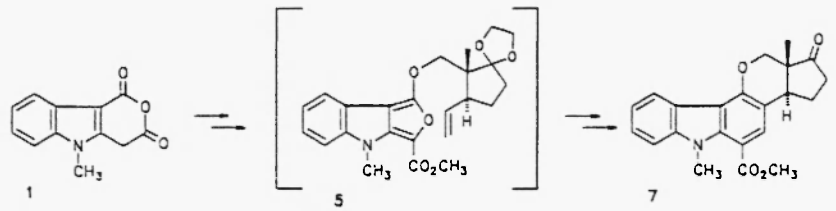
Heterocycl. Commun. **2** (1996) 203-212

INTRAMOLECULAR CYCLOADDITIONS WITH ISOBENZOFURANS XI[1] - SYNTHESIS OF ANNULATED INDOLES

Olaf Peters and Willy Friedrichsen, Institut fur Organische Chemie der Universitat Kiel, Otto-Hahn-Platz 6, D-24098 Kiel, Germany

Starting with 1 the synthesis of 7 is reported using a furo[3,4-b]indole (5) as an *in situ* intermediate.

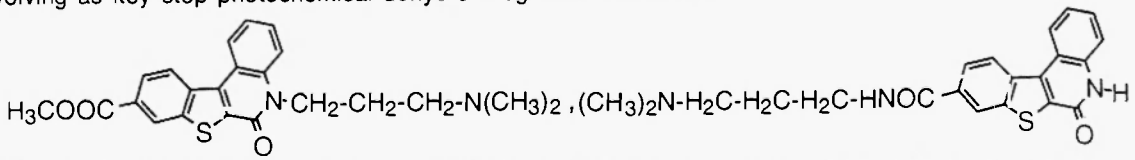


Heterocycl. Commun. **2** (1996) 213-217

SYNTHESIS AND PHOTOSYNTHESIS OF SUBSTITUTED BENZO[b]THIENO[3,2-c]QUINOLONES

Jasna Dogan, Grace Karminski-Zamola*, Department of Organic Chemistry, Faculty of Chemical Engineering and Technology, University of Zagreb, 10000 Zagreb, and David W. Boykin, Department of Chemistry, Georgia State University, Atlanta, Georgia 30303-3083 USA

Abstract: Benzo[b]thieno[3,2-c]quinolones with 3-dimethylaminopropyl substituent in the quinolono or amido part of the molecule; 9-(3-dimethylaminopropyl)benzo[b]thienyl[3,2-b]quinolin-6-(*5H*)-one **7** and 5-*N*-(3-dimethylaminopropyl)-9-carbomethoxybenzo[b]thienyl[3,2-c]quinolin-6-one **9** are prepared by multistep synthesis involving as key step photochemical dehydrohalogenation reaction.

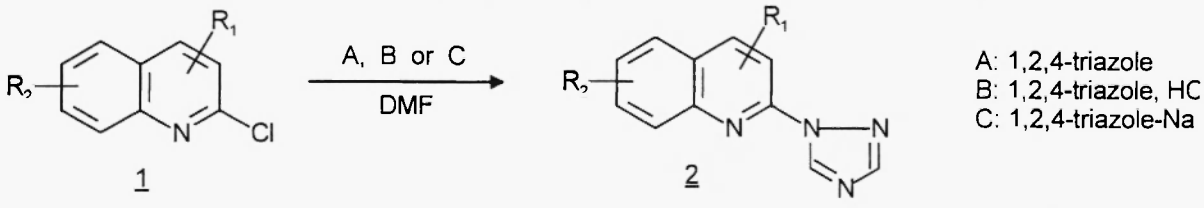


Heterocycl. Commun. **2** (1996) 219-226

NUCLEOPHILIC SUBSTITUTION REACTION OF CHLOROQUINOLINES WITH 1,2,4-TRIAZOLE. II. SYNTHESIS OF 2-(1H-1,2,4-TRIAZOL-1-YL)QUINOLINES

Ferenc Kórodi
Alkaloida Chemical Company Ltd, Tiszavasvári, H-4440, Hungary

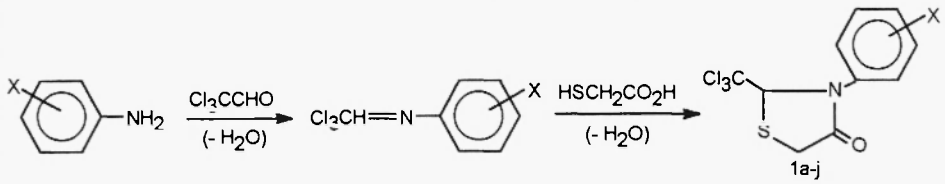
Synthesis of 2-(1H-1,2,4-triazol-1-yl)quinolines by the reaction of 2-chloroquinolines with 1,2,4-triazole was studied under neutral, acidic and basic reaction conditions. Significant role of the acid and base catalysis as well as the substituent effects on the reactivity of 2-chloroquinolines in these reactions are reported.



Heterocycl. Commun. 2 (1996) 227-232

SYNTHESIS, SPECTROSCOPIC AND STRUCTURAL PROPERTIES OF NOVEL SUBSTITUTED 2-TRICHLOROMETHYL-3-PHENYL-1,3-THIAZOLIDIN-4-ONES

Roy Issac and John Tierney*Department of Chemistry, Pennsylvania State University, Media, PA 19063, USA
Linda M. Mascavage Department of Chemistry, Beaver College, Glenside, PA 19038, USA
Alfred Findeisen Department of Chemistry, Temple University, Philadelphia, PA 19122, USA
James Kilburn ARCO Chemical Company, Newton Square, PA 19073, USA



X = 1a = H, 1b = m-F, 1c = p-Cl, 1d = m-Cl, 1e = p-Br, 1f = m-Br, 1g = p-I, 1h= m-I, 1i = m-Me, 1j = p-MeO

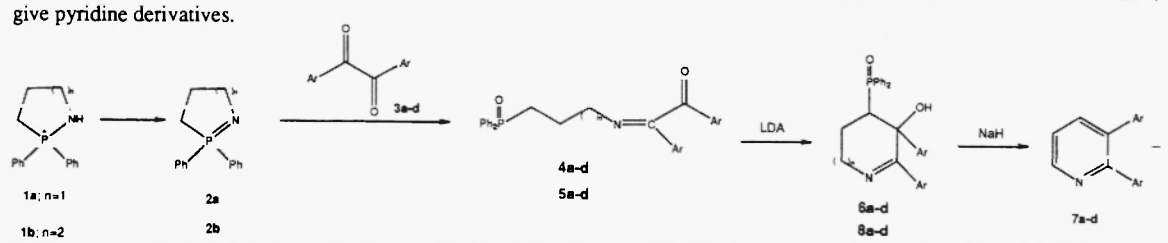
Heterocycl. Commun. 2 (1996) 233-239

SYNTHESES OF SIX- AND SEVEN-MEMBERED NITROGEN HETEROCYCLES FROM CYCLIC AMINO PHOSPHONIUM SALTS

Toshito Sakai[a], Keiji Ida[a], Tetsuya Uchiyama[a], Tetsuya Fujimoto[a],* Kazuchika Ohta[a], Iwao Yamamoto*[a], and Akikazu Kakehi[b]

a *Department of Functional Polymer Science, Faculty of Textile Science and Technology, Shinshu University, Ueda, Nagano 386, Japan* , b *Department of Chemistry and Material Engineering, Faculty of Engineering, Shinshu University, Wakasato, Nagano, 380, Japan*

A cyclic aza-ylide that generated from 5- or 6-membered cyclic amino phosphonium salts were reacted with benzils, and obtained tetrahydropyridine or tetrahydroazepine derivatives. Furthermore, tetrahydropyridine derivatives were treated with NaH to give pyridine derivatives.



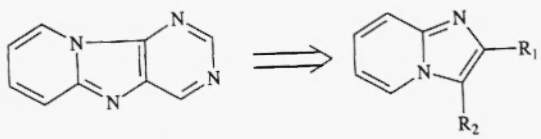
Heterocycl. Commun. 2 (1996) 241-246

CONVERSION OF IMIDAZO[1,2-a]PYRIDINES INTO PYRIDO[1,2-e]PURINES

Alain Gueiffier,*,[a] Olivier Chavignon,[b] Sylvie Mavel,[a] Jean-Michel Chezal,[b] Jean-Claude Teulade,[b] Yves Blache,[c] and Jean-Pierre Chapat[c]

[a] Laboratoire de Chimie Thérapeutique, Faculté de Pharmacie, 31 avenue Monge, 37200 Tours, France
[b] Département d'Analyse Structurale et de Pharmacochimie, UFR de Pharmacie, B.P. 38, 28, Place H. Dunant, 63001 Clermont-Fd CEDEX, France
[c] URA-CNRS 1111, UFR de Pharmacie, 15 Avenue Charles Flahault, 34060 Montpellier CEDEX, France.

The synthesis of various derivatives in the pyrido[1,2-e]purine series starting from 2,3-disubstituted imidazo[1,2-a]pyridine is reported



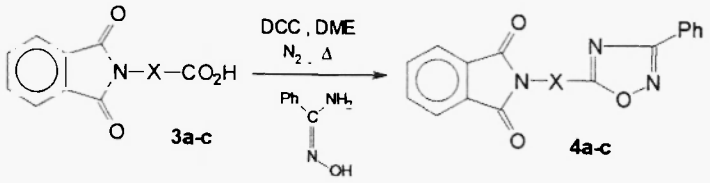
Heterocycl. Commun. 2 (1996) 247-250

A New Series of *N*-(3-phenyi-1,2,4-oxadiazol-5-yl) alkylphthalimides. I.

Roberto Antunes and R. M. Srivastava*

Departamento de Quimica Fundamental-CCEN
Universidade Federal de Pernambuco
Recife-PE-Brasil

The synthesis of the title compounds **4a-c** from *N*-substituted acids **3a-c** and benzamidoxime is described.

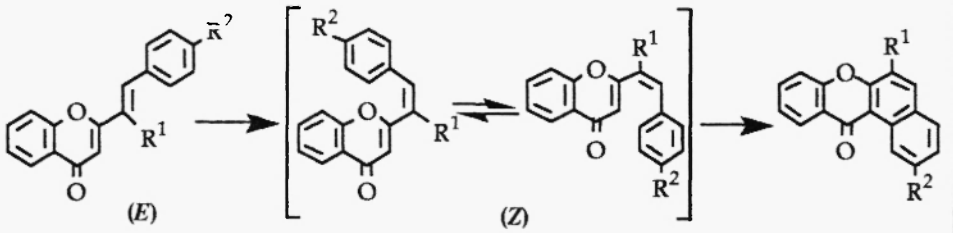


Heterocycl. Commun. 2 (1996) 251-254

SYNTHESIS OF XANTHONES BY DAYLIGHT PHOTOOXIDATIVE CYCLIZATION OF (*E*)-2-STYRYLCHROMONES

Artur M. S. Silva, Hilário R. Tavares and Jose A. S. Cavaleiro*; Department of Chemistry, University of Aveiro, 3810 Aveiro, Portugal

The synthesis of 12*H*-benzo[a]xanthene-12-ones induced by day light photooxidative cyclization of (*E*)-2-styrylchromones is reported.

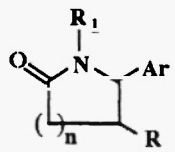


Heterocycl. Commun. 2 (1996) 255-260

PYRROLIDONIC AND PIPERIDINIC ACID DERIVATIVES

M. Baroudi, J. Robert and C. Luu-Duc*, *Laboratoire de Chimie-Pharmacie, CNRS URA 1287, Universite Joseph-Fourier, Grenoble 1, F38706 La Tronche Cedex (France)*

The condensation of aminoarylidenes with succinyl anhydride or with glutaric anhydride giving pyrrolidin-5-ones carboxylic acids and piperidin-6-ones carboxylic acids respectively was described. Alcohols, esters and imidazolides derivatives of the title compounds were prepared.



n = 1, 2

$R_1 = C_4H_9, C_8H_{17}, C_6H_5$

R = COOH, CH_2OH, $COOCH_3$, CO–N, CH_2O–CO–N

Ar = C_6H_5, $4NO_2C_6H_4$, $4ClC_6H_4$, $4FC_6H_4$, $4NH_2C_6H_4$, $4CNC_6H_4$, 2, $4Cl_2C_6H_3$

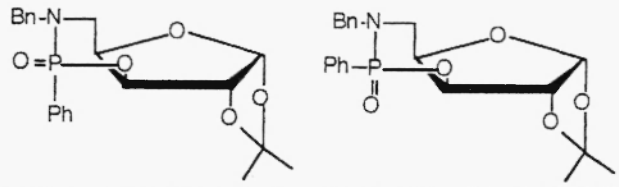
Heterocycl. Commun. 2 (1996) 261-266

PREPARATION AND CONFORMATION OF NOVEL 1,3-OXAZACYCLOPHOS-PHAMIDE DERIVATIVES OF SUGARS, AND REACTION OF 1,3-OXAZA-CYCLOPHOSPHAMIDIC CHLORIDES WITH AMINO ACIDS

Tatsuo Oshikawa,* Mitsuji Yamashita,* Kazunao Kaneoka, Tatsuya Usui, Naoyuki Osakabe, Chihiro Takahashi, and Kuniaki Seo ¶

Department of Material Chemistry, Faculty of Engineering, Shizuoka University, Hamamatsu 432, Japan. ¶ Depatment of Material Science, Numazu Technical College, Numazu 410, Japan.

The tittle compounds were prepared by the treatment of the amino sugars derived from D-xylose with $RP(O)Cl_2$ (R = Ph, Cl), and the conformations of the title compounds prepared were determined by ^{1}H-NMR and MOPAC (PM3).



Heterocycl. Commun. 2 (1996) 267-271

Diastereoselective Synthesis of a Simplified Analogue of Artemisinin with a Substituted Ring Junction

Olivier Provot[1], Mohamed Hamzaoui[1], Dung Nguyen Huy[2], Joelle Mayrargue[1] and Henri Moskowitz[1]*
1 Laboratoire de Chimie Organique, associé au CNRS, Faculté de Pharmacie, F 92296 Châtenay-Malabry, France.
2 Laboratoire de Chimie Physique, Minérale et Bioinorganique, Faculté de Pharmacie, F 92296 Châtenay-Malabry, France.

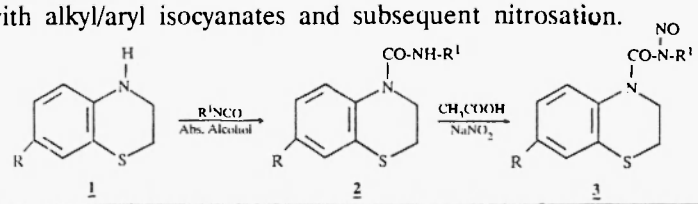
The synthesis from a β-ketoester, of a tricyclic artemisinin analogue with a substituent at the ring junction, is described.

Heterocycl. Commun. 2 (1996) 273-274

SYNTHESIS OF 4-(N-ALKYL/ARYL-N-NITROSOAMIDO)-2,3-DIHYDRO-1,4-BENZOTHIAZINES

Dinesh Rai, Vandana Gupta and R.R. Gupta*
Department of Chemistry, University of Rajasthan, Jaipur-302004, India

Synthesis of title compounds in which heterocyclic nitrogen of 1,4-benzothiazines involves in constituting urea linkage is reported first time. Synthesis involves the reactions of 1,4-benzothiazines with alkyl/aryl isocyanates and subsequent nitrosation.

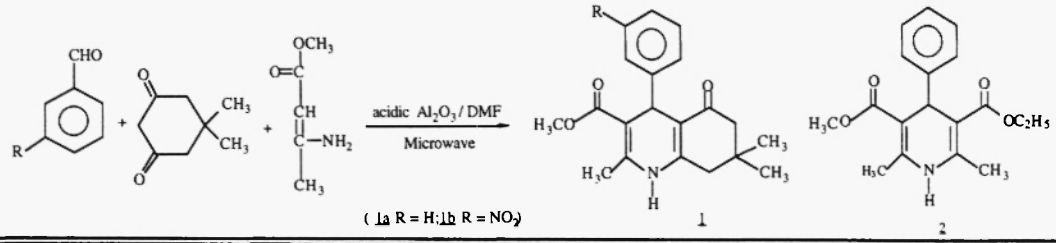


Heterocycl. Commun. 2 (1996) 275-280

AN EFFICIENT PROCEDURE TO OBTAIN HEXAHYDRO QUINOLEINES AND UNSYMMETRICAL 1,4 - DIHYDROPYRIDINES USING SOLID INORGANIC SUPPORTS AND MICROWAVE IRRADIATION

M. Suarez, a) A. Loupy, b) E. Perez,a) A L. Moran, a) G. Gerona, a) A. Morales, a) and M. Autie c)
a) Laboratorio de Sintesis Organica. Facultad de Quimica. Universidad de La Habana. Cuba b) Laboratoire des Reactions Selectives sur Supports. Universite Paris-Sud. 91405 Orsay. France c) Laboratorio de Zeolitas Centro Nacional de Investigaciones Cientificas. Cuba.

Compounds 1 and 2 were synthesized under microwave irradiation thanks to evident specific effects



(1a R = H; 1b R = NO_2)

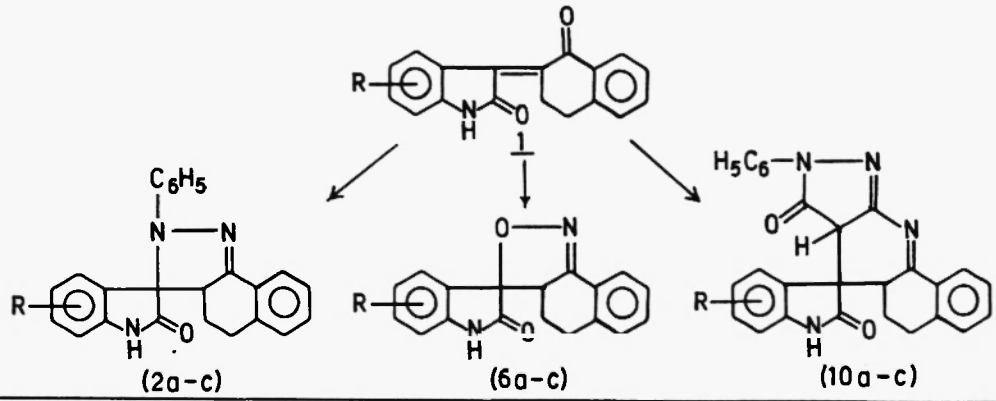
1 2

Heterocycl. Commun. 2 (1996) 281-286

SYNTHESIS OF NOVEL 3-SPIRO INDOLINES CONTAINING BENZ(g) INDAZOLE, BENZ(h) PYRA ZOLO(3,4-b) QUINOLINE AND NAPHTHISOXAZOL MOIETIES

ANSHU DANDIA*, RAHUL JOSHI, VARINDER SEHGAL, C.S. SHARMA AND MITALI SAHA
Department of Chemistry, University of Rajasthan, Jaipur - 302004, India.

One pot synthesis of novel 3-spiro-indolines (2,6 and 10) has been reported by the condensation of 1, with Phenyl hydrazine, hydroxylamine hydrochloride and 3-amino-1-phenyl-2-pyrazolin-5-one respectively.

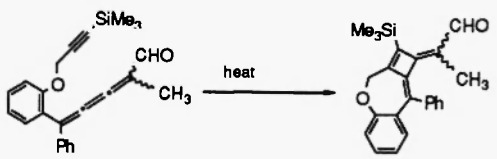


Heterocycl. Commun. 2 (1996) 287-290

BENZOCYCLOBUTYLDIHYDROOXEPINS VIA INTRAMOLECULAR CYCLOADDITIONS OF ENYNE [3]CUMULENALS

Tawfeq Kaimari, Lawrence M. Pratt and Augusto Rodríguez*
Department of Chemistry
Clark Atlanta University
Atlanta, GA 30314

An intramolecular [2+2] cycloaddition route towards fused dihydrooxepins is described. Cumulene 1 when heated to 180 °C gives a mixture of E/Z dihydrooxepins 2 in 86% yield.



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