

# Yu-Ming Lin

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

16,519  
citations

66234

42  
h-index

149479

56  
g-index

70  
all docs

70  
docs citations

70  
times ranked

16473  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | How Important Is the Metal-Semiconductor Contact for Schottky Barrier Transistors: A Case Study on Few-Layer Black Phosphorus?. ACS Omega, 2017, 2, 4173-4179. | 1.6  | 24        |
| 2  | Epitaxial Graphene Nanoribbon Array Fabrication Using BCP-Assisted Nanolithography. ACS Nano, 2012, 6, 6786-6792.  | 7.3  | 68        |
| 3  | State-of-the-Art Graphene High-Frequency Electronics. Nano Letters, 2012, 12, 3062-3067.   | 4.5  | 371       |
| 4  | Quantum Behavior of Graphene Transistors near the Scaling Limit. Nano Letters, 2012, 12, 1417-1423.  | 4.5  | 77        |
| 5  | Three-Terminal Graphene Negative Differential Resistance Devices. ACS Nano, 2012, 6, 2610-2616.  | 7.3  | 153       |
| 6  | Electrical characterization of wafer-scale epitaxial graphene and its RF applications. , 2011, , .   |      | 1         |
| 7  | Ultimate RF Performance Potential of Carbon Electronics. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2739-2750.                            | 2.9  | 107       |
| 8  | Wafer-Scale Graphene Integrated Circuit. Science, 2011, 332, 1294-1297.  | 6.0  | 812       |
| 9  | Enhanced Performance in Epitaxial Graphene FETs With Optimized Channel Morphology. IEEE Electron Device Letters, 2011, 32, 1343-1345.                          | 2.2  | 80        |
| 10 | The origins and limits of metal-graphene junction resistance. Nature Nanotechnology, 2011, 6, 179-184.   | 15.6 | 730       |
| 11 | High-frequency, scaled graphene transistors on diamond-like carbon. Nature, 2011, 472, 74-78.  | 13.7 | 813       |
| 12 | Charge trapping and scattering in epitaxial graphene. Physical Review B, 2011, 84, .   | 1.1  | 62        |
| 13 | Multicarrier transport in epitaxial multilayer graphene. Applied Physics Letters, 2010, 97, 112107.  | 1.5  | 50        |
| 14 | High on-off ratio Bilayer Graphene complementary field effect transistors. , 2010, , .   |      | 3         |
| 15 | Nanowires. , 2010, , 119-167.  |      | 13        |
| 16 | Graphene field-effect transistors with self-aligned gates. Applied Physics Letters, 2010, 97, 013103.  | 1.5  | 84        |
| 17 | Graphene Field-Effect Transistors with High On/Off Current Ratio and Large Transport Band Gap at Room Temperature. Nano Letters, 2010, 10, 715-718.            | 4.5  | 1,191     |
| 18 | Controllable p-n Junction Formation in Monolayer Graphene Using Electrostatic Substrate Engineering. Nano Letters, 2010, 10, 4634-4639.                        | 4.5  | 148       |

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|----|--|------|-----------|
| 19 | Graphene nanophotonics. , 2010, , .  |      | 1         |
| 20 | Intrinsic limits of subthreshold slope in biased bilayer graphene transistor. Applied Physics Letters, 2010, 96, .   | 1.5  | 8         |
| 21 | Dual-Gate Graphene FETs With $f_{T}$ of 50 GHz. IEEE Electron Device Letters, 2010, 31, 68-70.   | 2.2  | 126       |
| 22 | Wafer-scale epitaxial graphene growth on the Si-face of hexagonal SiC (0001) for high frequency transistors. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2010, 28, 985-992. | 0.6  | 95        |
| 23 | Graphene and carbon nanotube photonics. , 2009, , .  |      | 0         |
| 24 | Behavior of a chemically doped graphene junction. Applied Physics Letters, 2009, 94, .   | 1.5  | 115       |
| 25 | Ultrafast graphene photodetector. Nature Nanotechnology, 2009, 4, 839-843.   | 15.6 | 2,748     |
| 26 | Operation of Graphene Transistors at Gigahertz Frequencies. Nano Letters, 2009, 9, 422-426.  | 4.5  | 982       |
| 27 | Utilization of a Buffered Dielectric to Achieve High Field-Effect Carrier Mobility in Graphene Transistors. Nano Letters, 2009, 9, 4474-4478.  | 4.5  | 341       |
| 28 | Chemical Doping and Electron-Hole Conduction Asymmetry in Graphene Devices. Nano Letters, 2009, 9, 388-392.  | 4.5  | 458       |
| 29 | Photocurrent Imaging and Efficient Photon Detection in a Graphene Transistor. Nano Letters, 2009, 9, 1039-1044.  | 4.5  | 543       |
| 30 | Development of graphene FETs for high frequency electronics. , 2009, , .   |      | 22        |
| 31 | Electrical observation of subband formation in graphene nanoribbons. Physical Review B, 2008, 78, .  | 1.1  | 199       |
| 32 | Strong Suppression of Electrical Noise in Bilayer Graphene Nanodevices. Nano Letters, 2008, 8, 2119-2125.  | 4.5  | 365       |
| 33 | Oxide-Induced Noise in Carbon Nanotube Devices. Device Research Conference, IEEE Annual, 2007, , .   | 0.0  | 0         |
| 34 | Impact of oxide substrate on electrical and optical properties of carbon nanotube devices. Nanotechnology, 2007, 18, 295202.   | 1.3  | 47        |
| 35 | 1/f Noise in Carbon Nanotube Devices-On the Impact of Contacts and Device Geometry. IEEE Nanotechnology Magazine, 2007, 6, 368-373.  | 1.1  | 38        |
| 36 | Gate Work Function Engineering for Nanotube-Based Circuits. Digest of Technical Papers - IEEE International Solid-State Circuits Conference, 2007, , .   | 0.0  | 6         |

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|----|---|-----|-----------|
| 37 | Nanowires. , 2007, , 113-160.   |     | 9         |
| 38 | Electrical transport and noise in semiconducting carbon nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 72-77.                          | 1.3 | 27        |
| 39 | Graphene nano-ribbon electronics. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 40, 228-232.   | 1.3 | 1,410     |
| 40 | Low-Frequency Current Fluctuations in Individual Semiconducting Single-Wall Carbon Nanotubes. Nano Letters, 2006, 6, 930-936.                                       | 4.5 | 122       |
| 41 | An Integrated Logic Circuit Assembled on a Single Carbon Nanotube. Science, 2006, 311, 1735-1735.   | 6.0 | 514       |
| 42 | Comparing Carbon Nanotube Transistorsâ€™The Ideal Choice: A Novel Tunneling Device Design. IEEE Transactions on Electron Devices, 2005, 52, 2568-2576.              | 1.6 | 291       |
| 43 | High-Performance Carbon Nanotube Field-Effect Transistor With Tunable Polarities. IEEE Nanotechnology Magazine, 2005, 4, 481-489.                                   | 1.1 | 440       |
| 44 | The Role of Metalâ€™Nanotube Contact in the Performance of Carbon Nanotube Field-Effect Transistors. Nano Letters, 2005, 5, 1497-1502.                              | 4.5 | 621       |
| 45 | High-performance dual-gate carbon nanotube FETs with 40-nm gate length. IEEE Electron Device Letters, 2005, 26, 823-825.  | 2.2 | 107       |
| 46 | Nanowires. , 2004, , 99-146.  |     | 12        |
| 47 | Ambipolar-to-Unipolar Conversion of Carbon Nanotube Transistors by Gate Structure Engineering. Nano Letters, 2004, 4, 947-950.                                      | 4.5 | 119       |
| 48 | Nanowires. , 2004, , 99-145.  |     | 3         |
| 49 | Determination of carrier density in Te-doped Bi nanowires. Applied Physics Letters, 2003, 83, 3567-3569.  | 1.5 | 12        |
| 50 | Thermoelectric properties of superlattice nanowires. Physical Review B, 2003, 68, .   | 1.1 | 295       |
| 51 | Making electrical contacts to nanowires with a thick oxide coating. Nanotechnology, 2002, 13, 653-658.  | 1.3 | 124       |
| 52 | Transport Properties of Superlattice Nanowires and Their Potential for Thermoelectric Applications. Materials Research Society Symposia Proceedings, 2002, 737, 11. | 0.1 | 2         |
| 53 | Transport Properties and Observation of Semimetal-Semiconductor Transition in Bi-based Nanowires. Materials Research Society Symposia Proceedings, 2002, 737, 385.  | 0.1 | 1         |
| 54 | Thermoelectric Nanowires By Template Synthesis: Fabrication, Contacts and Properties. Materials Research Society Symposia Proceedings, 2002, 739, 7241.             | 0.1 | 0         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 55 | Semimetal-semiconductor transition in Bi <sub>1-x</sub> Sb <sub>x</sub> alloy nanowires and their thermoelectric properties. Applied Physics Letters, 2002, 81, 2403-2405. | 1.5 | 170       |
| 56 | Anomalously high thermoelectric figure of merit in Bi <sub>1-x</sub> Sb <sub>x</sub> nanowires by carrier pocket alignment. Applied Physics Letters, 2001, 79, 81-83.      | 1.5 | 234       |
| 57 | 4-Point Resistance Measurements of Individual Bi Nanowires. Materials Research Society Symposia Proceedings, 2001, 635, C5.7.1.  | 0.1 | 5         |
| 58 | Electronic Properties of Bismuth Nanowires. Materials Research Society Symposia Proceedings, 2001, 679, 1.   | 0.1 | 1         |
| 59 | Thermoelectric Transport Properties of Individual Bismuth Nanowires. Materials Research Society Symposia Proceedings, 2001, 691, 1.  | 0.1 | 0         |
| 60 | Thermoelectric Properties of Bi <sub>1-x</sub> Sb <sub>x</sub> Nanowire Arrays. Materials Research Society Symposia Proceedings, 2001, 691, 1.                             | 0.1 | 1         |
| 61 | Thermoelectric Nanowires by Electrochemical Deposition. Materials Research Society Symposia Proceedings, 2001, 691, 1.   | 0.1 | 2         |
| 62 | Fabrication, structure, and transport properties of nanowires. Advances in Chemical Engineering, 2001, 27, 167-203.  | 0.5 | 7         |
| 63 | Transport properties of Bi <sub>1-x</sub> Sb <sub>x</sub> alloy nanowires synthesized by pressure injection. Applied Physics Letters, 2001, 79, 677-679.                   | 1.5 | 49        |
| 64 | Transport properties of antimony nanowires. Physical Review B, 2001, 63, .   | 1.1 | 62        |
| 65 | Nanofabrication Using Self-Assembled Alumina Templates. Materials Research Society Symposia Proceedings, 2000, 636, 471.   | 0.1 | 8         |
| 66 | Transport properties of Bi nanowire arrays. Applied Physics Letters, 2000, 76, 3944-3946.  | 1.5 | 177       |
| 67 | Theoretical investigation of thermoelectric transport properties of cylindrical Bi nanowires. Physical Review B, 2000, 62, 4610-4623.                                      | 1.1 | 483       |
| 68 | Bismuth nanowire arrays: Synthesis and galvanomagnetic properties. Physical Review B, 2000, 61, 2921-2930.   | 1.1 | 329       |
| 69 | Experimental investigation of thermoelectric properties of Bi <sub>1-x</sub> Sb <sub>x</sub> nanowire arrays. , 0, , .   |     | 0         |
| 70 | Segmented nanowires: a theoretical study of thermoelectric properties. , 0, , .  |     | 1         |