

Andrew Burgess
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Academic Achievements:

- Received an Irish Research Council Postgraduate Scholarship.
- Awarded a Trinity Gold Medal for my undergraduate studies.
- Received an Amgen Scholarship for summer research at Kyoto University, 2019.
- Received a Trinity Scholarship in Physics and Maths, 2018.
- Received an Entrance Exhibition Award from Trinity College based on my Leaving Certificate, 2016.
- Received an Academic Excellence award from Wesley College based on my Leaving Certificate, 2016.
- Highly Commended in the Irish European Union Physics Olympiad, 2015.
- Received an Academic Excellence award from Wesley based on my Junior Cert.
- Awarded first place in the Physical Sciences Category of Scifest at IT Blanchardstown, in 2012 and 2011.

Education:

Trinity College, Dublin **2020-2024**
Physics PhD student (Quantum Theory of Materials Group)

Trinity College, Dublin **2016-2020**
B.A. in Nanoscience (First Class Honours)

Senior Sophister (2019), I received an overall First, with module breakdown:

Advanced Physical Chemistry	First
Advanced Materials Chemistry	First
Advanced Topics for Nanoscience	First
Nanoscience Research Project	First
Problem Solving in Nanoscience	First
Condensed Matter and Nanoscience	First
Modern Optics	First

Junior Sophister (2018), I received an overall First, with module breakdown:

Analytical Chemistry	First
Quantum Mechanical Concepts in Physical Chemistry	First
Condensed Matter Physics I	First
Quantum Mechanics	First
Electromagnetism	First
Condensed Matter Physics II	First
Molecular Thermodynamics and Kinetics	First
Solid State Materials	First
Practical in Advanced Materials	First

Wesley College, Dublin 16 **2010-2016**
Leaving Certificate 2016: 625 points (full marks)

Taney National School, Dublin 14 **2002-2010**

Personal Profile:

- **Research Skills-** Gained through my summer research work at Kyoto University where I lead my own research project on self-healing perovskite-polymer solar cells.
- **Teamwork Skills-** Developed through college team research projects, on topics including Superlubricity and Astrochemistry, outside of college I have also enhanced my teamwork skills through sports such as rugby and rowing.
- **Analytical Skills-** Developed through extra-curricular science projects for student competitions such as BT Young Scientist and Scifest.
- **Time Management-** Established through demanding Summer work at PwC as well as through college lab practicals, on topics such as surface tension, Langmuir-Blodgett films and adsorption.
- **Communication Skills-** Learnt proficient oral communication skills through my participation in Model United Nations as well as both Irish and English debating. I also have competent written skills, which I have displayed by winning the Wesley College Transition Year Literature Prize.

Work Place Intern Experience:

Quantum Energy Processes Group, Kyoto University

June-August 2019

- I was awarded an Amgen scholarship to carry out my own research project and choose the self-healing effect in methyl ammonium lead iodide with polymers.
- I carried out SEM and XRD analysis of my samples before and after water exposure and presented my findings at a poster session at the National University of Singapore with other Amgen scholars, I also gave a presentation of my results at Kyoto.

Quantum Theory of Materials Group, Trinity College

September-December 2019

- I completed a project on excitonic density-functional theory with a focus on improving the code's accuracy at quantifying the first singlet excited state energy of molecules.
- I produced a written dissertation on this research and presented my findings at a poster session and received a mark of 80%.

Interests and Achievements:

- Head Boy of Wesley College for the academic year 2015-2016.
- Won the Dan Quinn Shield as part of the Colours Rowing Event, 2017.
- Received the Frank Laird Memorial Prize for the best all round boy for the academic year 2015-2016.
- Reached the national final of the Irish Debating Pearse Cup, 2016.
- Organised two international Model United Nations Conferences in Wesley College and was awarded distinguished delegate awards at other competitions, including Royal Russel College London MUN and George Watson's College Edinburgh MUN.
- Won the Transition Year Super 10's Rugby Cup, 2014.
- Received honours in grade 8 piano.

Referees:

Available on Request