment of Germanane Field-Effect Transistors for CMOS Technology. IEEE Electron Device Letters, 2017, 38, 1743-1746. | 2.2 | 12 |
| 20 | Monitoring Aging Defects in STT-MRAMs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 4645-4656. | 1.9 | 10 |
| 21 | Low-temperature behaviors of multilayer MoS ₂ transistors with ohmic and Schottky contacts. Applied Physics Letters, 2019, 115, . | 1.5 | 9 |
| 22 | Performance analysis of carbon-based tunnel field-effect transistors for high frequency and ultralow power applications. Applied Physics Letters, 2010, 97, 233504. | 1.5 | 6 |
| 23 | A Parametric DFT Scheme for STT-MRAMs. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2019, 27, 1685-1696. | 2.1 | 6 |
| 24 | Photoresponse of MoSe ₂ Transistors: A Fully Numerical Quantum Transport Simulation Study. ACS Applied Electronic Materials, 2020, 2, 3765-3772. | 2.0 | 5 |
| 25 | Simulation of Negative Capacitance Based on the Miller Model: Beyond the Limitation of the Landau Model. IEEE Transactions on Electron Devices, 2022, 69, 237-241. | 1.6 | 5 |
| 26 | Phototransistors: Giant Photoamplification in Indirect-Bandgap Multilayer MoS ₂ Phototransistors with Local Bottom-Gate Structures (Adv. Mater. 13/2015). Advanced Materials, 2015, 27, 2126-2126. | 11.1 | 4 |
| 27 | Device Performance Assessment of Monolayer HfSe ₂ : A New Layered Material Compatible With High- κ HfO ₂ . IEEE Electron Device Letters, 2018, 39, 1772-1775. | 2.2 | 4 |
| 28 | Intrinsic Performance of Germanane Schottky Barrier Field-Effect Transistors. IEEE Transactions on Electron Devices, 2018, 65, 4188-4195. | 1.6 | 4 |
| 29 | Strain-tuning PtSe ₂ for high ON-current lateral tunnel field-effect transistors. Applied Physics Letters, 2021, 119, . | 1.5 | 4 |
| 30 | Assessing the Role of a Semiconductor's Anisotropic Permittivity in Hafnium Disulfide Monolayer Field-Effect Transistors. IEEE Transactions on Electron Devices, 2020, 67, 2607-2613. | 1.6 | 3 |
| 31 | Using Anisotropic Insulators to Engineer the Electrostatics of Conventional and Tunnel Field-Effect Transistors. IEEE Transactions on Electron Devices, 2021, 68, 865-872. | 1.6 | 3 |
| 32 | Performance Optimization of Monolayer 1T/1T TM -2H MoX ₂ Lateral Heterojunction Transistors. IEEE Transactions on Electron Devices, 2021, 68, 3649-3657. | 1.6 | 3 |
| 33 | Can bilayer black phosphorus outperform monolayer in field-effect transistors?. , 2015, , . | | 2 |
| 34 | A Multi-Level Simulation Scheme for 2D Material-Based Nanoelectronics. , 2020, , . | | 2 |
| 35 | Exploiting Fringing Fields Created by High- κ Gate Insulators to Enhance the Performance of Ultrascaled 2-D-Material-Based Transistors. IEEE Transactions on Electron Devices, 2021, 68, 4618-4624. | 1.6 | 2 |
| 36 | Guest Editorial Special Issue on 2-D Materials for Electronic, Optoelectronic, and Sensor Devices. IEEE Transactions on Electron Devices, 2018, 65, 4034-4039. | 1.6 | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Modeling of Hysteretic Jump Points in Ferroelectric MOS Capacitors. IEEE Transactions on Electron Devices, 2019, 66, 3093-3098. | 1.6 | 1 |
| 38 | Structure and doping effects in carbon heterojunction FETs towards barrier-free inter-band tunneling. , 2010, , . | | 0 |
| 39 | Comparative analysis of the performance of InAs lateral and vertical band-to-band tunneling transistors. , 2010, , . | | 0 |
| 40 | Scaling study of graphene transistors. , 2011, , . | | 0 |
| 41 | Monolayer MoS ₂ transistors - ballistic performance limit analysis. , 2011, , . | | 0 |
| 42 | Mitigating Tunneling Leakage in Ultrascaled HfS ₂ pMOS Devices With Uniaxial Strain. IEEE Electron Device Letters, 2022, 43, 1133-1136. | 2.2 | 0 |