1. Record Nr. UNINA9910830973703321

Titolo	Chiral catalyst immobilization and recycling [[electronic resource] /] / edited by D.E. De Vos, I.F.J. Vankelecom, P.A. Jacobs
Pubbl/distr/stampa	Weinheim ; ; New York, : Wiley-VCH, c2000
ISBN	1-281-76408-6 9786611764081 3-527-61314-5 3-527-61315-3
Descrizione fisica	1 online resource (342 p.)
Altri autori (Persone)	VosD. E. de (Dirk E.) VankelecomI. F. J (Ivo F. J.) JacobsPeter A
Disciplina	541.395 547.1395
Soggetti	Enantioselective catalysis Catalysts
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chiral Catalvst Immobilization and Recycling; Contents; 1 Enantioselective Heterogeneous Catalysis: Academic and Industrial Challenges; 1.1 Introduction; 1.2 The Industrial Process in General and the Specific Prerequisites for Chiral Catalysts; 1. 2.1 Characteristics of the Manufacture of Enantiomerically Pure Products; 1.2.2 Process Development: Critical Factors for the Application of (Heterogeneous) Enantioselective Catalysts; 1. 2.3 Important Criteria for Enantioselective Catalysts; 1.3 The General Challenges; 1.3.1 For Academia; 1.3.2 For Industry 1.4 Chiral Heterogeneous Catalysts: State of the Art and Future Challenges1.4.1 Heterogeneous Catalysts Modified with a Chiral Auxiliary; 1.4.1.1 Metallic Catalysts on Chiral Supports; 1.4.1.2 Metallic Catalysts Modified with a Low Molecular Weight Chiral Auxiliary; 1.4.1.3 Metal Oxide Catalysts Modified with a Chiral Auxiliary having Low Molecular Weight; 1.4.2 Immobilized and Functionalized Homogeneous Catalysts; 1.4.2.1 Immobilized Homogeneous Catalysts; 1.4.2.2

Alternative Methods Using Functionalized Ligands; 1.4.3 Catalysts with No Known Heterogeneous or Homogeneous Precedent
1.4.3.1 Insoluble Polypeptides and Gels1.4.3.2 Artificial Catalytic Antibodies; 1.5 Conclusions; References; 2 Catalyst Immobilization on Inorganic Supports; 2.1 Introduction; 2.2 General Considerations; 2.3 Supports; 2.4 Improved Activity of Heterogeneous Complexes; 2.5 Practical Examples; 2.5.1 Covalent Attachment; 2.5.2 Adsorption or Ion-Pair Formation; 2.5.3 Encapsutation; 2.5.4 Entrapment; 2.5.5 Supported Liquid Phase (SLP); 2.5.6 Modification of an Achiral Heterogeneous Catalyst with a Chiral Auxiliary; 2.5.7 Achiral Metal Catalysts on Chiral Supports; References
3 Organic Polymers as a Catalyst Recovery Vehicle3.1 General Introduction; 3.2 Alkene Hydrogenation; 3.3 Carbonyl and Imine Reduction; 3.4 Carbon-Carbon Bond Formation; 3.5 Carbonyl Alkylation; 3.6 Diels-Alder Reactions; 3.7 Enolate Chemistry; 3.8 Strecker Chemistry; 3.9 Asymmetric Dihydroxylation; 3.10 Epoxidation and Epoxide Ring Opening; 3.11 Acylation Catalysts; 3.12 Conclusion; References; 4 Liquid Biphasic Enantioselective Catalysis; 4.1 Introduction; 4.2 Hydrogenation; 4.3 Hydroformylation; 4.4 Oxidation; 4.5 Lewis Acid-Catalyzed Reactions; 4.6 Enzymatic Reactions; 4.7 Summary
References5 Immobilized Enzymes in Enantioselective Organic Synthesis; 5.1 Introduction; 5.2 Immobilization; 5.2.1 Methods of Immobilization; 5.2.1.1 Enzymes; 5.2.1.2 Carriers; 5.2.1.3 Binding Enzymes to Carriers; 5.2.1.4 Cross-Linked Enzyme Crystals; 5.2.2 Activity Assay; 5.2.3 Activity Balance; 5.2.4 Cost of Immobilization; 5.3 Operation; 5.3.1 Reactors; 5.3.2 Operational Stability; 5.4 Summary; References; 6 Enantioselective Hydrogenation Catalyzed by Platinum Group Metals Modified by Natural Alkaloids; 6.1 Historical Perspective 6.2 Enantioselective Hydrogenation of Activated Ketones over Platinum

Sommario/riassunto

Homogeneous asymmetric catalysis offers reliable results and the possibility to 'tune' the catalysis on a rational basis. A pitfall, however, is that the separation of the catalyst from the starting material and products is difficult and often results in the loss of the catalytic material.Immobilization offers a potential solution for the user of enantioselective catalysts in industrial processes and laboratories. Heterogeneous catalysis allows continuous operations, recycling of the catalyst, and an easy separation of the reaction products, reducing both waste and costs.Chemis

2. Record Nr. UNINA9910154749003321

Autore	Madsen Ib
Titolo	Classifying Spaces for Surgery and Corbordism of Manifolds. (AM-92), Volume 92 / / R. James Milgram, Ib Madsen
Pubbl/distr/stampa	Princeton, NJ : , : Princeton University Press, , [2016] ©1980
ISBN	1-4008-8147-1
Descrizione fisica	1 online resource (296 pages) : illustrations
Collana	Annals of Mathematics Studies ; ; 229
Disciplina	514/.223
Soggetti	Manifolds (Mathematics) Classifying spaces Surgery (Topology) Cobordism theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- CONTENTS -- INTRODUCTION -- CHAPTER 1. CLASSIFYING SPACES AND COBORDISM -- CHAPTER 2. THE SURGERY CLASSIFICATION OF MANIFOLDS -- CHAPTER 3. THE SPACES SG AND BSG -- CHAPTER 4. THE HOMOTOPY STRUCTURE OF G/PL AND G/TOP -- CHAPTER 5. THE HOMOTOPY STRUCTURE OF MSPL[½] AND MSTOP [½] -- CHAPTER 6 . INFINITE LOOP SPACES AND THEIR HOMOLOGY OPERATIONS -- CHAPTER 7. THE 2-LOCAL STRUCTURE OF B(G/TOP) -- CHAPTER 8 . THE TORSION FREE STRUCTURE OF THE ORIENTED COBORDISM RINGS -- CHAPTER 9. THE TORSION FREE COHOMOLOGY OF G/TOP AND G/PL -- CHAPTER 10. THE TORSION FREE COHOMOLOGY OF BTOP AND BPL -- CHAPTER 11. INTEGRALITY THEOREMS -- CHAPTER 12. THE SMOOTH SURGERY CLASSES AND H* (BTOP; /2) -- CHAPTER 13. THE BOCKSTEIN SPECTRAL SEQUENCE FOR BTOP -- CHAPTER 14. THE TYPES OF TORSION GENERATORS -- APPENDIX. THE PROOFS OF 13.12, 13.13, AND 13.15 -- BIBLIOGRAPHY -- INDEX -- Backmatter
Sommario/riassunto	Beginning with a general discussion of bordism, Professors Madsen and Milgram present the homotopy theory of the surgery classifying spaces and the classifying spaces for the various required bundle theories. The

next part covers more recent work on the maps between these spaces and the properties of the PL and Top characteristic classes, and includes integrality theorems for topological and PL manifolds. Later chapters treat the integral cohomology of BPL and Btop. The authors conclude with a discussion of the PL and topological cobordism rings and a construction of the torsion-free generators.