

Tetrahedron Letters Vol. 46, No. 27, 2005

Contents

COMMUNICATIONS

The direct synthesis of tertiary amines with three different substituents via the reaction of primary amines, alkyl halides, and α -chlorine substituted allylsilanes catalyzed by Lewis acids

pp 4527-4530

Makoto Kozuka,* Teruko Tsuchida and Michiharu Mitani*

$$R^{1} \xrightarrow{\text{SiMe}_{3}} + R^{3}\text{-Br} + R^{4}\text{-NH}_{2} \xrightarrow{\text{CuCl/B}(OMe)_{3}} R^{2} \xrightarrow{\text{Ne}_{3}\text{Si}} R^{3}$$

$$R^{2} \xrightarrow{\text{Ne}_{3}\text{-Br}} R^{3} \xrightarrow{\text{Ne}_{3}\text{-Br}} R^{3} \xrightarrow{\text{Ne}_{3}\text{-Br}} R^{3} \xrightarrow{\text{Ne}_{3}\text{-Br}} R^{3}$$

A fast procedure for the preparation of vicinal azidoalcohols using polymer supported reagents Eugênia Cristina Souza Brenelli,* José Afrânio Brenelli and Raquel Cristina Laranjeira Pinto pp 4531-4533

Tandem Hass–Bender/Henry reaction for the synthesis of dimethylnitro alcohols from benzylic halides pp 4535–4538 Thomas A. Klein and Jeffrey M. Schkeryantz*

Dimethylnitro alcohols are constructed in a one-pot process from benzylic halides and 2-nitropropane. The use of tetrabutylammonium fluoride (TBAF) as the promoter is essential for this tandem Hass–Bender/Henry reaction to proceed.

Synthesis of quinolines from amino alcohol and ketones catalyzed by $[IrCl(cod)]_2$ or $IrCl_3$ under solvent-free conditions

pp 4539-4542

Kazuhiko Taguchi, Satoshi Sakaguchi and Yasutaka Ishii*

Ir catalyst = [IrCl(cod)]₂ or IrCl₃

2-Aminobenzyl alcohol reacted with 2 equiv amount of ketones under the influence of [IrCl(cod)]₂ or IrCl₃ and KOH without any

Kinetic resolution by copper-catalyzed azide-alkyne cycloaddition

solvent, giving the corresponding quinoline derivatives in good yields.

pp 4543-4546

Jun-cai Meng, Valery V. Fokin* and M. G. Finn*

$$\begin{array}{c} \textbf{CH}_{3} & \textbf{Ph} = \\ \textbf{Ar} & \textbf{N}_{3} & \textbf{Ph} = \\ \textbf{CuX-pybox} & \textbf{N}_{3} & \textbf{Ph} & \textbf{N}_{N=N} & \textbf{Ph} \\ \textbf{N}_{3} & \textbf{Ph} = & \textbf{N}_{N} & \textbf{N}_{3} & \textbf{Ph} \\ \textbf{Ar} & \textbf{N}_{3} & \textbf{Ph} & \textbf{N}_{N} & \textbf{Ph} \\ \textbf{Ar} & \textbf{N}_{3} & \textbf{Ph} & \textbf{N}_{N} & \textbf{Ph} \\ \textbf{Ar} & \textbf{N}_{3} & \textbf{Ph} & \textbf{N}_{N} & \textbf{Ph} \\ \textbf{Ar} & \textbf{N}_{3} & \textbf{Ph} & \textbf{N}_{N} & \textbf{Ph} \\ \textbf{Ar} & \textbf{N}_{3} & \textbf{Ph} & \textbf{N}_{N} & \textbf{Ph} \\ \textbf{Ar} & \textbf{N}_{3} & \textbf{Ph} & \textbf{N}_{N} & \textbf{Ph} \\ \textbf{Ar} & \textbf{N}_{3} & \textbf{Ph} & \textbf{N}_{N} & \textbf{Ph} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} & \textbf{N}_{N} \\ \textbf{N}_{N} & \textbf{N}_{N}$$

Synthesis of polysubstituted-2-naphthols

pp 4547-4549

Hélène Juteau,* Yves Gareau and Hugo Lachance

$$R \stackrel{\bigcirc}{\longleftarrow} CI + R'_3Si \stackrel{\bigcirc}{\longrightarrow} \frac{AICI_3}{CH_2CI_2} \qquad R \stackrel{\bigcirc}{\longleftarrow} OH$$

Chemistry of 1,2,4-trioxanes relevant to their mechanism of action. Part 1: Reaction with Fe(II) salts pp 4551–4554 Chandan Singh,* Nitin Gupta and Pallavi Tiwari

Niobium(V) chloride catalyzed microwave assisted synthesis of 2,3-unsaturated O-glycosides by the Ferrier reaction

pp 4555-4558

Srinivas Hotha* and Ashish Tripathi

OAC
$$R^1$$
OAC
 R^2
 R^1
OAC
 R^2
 R^1
OAC
 R^2
 R^1
OAC
 R^2
 R^2
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 R^3
OAC
 R^3
OAC

An unusual solvent effect in the cuprate displacement reaction of indolizidin-5-yl-methyl *p*-toluenesulfonate: stereoselective synthesis of indolizidine alkaloids

pp 4559-4561

P. Ganapati Reddy, M. Gomathi Sankar and Sundarababu Baskaran*

An unusual solvent effect in the cuprate displacement reaction of indolizidin-5-yl-methyl *p*-toluenesulfonate with dialkyl cuprates, derived from an alkyllithium and Grignard reagents, during the synthesis of indolizidine alkaloids 167B and 209D is described.



Alkane oxygenation with H₂O₂ catalysed by FeCl₃ and 2,2'-bipyridine

pp 4563-4567

Georgiy B. Shul'pin,* Camilla C. Golfeto, Georg Süss-Fink, Lidia S. Shul'pina and Dalmo Mandelli

Ring fragmentation processes resulting from acid catalysed diazo ketone cyclisations

pp 4569-4572

Oliver E. Hutt, Lewis N. Mander* and Anthony C. Willis

Products from the cyclisation of hexahydrophenanthryl diazo ketones undergo ring fragmentation to form benzocyclo-octanyl ketones.

Catalytic enantioselective allylation of aldehydes via a chiral indium(III) complex in ionic liquids Yong-Chua Teo, Ee-Ling Goh and Teck-Peng Loh*

pp 4573-4575

The ionic liquid [hmim][PF₆] has been demonstrated as an efficient and environmentally-friendly reaction medium for the enantioselective allylation of aldehydes via a chiral indium(III) complex. The allylation of a variety of aromatic, α,β -unsaturated and aliphatic aldehydes resulted in moderate to good yields and enantioselectivities (upto 92% ee).

Stille carbonylation of N-protected bromomethylindoles

pp 4577–4579

Arasambattu K. Mohanakrishnan* and Neelamegam Ramesh

Selective and efficient oxidation of sulfides to sulfoxides with N-bromosuccinimide in the presence of β -cyclodextrin in water

pp 4581-4583

K. Surendra, N. Srilakshmi Krishnaveni, V. Pavan Kumar, R. Sridhar and K. Rama Rao*

$$R^{1}-S-R^{2} \xrightarrow{\beta-CD/H_{2}O} R^{1}-S-R^{2}$$

Expedient synthesis of 1,2,3-triazole-fused tetracyclic compounds by intramolecular Huisgen ('click') pp 4585–4588 reactions on carbohydrate-derived azido-alkynes

Srinivas Hotha,* Ramakrishna I. Anegundi and Arvind A. Natu



Dimethylaluminum methyltellurate, a new reagent for the cleavage of hindered methyl esters under exceptionally mild conditions by a novel mechanism

pp 4589-4593

B. V. Subba Reddy, Leleti Rajender Reddy and E. J. Corey*

Iodine as a novel and efficient reagent for the synthesis of α -aminonitriles by a three-component condensation of carbonyl compounds, amines, and trimethylsilyl cyanide

pp 4595-4597

Laurel Royer, Surya K. De* and Richard A. Gibbs



Perylene-3,4:9,10-bis(dicarboximide) linked to [60]fullerene as a light-harvesting antenna Jérôme Baffreau, Lara Perrin, Stéphanie Leroy-Lhez and Piétrick Hudhomme*

pp 4599-4603

New [60]fullerene-perylene-3,4:9,10-bis(dicarboximide) dyads **1** and **2** are described in the search of an energy transfer from the dye as a photoactive antenna to the fullerene moiety.



Catalytic aerobic photooxidation of primary benzylic amines using hindered acridinium salts

pp 4605-4608

Cyril Nicolas, Christelle Herse and Jérôme Lacour*

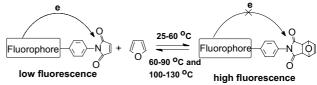
Hindered acridinium cations, simply prepared by the addition of primary amines to the known methylium tris(2,6-dimethoxyphenyl) cation, catalyze the aerobic photooxidation of primary benzyl amines into benzylimines. A mechanistic rationale for the electron-transfer process is proposed.

Synthesis and thermal modulation of the fluorescence of a pyrene-arylmaleimide dyad and its Diels-Alder adduct

pp 4609-4612

Zhuo Wang, Deqing Zhang* and Daoben Zhu*

The fluorescence of a pyrene-arylmaleimide dyad and its Diels-Alder adduct can be thermally modulated through reversible Diels-Alder reaction of arylmaleimide unit with furan.



Potential fluorescent molecular thermometers



Synthesis of benzimidazole based JNK inhibitors

Simon J. Teague,* Simon Barber, Sarah King and Linda Stein

pp 4613–4616

Substituted benzimidazoles were synthesised using a number of novel reactions, including displacement of a 2-sulfone group, preparation of 4-diazo benzimidazole derivatives and lithiation of benzimidazoles in the 4-position.

Synthesis of the NO ring model of gymnocin-B

pp 4617-4619

Chihiro Tsukano and Makoto Sasaki*

Microwave-promoted synthesis of amino-substituted 2-pyridone derivatives via palladium-catalyzed amination reaction

pp 4621-4625

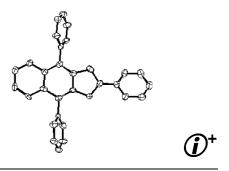
Jung-Nyoung Heo,* Young Seob Song and Bum Tae Kim

Synthesis and photoluminescence study of benz[f]indene derivatives

pp 4627-4631

Do Han Kim, Jung A Lee, Seung Uk Son, Young Keun Chung* and Cheol Ho Choi

The synthesis and optical properties of a series of benz[/]indenes as new building blocks for electronic and optoelectronic materials are described.



Regioselectivity of dimerisation of butenolides via captodative stabilised radicaloid intermediates Sharanjeet K. Bagal, Robert M. Adlington, Rohan A. B. Brown and Jack E. Baldwin*

pp 4633-4637

Iridium-catalyzed oxidative esterification reaction of aliphatic aldehydes and olefinic alcohols with precoordination of the double bond of alcohols to iridium

pp 4639-4642

Syun-ichi Kiyooka,* Mahuyu Ueno and Eri Ishii

Synthesis, resolution and racemisation studies of new tridentate ligands for asymmetric catalysis

pp 4643-4646

Brian A. Sweetman, Helge Müller-Bunz and Patrick J. Guiry*

The high-yielding preparation of two tridentate, isoquinoline-derived ligands, involving successive Suzuki cross-coupling reactions, is described. The first ligand was resolved via molecular complexation with N-benzylcinchonidinium chloride, while the second was resolved by chromatographic separation of its epimeric camphorsulfonates. The barrier to rotation about the central biaryl axis was evaluated and the absolute configuration assigned by X-ray crystallography.

Aerobic oxidation with N-hydroxyphthalimide catalysts in ionic liquid

pp 4647-4651

Jia-Rui Wang, Lei Liu,* Ye-Feng Wang, Ying Zhang, Wei Deng and Qing-Xiang Guo*

Synthesis of (2S,3R)- and (2S,3S)- $[3^2H_1]$ -proline via highly stereoselective hydrolysis of a silyl enol ether

pp 4653-4655

Paul Barraclough, Caroline A. Spray and Douglas W. Young*

Synthesis of new chiral ionic liquids from natural acids and their applications in enantioselective Michael addition

pp 4657-4660

Zhiming Wang, Qiang Wang, Yu Zhang and Weiliang Bao*

$$X = Br, PF_6, BF_4$$



A high loading sulfonic acid-functionalized ordered nanoporous silica as an efficient and recyclable catalyst for chemoselective deprotection of tert-butyldimethylsilyl ethers

pp 4661-4665

Babak Karimi* and Daryoush Zareyee



2-Oxo-1,2-ethylenedioxy group as a linker for solution-, liquid-, and solid-phase syntheses to discover pp 4667–4670 drug-like small molecules

Masato Oikawa,* Yoshiyuki Takeda and Makoto Sasaki

Procedures for loading and releasing small molecules on various polymer supports via the 2-OED linker have been established. Synthetic application toward GHS agonist candidates is reported.

Synthesis of (4R,15R,16R,21S)- and (4R,15S,16S,21S)-rollicosin

pp 4671-4675

Hidefumi Makabe,* Masaharu Higuchi, Hiroyuki Konno, Masatoshi Murai and Hideto Miyoshi

The preparation of C-glycosyl amino acids—an examination of olefin cross-metathesis

pp 4677-4681

Frank W. Schmidtmann, Tyler E. Benedum and Glenn J. McGarvey*

Direct synthesis of trimethyl(2-phenoxyethyl)silanes from aromatic fluorides

pp 4683-4685

Scott A. Grecian, Sabine Hadida and Stephen D. Warren*

EWG
$$R = HO(CH2)2SiMe3$$

$$R = H, Cl, Br$$

$$EWG$$

$$R = H, Cl, Br$$

4-(Phenylsulfonyl)-4-lithiocyclopentene as a nucleophilic 2-pentene-1,5-dial synthetic equivalent. An aziridine-based synthetic approach to (–)-alstonerine

pp 4687-4690

Paul Cox, Donald Craig,* Stephanos Ioannidis and Volker S. Rahn



OTHER CONTENTS

Calendar Contributors to this issue Instructions to contributors pp I–III p V pp VII–X

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