

Hypothetical Table of Contents

1. **Introduction to Point Defects**
 - Definition and significance
 - Classification of point defects
2. **Theoretical Models**
 - Atomic models of defects
 - Mathematical formulations and equations
3. **Formation of Defects**
 - Mechanisms of defect formation
 - Thermodynamic conditions influencing defects
4. **Characterization Techniques**
 - Experimental methods for defect analysis
 - Properties of point defects
5. **Defect Interactions**
 - Effects of defects on semiconductor properties
 - Models of defect interactions
6. **Applications in Semiconductors**
 - Doping and its effect on electronic properties
 - Impact of defects on electronic devices
7. **Conclusion and Future Directions**
 - Current challenges in the study of point defects
 - Future research opportunities