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Academic Qualifications

PhD in Engineering, University of Cambridge, UK (03/2018)

BEng in Solid-State Electronics, University of Electronic Science and Technology of China, China (07/2013)

Present & Previous Academic Positions Held

Assistant Professor, Department of Electronic Engineering, CUHK, Hong Kong SAR (06/2019-)

Research Associate/Assistant, Cambridge Graphene Centre, Cambridge, UK (09/2017-01/2019)

Research Interests

Solution-processing and functional printing of low-dimensional materials, and exploring their application in flexible electronics, neuromorphic electronics, optoelectronics, and sensors.

Publications

Authored/co-authored >30 peer-reviewed journal papers, and 1 research book, with a total citation of >4,000 and an h-index of 28; *Google Scholar*, as of 02/2024.

(# denotes the corresponding author)

Section A - Five publications on printed electronics in recent five years:

1. S. Liu, X. Fan, Y. Wen, P. Liu, Y. Liu, J. Pei, W. Yang, L. Song, D. Pan, T. Ma, Y. Lin, G. Wang[#], G. Hu[#], Conduction modulation of solution-processed two-dimensional materials, *Adv. Electron. Mater.* 2300799 (2024).
2. L. Song, P. Liu, J. Pei, F. Bai, Y. Liu, S. Liu, Y. Wen, L. W. T. Ng, K.-P. Pun, S. Gao, M. Q.-H. Meng, T. Hasan, G. Hu[#], Spiking neurons with neural dynamics implemented using stochastic memristors, *Adv. Electron. Mater.* 2300564 (2024).
3. W. Chen, L. Song, S. Wang, Z. Zhang, G. Wang, G. Hu, S. Gao[#], Essential characteristics of memristors for neuromorphic computing, *Adv. Electron. Mater.* 2200833 (2023).
4. S. Wang, L. Song, W. Chen, G. Wang, E. Hao, C. Li, Y. Hu, Y. Pan, A. Nathan, G. Hu, S. Gao[#], Memristor-based intelligent human-like neural computing, *Adv. Electron. Mater.* 2200877 (2023).
5. G. Hu^{*}, L. Yang^{*}, Z. Yang, Y. Wang, X. Jin, J. Dai, Q. Wu, S. Liu, X. Zhu, X. Wang, T.-C. Wu, R. Howe, T. Albrow-Owen, L. W. T. Ng, Q. Yang, L. G. Occhipinti, R. I. Woodward, E. J. R. Kelleher, Z. Sun, X. Huang, M. Zhang[#], C. D. Bain[#], T. Hasan[#], A general ink formulation of 2d crystals for wafer-scale inkjet printing, *Sci. Adv.* 6, eaba5029 (2020).

Section B - Five other publications may or may not be beyond the five-year period:

6. L. W. T. Ng, G. Hu, R. Howe, X. Zhu, Z. Yang, C. Jones, T. Hasan[#], Functional Inks and Printing of Graphene and Related 2D Materials: Technology, Formulation and Applications, *Springer*, New York, USA (2019) [*invited book*].
7. G. Hu, J. Kang, L. W. T. Ng, X. Zhu, R. Howe, M. Hersam, T. Hasan[#], Functional inks and

- printing of two-dimensional materials, **Chem. Soc. Rev.** 47, 3265-3300 (2018).
8. G. Hu, T. Albrow-Owen, X. Jin, A. Ali, Y. Hu, R. Howe, K. Shehzad, Z. Yang, X. Zhu, R. I. Woodward, T-C. Wu, H. Jussila, J-B. Wu, P. Peng, P. Tan, Z. Sun, E. J. R. Kelleher, M. Zhang[#], Y. Xu[#], T. Hasan[#], Black phosphorus ink formulation for inkjet printing of optoelectronics and photonics, **Nat. Commun.** 8, 278 (2017).
 9. X. Jin*, G. Hu*, M. Zhang, Y. Hu, T. Albrow-Owen, R. Howe, T.-C. Wu, Q. Wu, Z. Zheng[#], T. Hasan, 102 fs pulse generation from a long-term stable, inkjet-printed black phosphorus-mode-locked fiber laser, **Opt. Express** 26, 12506-12513 (2018).
 10. S. Santra*, G. Hu*, R. C. T. Howe, A. D. Luca, S. Z. Ali, S. K. Ray, F. Udrea, J. W. Gardner, P. K. Guha, T. Hasan[#], CMOS integration of graphene for humidity sensing, **Sci. Rep.** 5, 17374 (2015).

Selected Academic Services

Youth Editor, Journal "Photonic Sensors", 04/2023-

Project application reviewer, ANR, RGC, Guangdong Province Science and Technology, 06/2019-

Peer-reviewer, Journals *Nature Electronics*, *Science Advances*, *Advanced Materials*, *Nano Letters*, etc., 06/2019-

Teaching

Instructor, Neuromorphic Hardware, and Solar Cells and beyond for Low-Carbon Energy (Graduate course)

Instructor, Physics and Technology of Semiconductor Devices, and Engineering Physics (Undergraduate course)