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Nota di contenuto	Catalysts for Fine Chemical Synthesis Volume 3; Contents; Series Preface; Preface to Volume 3; Abbreviations; List of Chemical Names Used; 1 Considerations of Industrial Fine Chemical Synthesis; 1.1 Introduction; 1.2 Types of processes - flow charts; 1.2.1 Classical process; 1.2.2 General catalytic process; 1.3 Costs associated with use of catalysts; 1.3.1 Catalyst fabrication costs; 1.3.2 Intellectual property right (IPR) issues; 1.3.3 Separation costs; 1.3.4 Pre-reaction/immobilisation; 1.3.5 Post reaction - separation; 1.3.6 Industrial examples; References 2 Alkylation and Allylation Adjacent to a Carbonyl Group2.1 The RuH(2)(CO)(PPh(3))(3)-catalysed alkylation, alkenylation and arylation of aromatic ketones via carbon-hydrogen bond cleavage; 2.1.1 Preparation of carbonyldihydrotris(triphenylphosphine) ruthenium; 2.1.2 Synthesis of 8-(2-triethoxysilanylethyl)-3,4-dihydro-2H-naphthalen-1-one; 2.1.3 Synthesis of 8-(1-methyl-2-

trimethylsilanylvinyl)-3,4-dihydro-2H-naphthalen-1-one; 2.1.4 Synthesis of 1-biphenyl-2-yl-2,2-dimethylpropan-1-one; 2.1.5 Conclusion; References
2.2 Catalytic, asymmetric synthesis of a,a-disubstituted amino acids using a chiral copper-salen complex as a phase transfer catalyst2.2.1 Synthesis of (chsalen); 2.2.2 Synthesis of copper(II) (chsalen); 2.2.3 Alkylation of alanine methyl ester Schiff base by chiral salen-metal catalysts, a-benzyl-alanine methyl ester; 2.2.4 Conclusion; References; 2.3 Asymmetric phase-transfer catalysed alkylation of glycine imines using cinchona alkaloid derived quaternary ammonium salts
2.3.1 Synthesis of (1S,2S,4S,5R,1 R)-1-(anthracen-9-ylmethyl)-5-ethyl-2-[hydroxy(quinolin-4-yl)methyl]-1-azoniabicyclo[2.2.2]octane bromide2.3.2 Synthesis of (1S,2S,4S,5R,1 R)-1-(anthracen-9-ylmethyl) -5-ethyl-2-[benzyloxy(quinolin-4-yl)methyl]-1-azoniabicyclo[2.2.2] octane bromide; 2.3.3 Synthesis of (2S)-tert-butyl 2-amino-4-bromopent-4-enoate; 2.3.4 Conclusion; References; 3 Asymmetric Alkylation or Amination of Allylic Esters; 3.1 Synthesis and application in palladium-catalysed asymmetric allylic substitution of enantiopure cyclic b-iminophosphine ligands
3.1.1 Synthesis of (2,6-dimethyl-phenyl)-(1-phenyl-2,3,3a,8a-tetrahydro-1H-1-phospha-cyclopenta[a]inden-8-ylidene)-amines 1R (p)3.1.2 Synthesis of (E)-Methyl 2-carbomethoxy-3,5-diphenylpent-4-enoate; 3.1.3 Synthesis of benzyl(1,3-diphenylprop-2-enyl)amine; 3.1.4 Conclusion; References; 3.2 (9H,9 H,10H,10 H,11H,11H ,13H,13 H,14H,14 H,15H,15 H-perfluorotricosane-12,12 -diyl)bis[(4S)-4-phenyl-2-oxazoline as a ligand for asymmetric palladium-catalysed alkylation of allylic acetates in fluorous media; 3.2.1 Synthesis of 2-iodo-1-(1H,1 H,2H,2 H,3H,3 H-perfluorooctyl)-3-propanol
3.2.2 Synthesis of 3-(1H,1 H,2H,2 H,3H,3 H-perfluorooctyl)-1-propanol

Sommario/riassunto

The chemist has a vast range of high-tech catalysts to use when working in fine chemical synthesis but the catalysts are generally hard to use and require both time, skill and experience to handle properly. The Catalysts for Fine Chemical Synthesis series contains tested and validated procedures which provide a unique range resources for chemists who work in organic chemistry. ""... of great value to synthetic organic chemists..."" (The Chemists, Summer 2003) Volume 3 in the series focuses on catalysts for carbon-carbon bond formation and presents practical and detailed prot