

# 1 Abstract

I will write the abstract as the last part of my paper, as it should survey the topics and results discussed.

Citation examples for LaTeX, which I will be using to write and format this paper, compilation. I am using ACS as a reference style.

I am using BibTeX to compile my refs.bib document for this paper, please let me know if my citations are done incorrectly so I can change them sooner rather than later.

# 2 Introduction

1. Desire for hypersonic travel commercially and narrower scopes
2. Difficulty finding polymers to withstand extreme temperature scenarios
3. High friction scenarios both with physical and gases (air resistance) need to be accounted for
4. Space stations can make use of temp withstanding polymers in either direction
5. Main concern with hypersonic travel is the lack of ability to handle friction with air
6. Explicitly state the purpose of these studies

# 3 Results and Discussion

1. Polymer coatings can mitigate low thermal resistance
2. Polyimides very thermo-oxidatively resistant [?]
3. Discuss synthesis of polyimides and behavior at temperatures above 500°C
4. Thermoplastic vs. thermosey polyimides
5. Nanoparticles: their use and benefit to making travel like this possible

# 4 Conclusions

Restate, succinctly, the results section.

1. Discuss without logical sentences
2. Discuss possible grievances and comments
3. Discuss future solutions and ideas