Jonathan Clayden — Publications

251. Dynamic Foldamer Chemistry

250. Conformational photoswitching of a synthetic peptide foldamer bound within a phospholipid bilayer

249. Substituent effects on axial chirality in 1-aryl-3,4-dihydroisoquinolines: controlling the rate of bond rotation
Josep Mas Roselló, Samantha Staniland, Nicholas J. Turner and Jonathan Clayden, Tetrahedron in press (Symposium in print 'Control of Axial Chirality')

248. Length-dependent formation of transmembrane pores by 3_10 helical Aib foldamers

247. Refoldable foldamers: global conformational switching by deletion or insertion of a single hydrogen bond

246. Origin of Helical Screw Sense Selectivity Induced by Chiral Constrained Cα-Tetrasubstituted α-Amino Acids in Aib-based Peptides

245. α-Quaternary proline derivatives by intramolecular diastereoselective arylation of N-carboxamido proline ester Enolates
Julien Maury and Jonathan Clayden J. Org. Chem. 2015, 80, 10757-10768

244. Helical peptaibol mimics are better ionophores when racemic than when enantiopure

243. Palladium-catalysed C-arylation of amino acid derived hydantoins
Fernando Fernández-Nieto, Josep Mas Roselló, Simone Lenoir, Simon Hardy and Jonathan Clayden Org. Lett. 2015, 17, 3838-3841.

242. Conformational cooperativity between helical domains of differing geometry in oligoamide-oligoureia foldamer chimeras

241. Pseudoephedrine-directed asymmetric α-arylation of α-amino acid derivatives

240. Conformational switching of a foldamer in a multi-component system by pH-filtered selection between competing non-covalent interactions

239. Screw sense alone can govern enantioselective extension of a helical peptide by kinetic resolution of a racemic amino acid
Liam Byrne, Jordi Solà and Jonathan Clayden Chem. Commun. 2015, 51, 10965-10968.

238. Geometry-selective synthesis of the unsaturated side chains of the isodomoic acids
Nadia Fleary-Roberts, Gilles Lemière and Jonathan Clayden, Tetrahedron, 2015, 71, 7204-7208 (Alan R. Katritzky memorial issue)

237. 2,2- and 2,6-Diarylpyperidines by Aryl Migration within Lithiated Urea Derivatives of Tetrahydropyridines
Michael B. Tait, Sam Butterworth, and Jonathan Clayden Org. Lett. 2015, 17, 1236-1239.

‡ This symbol indicates a non peer reviewed contribution (18 in this list)
236. Flaws in foldamers: conformational uniformity and signal decay in achiral helical peptide oligomers

235. Directed lithiation of pentadienylsilanes

234. Recent Developments in Inter- and Intra-molecular Enolate Arylation

233. Enantioselective carbolithiation of S-alkenyl-N-aryl thiocarbamates: kinetic and thermodynamic control

232. Lithium choreography determines contrasting stereochemical outcomes of aryl migrations in benzylic carbamates, ureas and thiocarbamates

231. Participation of Non-Aminoisobutyric Acid (Aib) Residues in the 3_10 Helical Conformation of Aib-Rich Foldamers: A Solid State Study


229. Inducing achiral aliphatic oligoureas to fold into helical conformations

228. Designing Foldamer-Foldamer Interactions in Solution: The Roles of Helix Length and Terminus Functionality in Promoting the Self-Association of Aminoisobutyric Acid Oligomers

227. Enzymatic desymmetrising redox reactions for the asymmetric synthesis of biaryl atropisomers

226. The synthesis of 1-arylcycloalkenamines by intramolecular arylation of lithiated ureas

225. Atropisomerism about Aryl–C(sp^3) Bonds: The Electronic and Steric Influence of ortho-Substituents on Conformational Exchange in Cannabidiol and Linderatin Derivatives

224. Controlling the sign and magnitude of screw-sense preference from the C-terminus of an achiral helical foldamer

223. Dihydrothiophenes containing quaternary stereogenic centres by sequential stereospecific rearrangements and ring-closing metathesis

222. Engineering the structure of an N-terminal β-turn to maximize screw-sense preference in achiral helical peptide chains
221. Conformational Analysis of Helical Aminoisobutyric Acid (Aib) Oligomers Bearing C-Terminal Schellman Motifs

220. Comprehensive Organic Synthesis II, vol. 8 (Reduction)

219. Dearomatization and aryl migration in organolithium chemistry

218. Tertiary thiols from allylic thiocarbamates by tandem enantioselective [3,3]-sigmatropic rearrangement and stereospecific arylation

217. Diastereomeric Ratio Determination by High Sensitivity Band-Selective Pure Shift NMR Spectroscopy

216. Thionoglycine as a multifunctional spectroscopic reporter of screw-sense preference in helical foldamers

215. Foldamer-mediated remote stereocontrol: >1,60 asymmetric induction

214. Intramolecular arylation of amino acid enolates

213. End-to-end conformational communication through a synthetic purinergic receptor by ligand-induced helicity switching

212. The N-terminal nonapeptide of cephaibols A and C: a naturally occurring example of mismatched helical screw-sense control

211. Structural influences in lithium pentadienylsilane complexes


209. Manipulating the diastereoselectivity of ortholithiation in planar chiral ferrocenes

208. Influence of achiral units with gem-dimethyl substituents on the helical character of aliphatic oligoureas

207. Dearomatising cyclisation of lithiated allyl phenyl ethers: the role of an oxazoline substituent

206. Carbolithiataion of S-alkenyl-N-aryl thiocarbamates: carbanion arylation in a connective route to tertiary thiols

205. Diastereotopic fluorine substituents as $^{19}$F NMR probes of screw-sense preference in helical foldamers
204. Spirocyclic dihydropyridinines by electrophile-induced dearomatizing cyclization of N-alkenyl pyridinecarboxamides

203. Carbolithiation of N-alkenyl uras and N-alkenyl carbamates

202. Left-handed helical preference in an achiral peptide chain is induced by an L-amino acid in an N-terminal Type II β-turn

201. Reversible aryl migrations in metallated uras: controlled inversion of configuration at a quaternary carbon atom

200. Amines bearing tertiary substituents by tandem enantioselective carbolithiation–rearrangement of vinyl uras

199. Lithium choreography: intramolecular arylations of carbamate-stabilised carbanions and their mechanisms probed by in-situ IR and DFT

198. S-Allyl thiocarbamates from allylic alcohols by in situ [3,3]-sigmatropic rearrangement of a thiocarbonyliddimidazole adduct

197. Lithiated tertiary carbanions display variable coordination modes: the evidence from DFT and NMR studies

196. $\textit{Organic Chemistry (Second Edition)}$

195. Intramolecular vinylation of secondary and tertiary organolithiums

194. Chemical communication: conductors and insulators of screw-sense preference between helical oligo(aminoisobutyric acid) domains

193. $\textit{Stabilizers cause instability (News and Views article)}$

192. Induction of unexpected left-handed helicity by an N-terminal L-amino acid in an otherwise achiral peptide chain

191. Tertiary alcohols by tandem β-carbolithiation and N→C aryl migration in enol carbamates

190. On the control of secondary carbanion structure utilizing ligand effects during directed metatation

189. The Mechanism of the Stereospecific Intramolecular Arylation of Lithiated Uras: The Role of Li+ probed by electronic structure calculations, and by NMR and IR spectroscopy
188. Is nevirapine atropisomeric? Experimental and computational evidence for rapid conformational inversion

187. The Urea Renaissance

186. Dearomatizing reactions using organolithiums

185. Communicating chirality (News and Views article)

184. Carbamate-directed benzylic lithiation for the diastereo- and enantioselective synthesis of diaryl ether atropisomers

183. Synthesis of enantiomerically enriched (R)-13C-labelled 2-aminoisobutyric acid (Aib) by conformational memory in the alkylation of a derivative of L-alanine

182. Ligand effects in the formation of tertiary carbanions from substituted tertiary aromatic amides

181. Attack on fluorinated 2-aryloxazolines by organolithiums: dearomatisation, lithiation or substitution

180. Asymmetric synthesis of tertiary thiols and thioethers

179. Measuring screw-sense preference in a helical oligomer by comparison of 13C NMR signal separation at slow and fast exchange

178. Quaternary centres bearing nitrogen (α-tertiary amines) as products of molecular rearrangements

177. A general synthetic approach to the amnesic shellfish toxins: total synthesis of (−)-isodomoic acid B, (−)-isodomoic acid E and (−)-isodomoic acid F

176. Enantioselective synthesis of tertiary thiols by intramolecular arylation of lithiated thiocarbamates

175. Geometry-selective synthesis of E or Z N- vinyl ureas (N-carbamoyl enamines)

174. Interruption of a 310-helix by single Gly residue in a poly-Aib motif: a crystallographic study

173. Sequential double α-arylation of N-allylureas by asymmetric deprotonation and N→C aryl migration

172. The origin of the conformational preference of N,N’-diaryl-N,N’-dimethyl ureas
169. Deconstructing THF [news and views article] 

170. Nanometre-range communication of stereochemical information by reversible switching of molecular helicity 
Jordi Solà, Stephen P. Fletcher, Alejandro Castellanos and Jonathan Clayden, Angew. Chemie Int. Ed. 2010, 49, 6836-6839

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Bo Yuan, Abigail Page, Christopher P. Worrall, Franck Escalettes, Simon C. Willies, Joseph J. W. McDouall, Nicholas J. Turner and Jonathan Clayden, Angew. Chemie Int. Ed. 2010, 49, 7010-7013

154. Controlling axial conformation in 2-arylpyridines and 1-arylisooquinolines: application to the asymmetric synthesis of QUINAP by dynamic thermodynamic resolution

153. N to C arylation migration in lithiated carbamates: α-arylation of benzylic alcohols

152. Doubly dearomatising intramolecular coupling of a nucleophilic and an electrophilic heterocycle

151. Enantiomerically enriched atropisomeric N,N'-diaryl ureas by oxidative kinetic resolution of their 2-sulfanyl derivatives

150. Transmission of stereochemical information over nanometre distances in chemical reactions

149. α-Arylation of cyclic amines by aryl transfer in lithiated ureas

148. Relaying stereochemistry through aromatic ureas: 1,9 and 1,15 remote stereocontrol

147. Asymmetric synthesis of biaryl atropisomers by dynamic resolution on condensation of biaryl aldehydes with (−)-ephedrine or a prol-ine derived diamine

146. Synthesis of enantiomerically enriched isotopically-labelled anilines by (−)-sparteine directed lithiation
Jonathan Clayden, Loïc Lemiègre and Mark Pickworth, Tetrahedron Asymmetry 2008, 19, 2218-2221

145. Helix persistence and breakdown in oligoureas of metaphenylenediamine: apparent diastereotopicity as a spectroscopic marker of helix length in solution

144. α-Pyridylation of chiral amines via urea coupling, lithiation and rearrangement
Jonathan Clayden and Ulrich Hennecke, Org. Lett. 2008, 10, 3567-3570

143. Conformation and Stereodynamics of 2,2'-Disubstituted N,N'-Diaryl Ureas

142. Stereoselective Dearomatizing Addition of Nucleophiles to Uncomplexed Benzene Rings: A Route to Carbocyclic Sugar Analogues

141. Electrophile-induced dearomatizing spirocyclisation of N-aryl isonicotinamides: a route to spirocyclic piperidines

140. N,N'-Diary lureas: A New Family of Atropisomers Exhibiting Highly Diastereoselective Reactivity

139. Enantioselective synthesis of an atropisomeric diaryl ether
Jonathan Clayden, Christopher P. Worrall, Wesley J. Moran and Madeleine Helliwell, Angew. Chemie Int Ed. 2008, 47, 3234-3237
138. Conformational switching between diastereoisomeric atropisomers of arenedicarboxamides induced by complexation with Lewis acids

137. Remote Control of Stereochemistry: Communicating Information via Conformation

136. Oxidative fragmentation of bicyclic hydroxy silanes and stannanes: a strategy for the stereoselective synthesis of kainoids

135. Substituted Diarylmethylamines by Stereospecific Intramolecular Electrophilic Arylation of Lithiated Ureas

134. Transmitting information along oligoparaphenylenes: 1,12-stereochemical control in a terphenyl tetracarboxamide

133. Synthesis of densely functionalised arenes using [2+2+2] cycloaddition reactions

132. Synthesis and stacked conformations of symmetrical and unsymmetrical oligo-areas of metaphenylenediamine


130. Azabicyclic amino acids by stereoselective dearomatizing cyclization of the enolates of N-nicotinoyl glyicine derivatives

129. The twisted amide 2-quinuclidone: 60 years in the making

128. Lateral lithiation of N,N′-diaryl ureas

127. BBC Radio 4: The Isomers Have It
Jonathan Clayden (presenter Sue Nelson; producer Helen Sharp), BBC Radio 4, 5th July 2006, 9:00-9:30 pm

126. Three groups good, four groups bad? Atropisomerism in ortho-substituted diaryl ethers

125. Stereochemical relays: communication via conformation

124. Conformational communication between the Ar–CO and Ar–N axes in 2,2′-disubstituted benzanilides and their derivatives

123. Addition of lithiated tertiary aromatic amides to epoxides and aziridines: asymmetric synthesis of (S)-(+)—mellein

122. Contra-Friedel-Crafts tert-butylation of substituted aromatic rings via directed metallation and sulfinylation
121. Synthesis of multiply ortho-substituted diaryl ethers via lithiation and oxidation of a dibenzosiloxane (phenoxasilin)
Mark S. Betson and Jonathan Clayden, Synlett 2006, 745-746.

120. Diastereoselective synthesis of atropisomers containing two non-biaryl stereogenic axes: stereoochemical relay through stereogenic centres in dihydrostilbene-2,2’-dicarboxamides

119. Conformational arm-wrestling: battles for stereoochemical control in benzamides bearing matched and mismatched chiral 2- and 6- substituents

118. Conformational preference in aromatic amides bearing chiral ortho substituents: its origin and application to relayed stereoocontrol


116. Kinetic and thermodynamic stereoocontrol in the atroposelective formation of sulfoxides by oxidation of 2-sulfonyl-1-naphthamides

115. Cyclization of lithiated pyridine- and quinolinecarboxamides: synthesis of partially saturated pyrrolopyridines and spirocyclic beta-lactams

114. Slow interconversion of enantiomeric conformers or atropisomers of anilide and urea derivatives of 2-substituted anilines.

113. Ring-selective functionalisation of N,N'-diarylureas by regioselective N-alkylation and directed ortho-metallation

112. Diastereoselective protonation of extended pyrrol-3-en-2-one enolates: an attempted “de-epimerisation”

111. Asymmetric ortholithiation of amides by conformationally mediated chiral memory: an enantioselective route to naphtho- and benzo[4furanones

110. Focus Article: Ultra-remote stereoocontrol by conformational communication of information along a carbon chain

109. Chemistry of domoic acid, isodomioic acids and their Analogues
Jonathan Clayden, Benjamin Read and Katherine R. Hebditch, Tetrahedron 2005, 61, 5713-5724

108. The synthesis of (-)-isodomioic acid C

107. Using dipoles to control the directionality of functional groups: syn and anti oriented benzene-1,3-dicarboxamides
106. Can relief of ring-strain in a cyclopropylmethyllithium drive the Brook rearrangement?  

Jonathan Clayden, Chemistry World, Sept. 2004, 63

104. Dearomatising rearrangements of lithiated thiophenecarboxamides  

103. Total synthesis of kainoids by dearomatizing anionic cyclisation  

102. Cyclisations of organolithiums onto aromatic rings  

101. The directed metallation of aromatic compounds  

100. Ultra-remote stereocontrol by conformational communication of information along a carbon chain  

99. Dynamic resolution of atropisomeric amides using proline-derived imidazolidines and ephedrine-derived oxazolidines  

98. Sulfoxides as “Traceless” Resolving Agents for the Synthesis of Atropisomers by Dynamic or Classical Resolution  

97. Atropomerism (Preface to Tetrahedron Symposium in print)  
Jonathan Clayden, Tetrahedron 2004, 60, 4335

96. Nucleophilic addition to electron-rich heteroaromatics: dearomatising anionic cyclisations of pyrrolecarboxamides  

95. Controlling chemoselectivity in the Lithiation of Substituted Aromatic Tertiary Amides  

94. Fast racemisation and slow epimerisation of laterally lithiated amides: stereochemical evidence for the mechanism of inversion of amide-substituted benzyl lithiums  

93. Atropisomers and near-atropisomers: achieving stereoselectivity by exploiting the conformational preferences of aromatic amides  

92. β-Lactams and γ-lactams by 4-exo-trig and 5-endo-trig anionic cyclisation of lithiated acrylamide derivatives  

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90. Stereospecific photochemical ring expansion of lithiated benzamides  
89. Variations in the solid-state, solution and theoretical structures of a laterally deprotonated aromatic tertiary amide

88. Stereospecific dearomatising cyclisation of tertiary α-amidoorganolithiums
Jonathan Clayden, Faye E. Knowles and Christel J. Menet, Synlett, 2003, 1701-1703

87. Synthesis of α-methyl kainic acid by stereospecific lithiation-dearomatizing cyclization of a chiral benzamide

86. 2,3-Dihydroisoindolones by cyclisation and rearomatisation of lithiated benzamides

85. Dearomatizing Cyclization of Arylsulfonylalkoxymethyl lithiums: A Route to the Podophyllotoxin Skeleton


83. Intermolecular dearomatizing addition of organolithiums to N-benzoyl amides of 2,2,6,6-tetramethylpiperidine;

82. Carbolithiation of aromatic rings: cyclohexadienes from N-aroyl-2,2,6,6-tetramethylpiperidines;

81. Enantioselective synthesis by lithiation to generate planar or axial chirality;

80. ‡Organolithiums: Selectivity for Synthesis

79. Synthesis of (–)-Kainic Acid using Chiral Lithium Amides in an Asymmetric Dearomatizing Cyclization;

78. Lithium-sulfoxide-lithium exchange for the asymmetric synthesis of atropisomers under thermodynamic control;

77. Atroposelectivity in the Electrophilic Substitution Reactions of Laterally Lithiated and Silylated Tertiary Amides;

76. Dearomatising annelation of five-membered rings to naphthalenes by organolithium cyclisation;

75. Dearomatising disrotatory electrocyclic ring closure of lithiated N-benzoyloxazolidines;

74. “Meso-selective” functionalisation of N-benzyl-α-methylbenzylamine derivatives by α-lithiation and alkylation;

73. Lithiation and stereoselective transformations of 3-aroyl-2,2,4,4-tetramethylloxazolidines (TMO amides), a new class of acid-labile atropisomeric amides;

72. Pathways for decomposition of THF by organolithiums: the role of HMPA;

71. Stereodynamics of bond rotation in tertiary aromatic amides;
70. Asymmetric deprotonation and dearomatising cyclisation of N-benzyl benzamides using chiral lithium amides: formal synthesis of (–)-kainic acid;

69. Conformational preference and remote (1,10) stereocontrol in biphenyl-2,2'-dicarboxamides;

68. Stereospecificity and stereoselectivity in electrophilic substitution reactions of non-α-heterosubstituted organolithiums and stannanes: a rotationally restricted amide as an internal stereochemical marker;

67. Dearomatising cyclisation of lithiated 1-naphthamides with a phenylglycinol-derived chiral auxiliary: asymmetric synthesis of an arylkainoid and a kainoid-like pyroglutamate;

66. Synthesis of a potent (±)-4-(2-hydroxyphenyl) analogue of the acromelic acids by dearomatising cyclisation of a lithiated N-p-methoxybenzyl-4-methoxy-1-naphthamide;

65. Using amide conformation to “project” the stereochemistry of a (–)-ephedrine-derived oxazolidine: a pair of pseudoenantiomeric chiral amido-phosphine ligands;

64. (–)-Ephedrine as an auxiliary for the asymmetric synthesis of atropisomeric amides by dynamic resolution under thermodynamic control;

63. Asymmetric Synthesis of Enantiomerically Enriched Atropisomeric Amides by Desymmetrisation of N,N-Dialkylmesitamides;

62. Pyrrolidinone-fused Cyclohexenones by Regioselective Dearomatising Anionic Cyclisation of 2-, 3- or 4-Methoxybenzamides;

61. The First Crystallographic Evidence for the Structures of Ortholithiated Aromatic Tertiary Amides;

60. N,N-Diisopropyl-1-Napthamide;

59. Dearomatising Anionic Cyclisation of Substituted N-Cumyl-N-benzylbenzamides on Treatment with LDA: Synthesis of Partially Saturated Substituted Isoindolones;

58. Non-Biaryl Atropisomers: New Classes of Chiral Reagents, Auxiliaries and Ligands?;

57. Using symmetry to monitor geared bond rotation in aromatic amides by dynamic NMR;

56. Atropisomeric benzamides and naphthamides as chiral auxiliaries;

55. Atropisomeric Amides as Chiral Ligands: Using (–)-Sparteine-Directed Enantioselective Silylation to Control the Conformation of a Stereogenic Axis;
Publications

Jonathan Clayden

54. Organic Chemistry;

53. Axial Chirality in Xanthene-4,5-dicarboxamides: 1,9-Stereocontrol Mediated by Remote Interactions between Conformationally Constrained Amide Groups;

52. Atropisomeric Diastereoisomers from Nucleophilic Attack on 8-Acyl-1-Naphthamides;

51. Atroposelective Attack of Nucleophiles on 2-Formyl-1-Naphthamides and their Derivatives: Chelation and Non-Chelation Control;

50. Atroposelective Attack of Nucleophiles and Electrophiles on 2-Acyl-1-Naphthamides and their Enolates;

49. Dynamically Resolved peri-Substituted 2-Formyl Naphthamides: A New Class of Atropisomeric Chiral Auxiliary;

48. Synthesis of (±)-Kainic acid by Dearomatising Cyclisation of a Lithiated N-Benzyl p-Anisamide;

47. 1,3,4,5-Tetrahydroazepin-2-ones by Dearomatising Anionic Cyclisation of N-Allyl-1-Naphthamides;

46. Diastereoselective Ortholithiation and Conformational Control in Stereospecific Dearomatising Anionic Cyclisations;

45. Stereospecific Formation of Tetrasubstituted Centres from Trisubstituted Centres during Dearomatising Anionic Cyclisations;

44. Perilithiation and the Synthesis of 8-Substituted-1-Naphthamides;
Jonathan Clayden, Christopher S. Frampton, Catherine McCarthy and Neil Westlund, Tetrahedron, 1999, 55, 14161-14184

43. Bonded peri-Interactions Govern the Rate of Racemisation of Atropisomeric 8-Substituted 1-Naphthamides;

42. Diastereoisomeric Atropisomers of peri-Substituted Naphthamides: Synthesis, Stereoselectivity and Stability;

41. Enantioselective Synthesis of Atropisomeric Amides by Dynamic Resolution: Thermodynamic Control with a Proline-Derived Diamine Resolving Agent;

40. Diastereoselective Nucleophilic Additions to Vinyl Phosphine Oxides;

39. Synthesis of Atropisomeric Diamides with Remotely Related Stereogenic Axes by Stereoselective Additions to Imines;
38. Synthesis of Atropisomeric 2-(1-Aminoalkyl)-1-naphthamides by Stereoselective Addition of Organolithiums to a 2-Imino-1-naphthamide; 

37. Book Review: "Named Organic Reactions": T. Laue and A. Plagens (Wiley); 

36. Meldola Medal Feature Article; 

35. Dearomatising Cyclisations of Lithiated N-Benzyl Benzamides; 

34. Controlling the Regioselectivity of Lithiation using Kinetic Isotope Effects: Deuterium as a Protecting Group for Carbon; 

33. Barriers to Rotation about the Chiral Axis of Tertiary Aromatic Amides; 

32. Stereocontrol with Rotationally Restricted Amides; 

31. Anion Translocation in Organolithiums: A Mechanism for the Lithiation and Cyclisation of Tertiary Naphthamides; 

30. Concerted Rotation in a Tertiary Aromatic Amide: Towards a Simple Molecular Gear; 

29. (S)-2-(Dibenzylamino)-3-phenylpropanal as a Chiral Auxiliary: A New Strategy for the Asymmetric Synthesis of 2-Substituted Alcohols; 

28. Anionic Cyclisations of an N-Benzynaphthamide: A Route to Benzo[e]isoindolinones; 

27. Conformationally Interlocked Amides: Remote Asymmetric Induction by Mechanical Transfer of Stereochemical Information; 

26. Control of Stereochemistry with Phosphine Oxides: Asymmetric Synthesis of 4-Alkynoloxazolidin-2-ones with 1,4-Related Stereogenic Centres Across a Double Bond; 

25. Remote Stereocontrol using Rotationally Restricted Amides: 1,5-Asymmetric Induction; 


23. Atroposelectivity in the Reactions of Laterally Lithiated Tertiary Amides; 

22. Non-Biaryl Atropisomers: New Classes of Chiral Reagents, Auxiliaries and Ligands?; 


5. Kinetic Resolution of δ-Hydroxy Allylic Phosphine Oxides: A Stereocntrolled Route to Allylically Functionalised Systems (poster abstract);

4. Alkenyl Oxazolidinones by Stereoselective Epoxidation of δ-Hydroxy Allylic Phosphine Oxides: Synthesis of Any Isomer (RR, RS, SR or SS; E or Z) Bearing 1,4-Related Chiral Centres Across a Double Bond;

3. Stereocntrolled Synthesis of R or S, E or Z Unsaturated α–Amino Acids by Enantio- and Diastereoselective Epoxidation of δ-Hydroxy Allylic Phosphine Oxides;

2. Asymmetric Epoxidations and Kinetic Resolutions of δ-Hydroxy Allylic Phosphine Oxides;

1. The Synthesis of δ-Hydroxy Allylic Phosphine Oxides by Palladium(II)-Catalysed Allylic Transposition;