

# Volatile Organic Compound Detection Using Insect Odorant-Receptor Functionalised Field-Effect Transistors

by

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A thesis submitted in fulfilment of the  
requirements of the degree of  
Doctor of Philosophy in Physics  
School of Physical and Chemical Sciences  
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Feb 2023





# Acknowledgements

Thanks for all the fish.



# Abstract

This is a thesis skeleton written with quarto. Make a copy of this thesis repo and start to write!

Make a new paragraph by leaving a blank line.



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# 1 Introduction

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

[1] 2



## **2 Insect Odorant-Receptor Functionalised Carbon Nanotube and Graphene Field-Effect Transistor Biosensors**

### **2.1 Carbon Nanotube and Graphene Field-Effect Transistors**

### **2.2 Device Functionalisation**

### **2.3 Insect Odorant Receptors**



## 3 Fabrication

Stuff I did to get the results.



## 4 Non-Covalent Functionalisation of Carbon Nanotubes and Graphene with Odorant Receptors

### 4.1 Linker molecules

#### 4.1.1 1-Pyrenebutanoic acid N-hydroxysuccinimide ester (PBASE)

1-Pyrenebutanoic acid N-hydroxysuccinimide ester, also known as 1-Pyrenebutyric acid N-hydroxysuccinimide ester, is an aromatic solid commonly used for anchoring biomolecules to the carbon rings of graphene and carbon nanotubes. Chen *et al.* first used





## 5 Results

What I found out.

See for more detailed results



## 6 Results

What I found out.

See for more detailed results



## 7 Summary

In summary, this book has no content whatsoever.

[1] 2



## References

Knuth, Donald E. 1984. “Literate Programming.” *Comput. J.* 27 (2): 97–111. <https://doi.org/10.1093/comjnl/27.2.97>.

