
ADAM DAIZHEN WRIGHT

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APPOINTMENTS

University of Warwick, Assistant Professor Aug 2023 –
Establishing a research group to explore light-matter interactions.

Princeton University, Postdoctoral Research Associate Jul 2021 – Jun 2023
Developed a novel experimental technique to prepare and study polaritons in gas-phase systems.

University of Oxford, Postdoctoral Research Assistant Jan 2019 – Jun 2021
Experimental study of the factors influencing charge-carrier motion in metal halide perovskites.

EDUCATION

University of Oxford, DPhil Condensed Matter Physics 2015 – 2019

Imperial College London, MRes Plastic Electronic Materials – **Distinction (82 %)** 2014 – 2015

University of Cambridge, BA (Hons) & MSci Natural Sciences – **1st (72 %)** 2010 – 2014

AWARDS

Institute of Physics **Semiconductor Physics Thesis Prize** 2020

Mansfield College, Oxford **Junior Research Fellowship** 2018 – 2020

Nicholas Kurti Prize for distinguished work by a third year graduate student 2018

Corpus Christi College, Oxford **Senior Scholarship** 2017 – 2018

St Catharine's College, Cambridge **Senior Scholarship** 2014

TEACHING EXPERIENCE

Lecturer [PX399](#) The Earth and its Atmosphere (15 hours of lectures) 2024 –

Final-Year Project Marker [PX3A0](#) (BSc), [PX402](#) (MPhys) 2024 –

Lab Demonstrator [PX428](#), [PX442](#) 2023 –

Personal Tutor Small-group teaching [PX161](#) 2023 –

Stipendiary Lecturer Small-group teaching (Corpus Christi College, Oxford) 2020 – 2021

ACTIVITIES & RESPONSIBILITIES

Programme Committee, UK Semiconductors Conference 2022 –

Journal Reviewer: ➤ ACS Appl. Energy Mater. ➤ APL Mater. ➤ Appl. Phys. Lett. 2020–
➤ Commun. Phys. ➤ J. Mater. Chem. ➤ J. Phys. Chem. C ➤ J. Phys. Chem. Lett. ➤ J. Phys. Mater.
➤ Nat. Commun. ➤ Nat. Mater. ➤ Physica Scripta

Ordinary Member of the Institute of Physics **Semiconductor Physics Group Committee** 2020 –

Outreach: **Volunteer Assessor for CREST awards**, British Science Association 2020 –

REFERENCES

Prof. Mark Newton, Head of Department, Dept. of Physics, University of Warwick, Coventry, CV4 7AL, UK
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Prof. Marissa Weichman, Assistant Professor of Chemistry, Dept. of Chemistry, Princeton University, NJ 08544, USA
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Prof. Laura Herz, Professor of Physics, Dept. of Physics, University of Oxford, Oxford, OX1 3PU, UK
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PUBLICATION LIST

27 total. My **7 first-author journal articles** are shown below. For full list, see my [Google Scholar](#) or [ORCID](#).

7. **A. D. Wright**, J. C. Nelson, M. L. Weichman, A versatile platform for gas-phase molecular polaritons, *The Journal of Chemical Physics*, (2023), **159**, 164202.
Reports the extended capabilities of our gas-phase molecular polariton platform.
6. **A. D. Wright**, J. C. Nelson, M. L. Weichman, Rovibrational polaritons in gas-phase methane, *Journal of the American Chemical Society*, (2023), **145**, 5982–5987.
The first demonstration of molecular gas-phase polaritons, a new platform for chemistry under vibrational strong coupling.
5. **A. D. Wright**, J. B. Patel, M. B. Johnston, L. M. Herz, Temperature-dependent reversal of phase segregation in mixed-halide perovskites, *Advanced Materials*, (2023), **35**, 2210834.
Uncovers how both increases in temperature and light intensity can counteract the halide segregation process.
4. **A. D. Wright**, L. R. V. Buizza, K. J. Savill, G. Longo, H. J. Snaith, M. B. Johnston, L. M. Herz, Ultrafast excited-state localization in Cs₂AgBiBr₆ double perovskite, *The Journal of Physical Chemistry Letters*, (2021), **12**, 3352-3360.
Demonstrates the rapid self-trapping of photoexcited charge-carriers in the lead-free perovskite Cs₂AgBiBr₆.
3. **A. D. Wright**, G. Volonakis, J. Borchert, C. L. Davies, F. Giustino, M. B. Johnston, L. M. Herz, Intrinsic quantum confinement in formamidinium lead triiodide perovskite, *Nature Materials*, (2020), **19**, 1201-1206.
Discovery of a novel above-bandgap absorption feature, attributed to intrinsically-occurring quantum confinement.
2. **A. D. Wright**, R. L. Milot, G. E. Eperon, H. J. Snaith, M. B. Johnston, L. M. Herz, Band-tail recombination in hybrid lead iodide perovskite, *Advanced Functional Materials*, (2017), **27**, 1700860.
Shows the presence of an exponential trap-density tail of states in HC(NH₂)₂PbI₃ perovskite.
1. **A. D. Wright**, C. Verdi, R. L. Milot, G. E. Eperon, M. A. Pérez-Osorio, H. J. Snaith, F. Giustino, M. B. Johnston, L. M. Herz, Electron-phonon coupling in hybrid lead halide perovskites, *Nature Communications*, (2016), **7**, 11755.
Scattering from longitudinal optical phonons dominates electron-phonon coupling in room temperature perovskites.

CONFERENCE PRESENTATIONS

14. Materials Research Society Fall Meeting	Boston, Mass., USA	Oral	Nov 2023
13. American Chemical Society Spring Meeting	Indianapolis, Ind., USA	Oral	Mar 2023
12. UK Semiconductors Conference	Sheffield, UK	Invited	Jul 2022
11. American Physical Society March Meeting	Chicago, Ill., USA	Oral	Mar 2022
10. Materials Research Society Fall Meeting	Boston, Mass., USA	Oral	Dec 2021
9. Materials Research Society Spring Meeting	Online	Oral	Apr 2021
8. American Physical Society March Meeting	Online	Oral	Mar 2021
7. Materials Research Society Spring & Fall Meeting	Online	Oral	Dec 2020
6. nanoGe Fall Meeting	Online	Oral	Oct 2020
5. Asia-Pacific Int'l Conf. on Perovskite, Organic Photovoltaics and Optoelectronics	Tsukuba, Japan	Oral	Jan 2020
4. Materials Research Society Spring Meeting	Phoenix, Ariz., USA	Oral	Apr 2018
3. International Conference on Perovskite Photonics & Optoelectronics	Rennes, France	Oral	Feb 2018
2. KAUST Conference: Emerging Concepts & Materials in Solar Energy Conversion	Thuwal, Saudi Arabia	Oral	Nov 2016
1. 2nd International Conference on Perovskite Solar Cells & Optoelectronics	Genoa, Italy	Oral	Sep 2016

RESEARCH MENTORING EXPERIENCE

Jane Nelson	doctoral student	Princeton University	2022 – 2023
Victoria Zhang	undergraduate summer student	Harvard University	2022
Karim Elmetekawy	doctoral student	University of Oxford	2020 – 2021
Aleksander Ulatowski	doctoral student	University of Oxford	2019 – 2020
Michael Trimpl	master's student	Technical University of Munich	2018 – 2019
Alexander Knight	doctoral student	University of Oxford	2017 – 2018