

# PROJECT TITLE HERE

A Research Progress Report  
Presented to the Faculty of the  
Robert Frederick Smith School of  
Chemical and Biomolecular Engineering  
at Cornell University  
in Partial Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy

by  
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## CHAPTER 1 SPECIFIC AIMS

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### **1.1 Aim 1: Discover a new extremophilic organism.**

We would like to sample deep oceanic vents to find some new archaea that live at very high temperatures. Currently, the hottest known organism is *Methanopyrus kandleri* which can grow at 110°C<sup>3</sup>.

### **1.2 Aim 2: Get published for thinking of a cool shape.**

Similarly to recent fruitful efforts to discover a chiral aperiodic monotile<sup>4</sup>, we would also like to think up some really neat lil shapes and explore their mathematical properties.

## **CHAPTER 2**

### **RESEARCH PROPOSAL**

#### **2.1 Background and Rationale**

#### **2.2 Preliminary Data**

#### **2.3 Research Approach**

#### **2.4 Anticipated Outcomes**

##### **2.4.1 Intended Outcomes**

##### **2.4.2 Alternatives**

## BIBLIOGRAPHY

- 1 Cornell University, *Templates : Graduate School*, <https://gradschool.cornell.edu/academic-progress/thesis-dissertation/templates/>.
- 2 TeX Users Group, *TeX Live*, <https://www.tug.org/texlive/>.
- 3 M. Kurr, R. Huber, H. König, H. W. Jannasch, H. Fricke, A. Trincone, J. K. Kristjansson and K. O. Stetter, *Archives of Microbiology*, 1991, **156**, 239–247.
- 4 D. Smith, J. S. Myers, C. S. Kaplan and C. Goodman-Strauss, *A chiral aperiodic monotile*, 2023, <http://arxiv.org/abs/2305.17743>, arXiv:2305.17743 [cs, math].