# Assistant Professor OU, QINGDONG

Department of Materials Science and Engineering, Faculty of Innovation Engineering Macau University of Science and Technology

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# **Academic Qualification**

Ph.D. in Materials Science and Engineering, Monash University, Australia M.S. in Nano Science and Technology, Soochow University, China B.S. in Chemistry, Soochow University, China

**Teaching Area** 

Materials Science and Engineering

# **Research Area**

Nanophotonics and plasmonics Near-field optics and polaritonics Semiconductor optoelectronics Two-dimensional materials

### **Working Experience**

2022 - present, Assistant Professor, Macau University of Science and Technology 2019 - 2022, Research Fellow, Monash University

### **Academic Publication (selected)**

J. Lv†, Y. Wu\*†, J. Liu†, Y. Gong, G. Si, G. Hu, Q. Zhang, Y. Zhang, J.-X. Tang, M. S. Fuhrer, H. Chen, S. A. Maier, C.-W. Qiu\*, **Q. Ou**\*, Hyperbolic polaritonic crystals with configurable low-symmetry Bloch modes. **Nature Communications 2023**, 14, 3894. Q. Zhang†, **Q. Ou**\*†, G. Si, G. Hu, S. Dong, Y. Chen, J. Ni, C. Zhao, M. S. Fuhrer, Y. Yang, A. Alu\*, R.

Q. Zhang<sup>†</sup>, Q. Ou<sup>\*</sup><sup>†</sup>, G. Si, G. Hu, S. Dong, Y. Chen, J. Ni, C. Zhao, M. S. Fuhrer, Y. Yang, A. Alu<sup>\*</sup>, R. Hillenbrand<sup>\*</sup>, C. W. Qiu<sup>\*</sup>, Unidirectionally excited phonon polaritons in high-symmetry orthorhombic crystals. Science Advances 2022, 8, eabn9774.
G. Hu<sup>†</sup>, Q. Ou<sup>†</sup>, G. Si, Y. Wu, J. Wu, Z. Dai, A. Krasnok, Y. Mazor, Q. Zhang, Q. Bao<sup>\*</sup>, C.-W. Qiu<sup>\*</sup>, A.

G. Hu<sup>+</sup>, **Q. Ou**<sup>+</sup>, G. Si, Y. Wu, J. Wu, Z. Dai, A. Krasnok, Y. Mazor, Q. Zhang, Q. Bao<sup>\*</sup>, C.-W. Qiu<sup>\*</sup>, A. Alu<sup>\*</sup>, Topological polaritons and photonic magic angles in twisted  $\alpha$ -MoO3 bilayers. **Nature 2020**, 582, 209. (Selected as Top 10 Breakthrough of the Year 2020 by *Physics World*)

209. (Selected as Top 10 Breakthrough of the Year 2020 by *Physics World*) Y. Wu†, **Q. Ou**†, Y. Yin, Y. Li, W. Ma, W. Yu, G. Liu\*, X. Cui, X. Bao, J. Duan, G. Álvarez-Pérez, Z. Dai, B. Shabbir, N. Medhekar, X. Li\*, C.-M. Li, P. Alonso-González, Q. Bao\*, Chemical switching of low-loss phonon polaritons in α-MoO3 by hydrogen intercalation. **Nature Communications 2020**, 11, 2646. **Q. Ou**†, Y. Zhang\*†, Z. Wang, J. A. Yuwono, R. Wang, Z. Dai, W. Li, C. Zheng, Z. Q. Xu, X. Qi, S. Duhm, N. V. Medhekar, H. Zhang\*, Q. Bao\*, Strong Depletion in Hybrid Perovskite p-n Junctions Induced by Local Electronic Doping. **Advanced Materials 2018**, 30, 1705792.

### **Professional Certification and Awards**

Nominee of the Prime Minister's Prizes for Science—Malcolm McIntosh Prize for Physical Scientist of the Year, Australia (Only one awardee each year), 2022



Vice-Chancellor's Award for Research Excellence by an Early Career Researcher, Monash University (Only one awardee each year), 2022 Australian Research Council Discovery Early Career Researcher Award, 2021 Chinese Government Award for Outstanding Self-financed Students Abroad, 2019 Science and Technology Award of Jiangsu Province (First Class Prize), China, 2018 Natural Science Award of Ministry of Education (Second Class Prize), China, 2017

# Professional Society Membership

Member, Australian Materials Research Society Member, Australian Nanotechnology Network Associate Editor, *Frontiers in Electronic Materials* | *Optoelectronic Materials* Topic Editor, *Energies*