## Contents

Abstract  
Preface  
Acknowledgement  
Tables of Contents  
List of Tables  
List of Figures  
List of Schemes  
Abbreviations

Chapter 1: Introduction
  1.1 Polyolefin  
  1.2 Significance of the Catalytic Systems  
  1.3 Metathesis olefin polymerization  
  1.4 A Brief Overview of Ziegler-Natta Catalyst  
  1.5 Polymerization Process  
  1.6 Nomenclature and application of polyethylene (PE)  
  References

Chapter 2: Poly(styrene-co-methyl methacrylate) supported Ziegler-Natta catalyst for ethylene polymerization in slurry process
  2.1 Introduction  
  2.2 Experimental  
  2.3 Results and Discussion  
  2.4 Conclusion  
  References

Chapter 3: Poly(amic acid) supported heterogeneous titanium based Ziegler Natta catalyst for ethylene polymerization in slurry process
  3.1 Introduction  
  3.2 Experimental  
  3.3 Results and discussion  
  3.4 Conclusions  
  References
Chapter 4: Melamine formaldehyde supported titanium based heterogeneous Ziegler-Natta catalyst for ethylene polymerization in slurry process

4.1 Introduction 102
4.2 Experimental 102
4.3 Results and discussion 106
4.4 Conclusions 124
References 125

Chapter 5: Polystyrene supported heterogeneous titanium based Ziegler-Natta catalyst for ethylene polymerization in slurry process

5.1 Introduction 126
5.2 Experimental 126
5.3 Results and discussion 132
5.4 Conclusions 148
References 149

Chapter 6: Conclusion and future scopes of the present investigation

6.1 Conclusions 150
6.2 Future scopes of the present investigation 153
List of Publications 154