# Toh-Ming Lu

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8904826/publications.pdf

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|---|---|---|---|
| 71 papers | 2,239 citations | 236612 25 h-index | 223531 46 g-index |
| 72 all docs | 72 docs citations | 72 times ranked | 4360 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Room-temperature electrically switchable spinâ€“valley coupling in a van der Waals ferroelectric halide perovskite with persistent spin helix. Nature Photonics, 2022, 16, 529-537. | 15.6 | 35 |
| 2 | Orientation-Controlled Large-Area Epitaxial PbI2 Thin Films with Tunable Optical Properties. ACS Applied Materials & Interfaces, 2021, 13, 32450-32460. | 4.0 | 6 |
| 3 | Domain boundaries in incommensurate epitaxial layers on weakly interacting substrates. Journal of Applied Physics, 2021, 130, 065301. | 1.1 | 5 |
| 4 | Monolayer MoS<sub>2</sub> on sapphire: an azimuthal reflection high-energy electron diffraction perspective. 2D Materials, 2021, 8, 025003. | 2.0 | 26 |
| 5 | Large scale epitaxial graphite grown on twin free nickel(111)/spinel substrate. CrystEngComm, 2020, 22, 119-129. | 1.3 | 7 |
| 6 | A Reconfigurable Remotely Epitaxial VO<sub>2</sub> Electrical Heterostructure. Nano Letters, 2020, 20, 33-42. | 4.5 | 33 |
| 7 | Contact potential induced carrier localization in nanometer-thin Cu/Ru, Cu/Co, and Cu/Mo superlattices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, . | 0.9 | 1 |
| 8 | Growth front smoothing effects in extremely high pressure vapor deposition. Scientific Reports, 2020, 10, 12355. | 1.6 | 2 |
| 9 | Anisotropic band structure of TiS3 nanoribbon revealed by polarized photocurrent spectroscopy. Applied Physics Letters, 2020, 117, . | 1.5 | 8 |
| 10 | Heteroepitaxy of High-Mobility Germanium on Sapphire (0001) with Magnetron Sputtering. ACS Applied Electronic Materials, 2020, 2, 1635-1644. | 2.0 | 1 |
| 11 | High-Crystallinity Epitaxial Sb<sub>2</sub>Se<sub>3</sub> Thin Films on Mica for Flexible Near-Infrared Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 35222-35231. | 4.0 | 47 |
| 12 | A chiral switchable photovoltaic ferroelectric 1D perovskite. Science Advances, 2020, 6, eaay4213. | 4.7 | 119 |
| 13 | Unit-Cell-Thick Oxide Synthesis by Film-Based Scavenging. Journal of Physical Chemistry C, 2020, 124, 8394-8400. | 1.5 | 4 |
| 14 | An Environmentally Stable and Leadâ€Free Chalcogenide Perovskite. Advanced Functional Materials, 2020, 30, 2001387. | 7.8 | 52 |
| 15 | Epitaxial CdTe Thin Films on Mica by Vapor Transport Deposition for Flexible Solar Cells. ACS Applied Energy Materials, 2020, 3, 4589-4599. | 2.5 | 24 |
| 16 | Tuning phase transition kinetics via van der Waals epitaxy of single crystalline VO2 on hexagonal-BN. Journal of Crystal Growth, 2020, 543, 125699. | 0.7 | 8 |
| 17 | Carrier lifetime enhancement in halide perovskite via remote epitaxy. Nature Communications, 2019, 10, 4145. | 5.8 | 93 |
| 18 | Large Metallic Vanadium Disulfide Ultrathin Flakes for Spintronic Circuits and Quantum Computing Devices. ACS Applied Nano Materials, 2019, 2, 3684-3694. | 2.4 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Traditional Semiconductors in the Two-Dimensional Limit. Physical Review Letters, 2018, 120, 086101. | 2.9 | 52 |
| 20 | Utilizing van der Waals Slippery Interfaces to Enhance the Electrochemical Stability of Silicon Film Anodes in Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 13442-13451. | 4.0 | 48 |
| 21 | Single-Crystal Graphene-Directed van der Waals Epitaxial Resistive Switching. ACS Applied Materials & Interfaces, 2018, 10, 6730-6736. | 4.0 | 7 |
| 22 | Quasi van der Waals epitaxy of copper thin film on single-crystal graphene monolayer buffer. Journal Physics D: Applied Physics, 2018, 51, 095301. | 1.3 | 9 |
| 23 | van der Waals epitaxial ZnTe thin film on single-crystalline graphene. Journal of Applied Physics, 2018, 123, . | 1.1 | 11 |
| 24 | The Development of the Charge Transport Model To Predict Dielectric Failure. , 2018, , . | | 1 |
| 25 | Theoretical and Experimental Insight into the Mechanism for Spontaneous Vertical Growth of ReS 2 Nanosheets. Advanced Functional Materials, 2018, 28, 1801286. | 7.8 | 35 |
| 26 | van der Waals Epitaxy of Antimony Islands, Sheets, and Thin Films on Single-Crystalline Graphene. ACS Nano, 2018, 12, 6100-6108. | 7.3 | 38 |
| 27 | Coherent Phonon Transport Measurement and Controlled Acoustic Excitations Using Tunable Acoustic Phonon Source in GHz-sub THz Range with Variable Bandwidth. Scientific Reports, 2018, 8, 7054. | 1.6 | 7 |
| 28 | Metalorganic vapor phase epitaxy of large size CdTe grains on mica through chemical and van der Waals interactions. Physical Review Materials, 2018, 2, . | 0.9 | 12 |
| 29 | Method to Determine the Root Cause of Low- $kappa$ SiCOH Dielectric Failure Distributions. IEEE Electron Device Letters, 2017, 38, 119-122. | 2.2 | 1 |
| 30 | Decoupling interface effect on the phase stability of CdS thin films by van der Waals heteroepitaxy. Applied Physics Letters, 2017, 110, 041602. | 1.5 | 7 |
| 31 | van der Waals epitaxy of CdS thin films on single-crystalline graphene. Applied Physics Letters, 2017, 110, . | 1.5 | 24 |
| 32 | Probing the interface strain in a 3D-2D van der Waals heterostructure. Applied Physics Letters, 2017, 111, . | 1.5 | 7 |
| 33 | Van Der Waals Hybrid Perovskite of High Optical Quality by Chemical Vapor Deposition. Advanced Optical Materials, 2017, 5, 1700373. | 3.6 | 27 |
| 34 | A review on low dimensional metal halides: Vapor phase epitaxy and physical properties. Journal of Materials Research, 2017, 32, 3992-4024. | 1.2 | 18 |
| 35 | Revealing the Crystalline Integrity of Wafer-Scale Graphene on SiO<sub>2</sub>/Si: An Azimuthal RHEED Approach. ACS Applied Materials & Interfaces, 2017, 9, 23081-23091. | 4.0 | 27 |
| 36 | A two-step dry process for Cs<sub>2</sub>SnI<sub>6</sub> perovskite thin film. Materials Research Letters, 2017, 5, 540-546. | 4.1 | 40 |

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|---|---|---|---|
| 37 | Enhanced van der Waals epitaxy via electron transfer enabled interfacial dative bond formation. Physical Review Materials, 2017, 1, . | 0.9 | 4 |
| 38 | Nonlinear Electronâ€Lattice Interactions in a Wurtzite Semiconductor Enabled via Strongly Correlated Oxide. Advanced Materials, 2016, 28, 8975-8982. | 11.1 | 10 |
| 39 | Transitionâ€Metal Substitution Doping in Synthetic Atomically Thin Semiconductors. Advanced Materials, 2016, 28, 9735-9743. | 11.1 | 208 |
| 40 | Photon Transport in One-Dimensional Incommensurately Epitaxial CsPbX<sub>3</sub> Arrays. Nano Letters, 2016, 16, 7974-7981. | 4.5 | 124 |
| 41 | Aging of Transition Metal Dichalcogenide Monolayers. ACS Nano, 2016, 10, 2628-2635. | 7.3 | 359 |
| 42 | Modular Approach for Metalâ€“Semiconductor Heterostructures with Very Large Interface Lattice Misfit: A First-Principles Perspective. Crystal Growth and Design, 2016, 16, 2328-2334. | 1.4 | 7 |
| 43 | A Method Toward Fabricating Semiconducting 3R-NbS<sub>2</sub> Ultrathin Films. Journal of Physical Chemistry C, 2015, 119, 19763-19771. | 1.5 | 50 |
| 44 | Single-Crystal CdTe Homojunction Structures for Solar Cell Applications. Journal of Electronic Materials, 2015, 44, 3118-3123. | 1.0 | 12 |
| 45 | Surface area and porosity in obliquely grown photocatalytic titanium dioxide for air purification. Journal of Applied Physics, 2014, 115, . | 1.1 | 7 |
| 46 | CdTe/ZnTe/GaAs Heterostructures for Single-Crystal CdTe Solar Cells. Journal of Electronic Materials, 2014, 43, 2895-2900. | 1.0 | 25 |
| 47 | Evidence of enhanced electron-phonon coupling in ultrathin epitaxial copper films. Applied Physics Letters, 2013, 103, . | 1.5 | 31 |
| 48 | Vertically aligned biaxially textured molybdenum thin films. Journal of Applied Physics, 2011, 110, . | 1.1 | 7 |
| 49 | RHEED Pole Figure Measurements of Biaxial Thin Film Growth Front Evolution. Materials Research Society Symposia Proceedings, 2011, 1308, 40201. | 0.1 | 0 |
| 50 | Kinetics of Ta ions penetration into porous low-k dielectrics under bias-temperature stress. Applied Physics Letters, 2010, 96, 222901. | 1.5 | 20 |
| 51 | Coherent acoustic vibrations in silicon submicron spiral arrays. Journal of Applied Physics, 2009, 106, 033517. | 1.1 | 4 |
| 52 | Residual Stress Reduction in Sputter Deposited Thin Films by Density Modulation. Materials Research Society Symposia Proceedings, 2009, 1224, 1. | 0.1 | 6 |
| 53 | Reflection High-energy Electron Diffraction Study of Nanostructures: From Diffraction Patterns to Surface Pole Figure. Materials Research Society Symposia Proceedings, 2009, 1184, 62. | 0.1 | 1 |
| 54 | Novel Ultrathin Mg Nanoblades for Hydrogen Storage. Materials Research Society Symposia Proceedings, 2009, 1216, 1. | 0.1 | 0 |

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|---|---|---|---|
| 55 | Growth of CdTe Films on Amorphous Substrates Using CaF2 Nanorods as a Buffer Layer. Journal of Electronic Materials, 2009, 38, 1600-1604. | 1.0 | 6 |
| 56 | Introduction of molecular scale porosity into semicrystalline polymer thin films using supercritical carbon dioxide. Applied Physics Letters, 2009, 94, 121908. | 1.5 | 7 |
| 57 | Effects of three-dimensional Ehrlich-Schwoebel barrier on texture selection during Cu nanorod growth. Applied Physics Letters, 2007, 91, 121914. | 1.5 | 16 |
| 58 | Low temperature melting of copper nanorod arrays. Journal of Applied Physics, 2006, 99, 064304. | 1.1 | 81 |
| 59 | Enhanced photoemission from nanostructured surface topologies. Applied Physics Letters, 2006, 89, 193116. | 1.5 | 9 |
| 60 | Water electrolysis activated by Ru nanorod array electrodes. Applied Physics Letters, 2006, 88, 263106. | 1.5 | 42 |
| 61 | Stress reduction in sputter deposited films using nanostructured compliant layers by high working-gas pressures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 986-990. | 0.9 | 43 |
| 62 | Enhanced step coverage by oblique angle physical vapor deposition. Journal of Applied Physics, 2005, 97, 124504. | 1.1 | 57 |
| 63 | Stress reduction in tungsten films using nanostructured compliant layers. Journal of Applied Physics, 2004, 96, 5740-5746. | 1.1 | 63 |
| 64 | Î²-phase tungsten nanorod formation by oblique-angle sputter deposition. Applied Physics Letters, 2003, 83, 3096-3098. | 1.5 | 116 |
| 65 | Unique structure/properties of chemical vapor deposited parylene E. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1445-1449. | 0.9 | 20 |
| 66 | Fabrication and Imaging of Protein Crossover Structures. Materials Research Society Symposia Proceedings, 2002, 735, 361. | 0.1 | 0 |
| 67 | Tera Tool [terahertz time-domain spectroscopy]. IEEE Circuits and Devices: the Magazine of Electronic and Photonic Systems, 2002, 18, 23-28. | 0.8 | 22 |
| 68 | Measurement of the dielectric constant of thin films using goniometric time-domain spectroscopy. AIP Conference Proceedings, 2001, , . | 0.3 | 0 |
| 69 | Dielectric constant measurement of thin films using goniometric terahertz time-domain spectroscopy. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 624-629. | 1.9 | 18 |
| 70 | Dielectric, Conducting, and Photonic Polymers for Devices in Multichip Packaging. Materials Research Society Symposia Proceedings, 1989, 154, 387. | 0.1 | 0 |
| 71 | Lithography for sub>30 nm design rules: materials challenges. , 0, , . | | 0 |