



Lauren Hoang

Ph.D. Student in Electrical Engineering, admitted Autumn 2021

Bio

LINKS

- Pop Lab: <https://poplab.stanford.edu/index.html>
- Mannix Lab: <https://www.2d-matsci.com/home>
- Google Scholar: <https://scholar.google.com/citations?user=3TjcYKQAAAAJ&hl=en&authuser=1>

Publications

PUBLICATIONS

- **Low resistance p-type contacts to monolayer WSe₂ through chlorinated solvent doping.** *Nature communications*
Hoang, L., Bennett, R. K., Hoang, A. T., Peña, T., Zhang, Z., Hocking, M., Saunders, A. P., Jaikissoon, M., Liu, F., Pop, E., Mannix, A. J.
2026; 17 (1): 718
- **Understanding the Impact of Contact-Induced Strain on the Electrical Performance of Monolayer WS₂ Transistors.** *Nano letters*
Hoang, L., Jaikissoon, M., Koroğlu, Ç., Zhang, Z., Bennett, R. K., Song, J. H., Yang, J. A., Ko, J. S., Brongersma, M. L., Saraswat, K. C., Pop, E., Mannix, A. J.
2024
- **Chemically Tailored Growth of 2D Semiconductors via Hybrid Metal-Organic Chemical Vapor Deposition.** *ACS nano*
Zhang, Z., Hoang, L., Hocking, M., Peng, Z., Hu, J., Zaborski, G., Reddy, P. D., Dollard, J., Goldhaber-Gordon, D., Heinz, T. F., Pop, E., Mannix, A. J.
2024
- **Effect of Back-Gate Dielectric on Indium Tin Oxide (ITO) Transistor Performance and Stability** *IEEE TRANSACTIONS ON ELECTRON DEVICES*
Daus, A., Hoang, L., Gilardi, C., Wahid, S., Kwon, J., Qin, S., Ko, J., Islam, M., Kumar, A., Neilson, K. M., Saraswat, K. C., Mitra, S., Wong, et al
2023; 70 (11): 5685-5689
- **Spatio-Kinetic Electronic Heterogeneity in MoS₂ Revealed by Ultrafast Electron Microscopy: Implications for Optoelectronics** *ACS APPLIED NANO MATERIALS*
Alcorn, F. M., Ellis, S. R., Perez, C., Hoang, L., Smoll, E. J., Fuller, E. J., Mannix, A. J., Pop, E., Chandler, D. W., Talin, A., Leonard, F., Kumar, S.
2026
- **Synthesis-Related Nanoscale Defects in Mo-Based Janus Monolayers Revealed by Cross-Correlated AFM and TERS Imaging.** *Small (Weinheim an der Bergstrasse, Germany)*
Zhang, T., Krayev, A., Yang, T. H., Mao, N., Hoang, L., Wang, Z., Liu, H., Peng, Y. R., Zhu, Y., Zheng, X., Isotta, E., Kira, M. E., Righi, et al
2025: e2504742
- **Excitation Laser Energy Dependence of the Gap-Mode TERS Spectra of WS₂ and MoS₂ on Silver** *ACS PHOTONICS*
Krayev, A., Isotta, E., Hoang, L., Yang, J. A., Neilson, K., Wang, M., Haughn, N., Pop, E., Mannix, A., Balogun, O., Wang, C.
2025

- **Mobility and threshold voltage extraction in transistors with gate-voltage-dependent contact resistance** *NPJ 2D MATERIALS AND APPLICATIONS*
Bennett, R. K. A., Hoang, L., Cremers, C., Mannix, A. J., Pop, E.
2025; 9 (1)
- **Deep Learning to Automate Fitting and Parameter Extraction of 2D Transistors**
Bennett, R. K. A., Gault, H. F., Khan, A., Hoang, L., Pena, T., Neilson, K., Song, Y., Zhang, Z., Mannix, A. J., Pop, E., IEEE
IEEE.2025: 122-123
- **Resolving the Electron Plume within a Scanning Electron Microscope.** *ACS nano*
Alcorn, F. M., Perez, C., Smoll, E. J., Hoang, L., Nitta, F. U., Mannix, A. J., Talin, A. A., Nakakura, C. Y., Chandler, D. W., Kumar, S.
2024
- **Biaxial Tensile Strain Enhances Electron Mobility of Monolayer Transition Metal Dichalcogenides.** *ACS nano*
Yang, J. A., Bennett, R. K., Hoang, L., Zhang, Z., Thompson, K. J., Michail, A., Parthenios, J., Papagelis, K., Mannix, A. J., Pop, E.
2024
- **Flexible Monolayer WS₂-based Pseudo-CMOS Inverters for In-sensor Computing**
Yang, J. A., Bora, A., Daus, A., Hoang, L., Zhang, Z., Mannix, A. J., Pop, E., IEEE
IEEE.2024
- **Thiol-based defect healing of WSe₂ and WS₂** *NPJ 2D MATERIALS AND APPLICATIONS*
Schwarz, A., Alon-Yehezkel, H., Levi, A., Yadav, R., Majhi, K., Tzuriel, Y., Hoang, L., Bailey, C. S., Brumme, T., Mannix, A. J., Cohen, H., Yalon, E., Heine, et al
2023; 7 (1)