

JOURNAL PUBLICATIONS & SPECIAL HIGHLIGHTS:

1. Agashiwala K, Jiang J, Kumar, A, **Yeh, C.-H.**, Banerjee, K., Sustaining Moore's Law with graphene. *Chip Scale Review*, November/December, 2021 (ChipScaleReview.com)
2. Parto, K., Pal, A., Chavan, T., Agashiwala, K., **Yeh, C.-H.**, Cao, W., Banerjee, K., One-Dimensional Edge Contacts to Two-Dimensional Transition-Metal Dichalcogenides: Uncovering the Role of Schottky-Barrier Anisotropy in Charge Transport across MoS₂/Metal Interfaces. *Phys. Rev. Appl.*, 2021, 15, 064068. (IF=4.194, <https://doi.org/10.1103/PhysRevApplied.15.064068>)
3. ***Yeh, C.-H.**; *Zhang D. J.; Cao W.; Banerjee, K. 0.5T0.5R - Introducing an Ultra-Compact Memory Cell Enabled by Shared Graphene Edge Graphene Edge-Contact and h-BN Insulator. *IEEE International Electron Devices Meeting*, 2020, 12.3.1–12.3.4. (*equal contribution) ([10.1109/IEDM13553.2020.9371902](https://doi.org/10.1109/IEDM13553.2020.9371902))
4. *Zhang D. J.; ***Yeh, C.-H.**; Cao W.; Banerjee, K. 0.5T0.5R - An Ultra-Compact RRAM Cell Uniquely Enabled by van der Waals Heterostructures. *IEEE Trans. Electron Devices*, 2020, 68, 2033-2040. (*equal contribution) (IF=2.913, [10.1109/TED.2021.3057598](https://doi.org/10.1109/TED.2021.3057598))
- Ø **Highlighted** by *Nature Electronics* “Transistors and memory get together” (Vol. 4, 321, May 2021)
[nature.com/articles/s41928-021-00596-8](https://www.nature.com/articles/s41928-021-00596-8)
5. Agashiwala, K.; Jiang, K.; **Yeh, C.-H.**; Parto, K.; Zhang D. J.; Banerjee, K. Reliability and Performance of Multi-Level Subtractive Etched CMOS-compatible Graphene Interconnects. *IEEE International Electron Devices Meeting*, 2020, 31.1.1-31.1.4. ([10.1109/IEDM13553.2020.9371986](https://doi.org/10.1109/IEDM13553.2020.9371986))
6. Agashiwala, K.; Jiang, K.; Parto, K.; Zhang D. J.; **Yeh, C.-H.**; Banerjee, K. Demonstration of CMOS-Compatible Multi-Level Graphene Interconnects With Metal Vias. *IEEE Trans. Electron Devices*, 2020, 68, 2083-2091. (IF=2.913, [10.1109/TED.2021.3061637](https://doi.org/10.1109/TED.2021.3061637))
7. **Yeh, C.-H.**; Liang, Z. Y.; Lin Y. C., Ma C. H., Chu, Y. H.; Suenaga, K.; Chiu. P. W. Scalable T-Gate Aligned Gr-WS₂-Gr Radio-Frequency Field-Effect Transistors. *ACS Appl. Electron. Mater.*, 2020, 2, 3898-3905. (<https://doi.org/10.1021/acsaelm.0c00742>)

8. **Yeh, C.-H.**; Liang Z.-Y.; Lin Y.-C.; Chen H. C.; Fan T.; Ma C. H.; Chu Y. H.; Suenaga K., Chiu, P.-W. Graphene–Transition Metal Dichalcogenide Heterojunctions for Scalable and Low-Power Complementary Integrated Circuits. *ACS Nano*, 2020, 14, 985-992.
(IF= 14.588, <https://doi.org/10.1021/acsnano.9b08288>)
9. Cao W.; Huang M.; **Yeh C.-H.**; Parto K.; Banerjee K. Impact of Transport Anisotropy on the Performance of van der Waals Materials-Based Electron Devices . *IEEE Trans. Electron Devices*, 2020, 63, 1310-1316. (IF=2.913, [10.1109/TED.2020.2970394](https://doi.org/10.1109/TED.2020.2970394))
10. ***Yeh, C.-H.**; *Wei C, Pal, A.; Parto, K; and Banerjee K. Area-Selective-CVD Technology Enabled Top-Gated and Scalable 2D-Heterojunction Transistors with Dynamically Tunable Schottky Barrier. *IEEE International Electron Devices Meeting* (Tech. Dig.), 2019, 23.3.1-23.4.4. (*equal contribution) ([10.1109/IEDM19573.2019.8993600](https://doi.org/10.1109/IEDM19573.2019.8993600))
11. Chu, C. H.; Lin, H. C.; **Yeh, C.-H.**; Liang, Z. Y.; Chou M. Y.; Chiu P. W. End-Bonded Metal Contacts on WSe₂ Field-Effect Transistors. *ACS Nano*, 2019, 13, 8146–8154.
(IF= 15.881, <https://doi.org/10.1021/acsnano.9b03250>)
12. **Yeh, C.-H.**; Teng, P. Y.; Chiu, Y. C.; Hsiao, W. Ting.; Hsu, Shawn S. H.; Chiu, P.W. Gigahertz Field-Effect Transistors with CMOS-Compatible Transfer-Free Graphene. *ACS Appl. Mater. Interfaces*, 2019, 11, 6336-6343. (IF= 8.758, <https://doi.org/10.1021/acsnano.8b09032>)
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(IF= 15.881, <https://doi.org/10.1021/acsnano.8b04979>)
15. Alencar, T.V.; von Dreifus, D.; Gabriela Cota Moreira, M.; Eliel, G.S.N.; **Yeh, C.-H.**; Chiu, P.-W.; Pimenta, M.A.; Malard, L.M. and Maria de Paula, A. Twisted bilayer graphene photoluminescence emission peaks at van Hove singularities, *Journal of Physics: Condensed Matter*, 2018, 30, 175302 (2018).
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Photodetectors. *ACS Appl. Mater. Interfaces*, 2017, 9, 36181-36188.

(IF= 9.229, <https://doi.org/10.1021/acsami.7b10892>)

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