Graphical Abstract

Heterocycl. Commun.1 (2009) 9-16

Esters And Urethanes With Pyrimidine Ring

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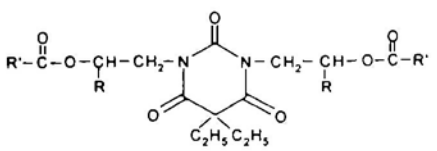
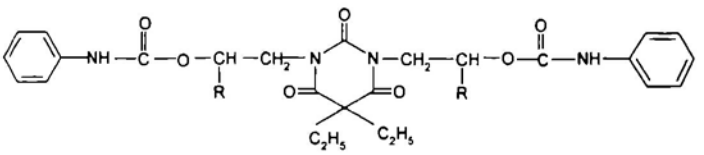
Hydroxyalkyl derivatives of 5,5-diethylbarbituric acid obtained from the acid and oxiranes or alkylene carbonates react with carboxylic acid or isocyanates to give esters and urethanes with pirymidine ring. Some of those compounds can serve useful monomers for synthesis of polyacrylates, crosslinking agents or plastificators of high thermal resistance due to the presence of pyrimidine rings.





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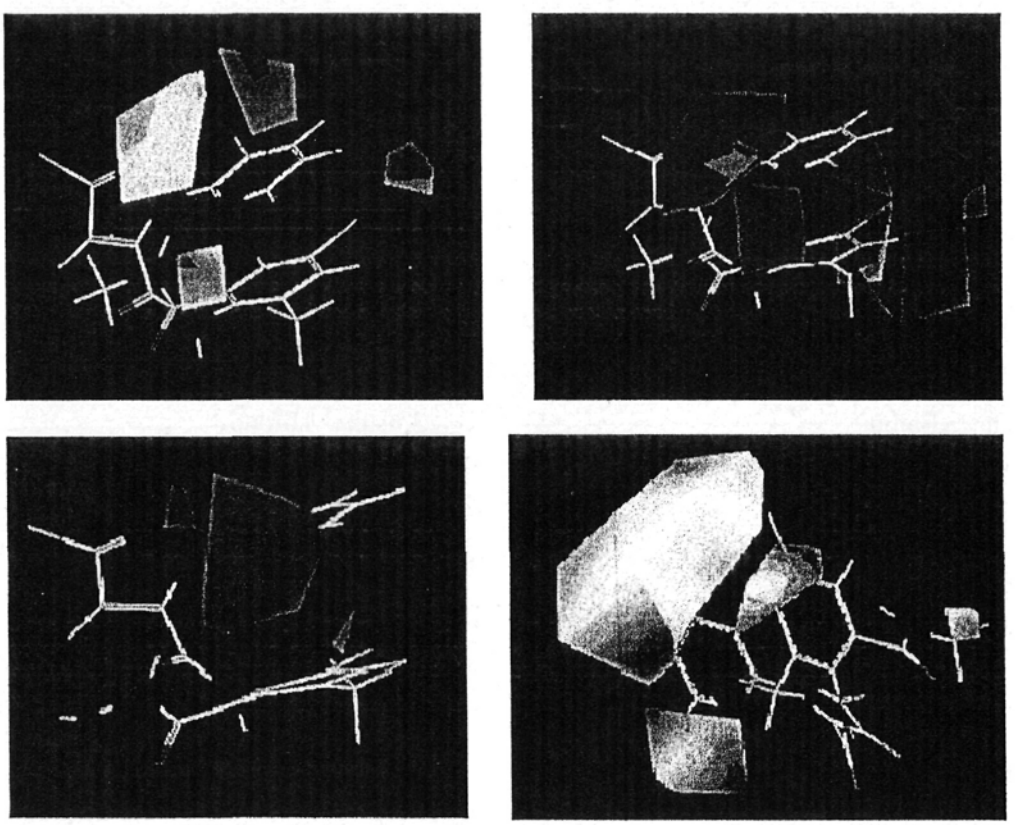
Quantitive-Strucutre Activity Relationship(QSAR) study of a New Heterocyclic Insecticides Using CoMFA and CoMSIA

Wei-Li DONG, Xing-Hai Liu, Yi MA, Zheng-Ming LI

State-Key Laboratory of Elemento-Organic Chemistry, National Pesticide Engineering Research Center, Institute of Elemento-Organic Chemistry, Nankai University, Tianjin 300071, China



Novel heterocyclic insecticidal compounds were selected and the 3D-QSAR were studied for further design and synthesis new bioactive heterocyclic compounds.

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Preparation And Characterization Of Phospholanes And Phospha Sugars As Novel Anti-Cancer Agents

Satoru Ito[a], Mitsuji Yamashita[a*], Taishi Niimi[a], Michio Fujie[a,b], Valluru Krishna Reddy[a], Hirono Totsuka[a], Buchammagari Haritha[a], Kasthuraiah Maddali[a], Satoki Nakamura[b], Kazuhide Asai[a], Takuya Suyama[a], Junko Yamashita[a], Yukiko Iguchi[a], Gang Yu[a], and Tatsuo Oshikawa[c]

[a] Graduate School of Science and Technology, Shizuoka University, Hamamatsu 432-8561, Japan
[b] Department of Internal Medicine, Hamamatsu University School of Medicine, Hamamatsu 431-3192, Japan
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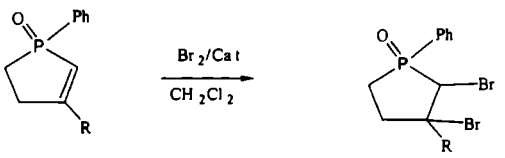
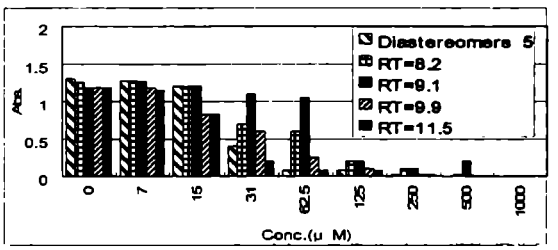
Diastereomers of 2-bromo-3-hydroxy-, 2,3-epoxy-, and 2,3-dibromo-1-phenylphospholane derivatives were synthesized from 1-phenyl-2-phospholene 1-oxide and/or 3-methyl-1-phenyl-2-phospholene 1-oxide. The prepared phospholanes or phospha sugars were biologically qualified by MTT *in vitro* method to find that they have quite efficient anti-cancer activity for leukemia cell in manners of (i) wide spectra, (ii) high activities, and (iii) high specificities.





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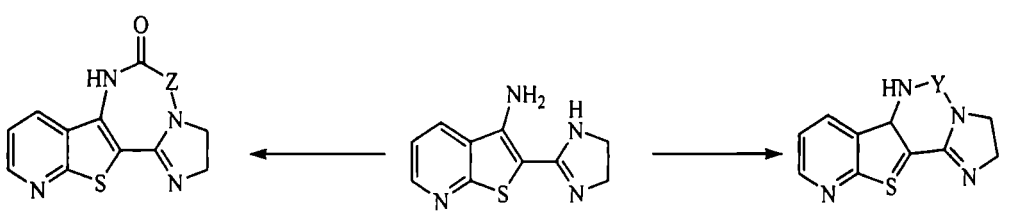
Synthesis of New Tetracyclic Fused Imidazole Derivatives

M. Bakavoli[a, c, *], F. Pirouzi[a], M. Nikpour[b] F. Bamoharram[a] and A. Davoodnia[a]

a: Department of Chemistry, School of Sciences, , Islamic Azad University, Mashhad Branch, Mashhad, Iran. b: Department of Chemistry, School of Sciences, , Islamic Azad University, Ahvaz Branch, Ahvaz 61349-68875, Iran. c: Department of Chemistry, School of Sciences, , Ferdowsi University, Mashhad 91775-1436, Iran.
email:mbakavoli@yahoo.com



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Microwave Assisted Synthesis Of Some 2,4 Dihydroxy 1,8 – Naphthyridines And Their Derivatives Devoid Of Solvent And Catalyst

Thirumala Chary Maringanti[1,*], Laxminarayana Eppakayala[2], Shiva Shankar Sripelly[1] and Narender.Atmakuri [1]

1 Kakatiya Institute of Technology and Science, Warangal – 506 009

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2. Sreenidhi Institute of Science and Technology, Ghatkesar, Hyderabad – 501 301

Reaction of substituted 2-aminopyridines with diethylmalonates yields 2,4-dihydroxy-1,8-Naphthyridenes(1-18) The 6-chloro-2,4-dihydroxy-1,8-naphthyridene(5) when treated with different reagents varied substituted derivatives are produced. 6-chloro-2,4-dihydroxy-1,8-naphthyridene(5) when treated with sodium azide offered 2,4-dihydroxy-1,8-naphthyridene-6-thiones (19-21). 6-azido-1,8-naphthyridine-2,4-diols(22-24) were obtained by reacting 5 with sodiumazide. The 6-hydrazinyl-1,8-naphthyridine-2,4-diols (25-27) and 2,4,6-trihydroxy-1,8-naphthyridenes (28-30) were produced by the reaction of 5 with hydrazine hydrate and acetic acid respectively

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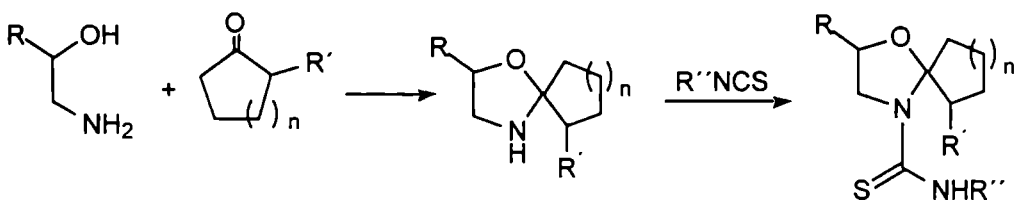
Synthesis And Biological Evaluafion Of Some New Alicyclicspiro-2′-(1′,3′-Oxazolidine) Derivatives

Hassan M. Faidallah[(a)], E. M. Sharshira[*(b)] and Mohammed S. M. AL-Saadi [(a)]

[(a)] Chemistry Department, Faculty of Medicine, University of King Abdulaziz , Jeddah 21589, Kingdom Saudi Arabia.
[(b)] Chemistry Department, Faculty of Science, Alexandria University, Alexandria, Egypt;



1 2 3

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Ultrasound Promoted $Cu(Clo_4)_2$ Catalyzed Rapid Synthesis Of Substituted 1,2,3,4- Tetrahydropyrimidine-2-Ones & Hantzsch 1,4-Dihydropyridines In Dry Media

Saurabh Puri, Anupama Parmar, Balbir Kaur, Harish Kumar*

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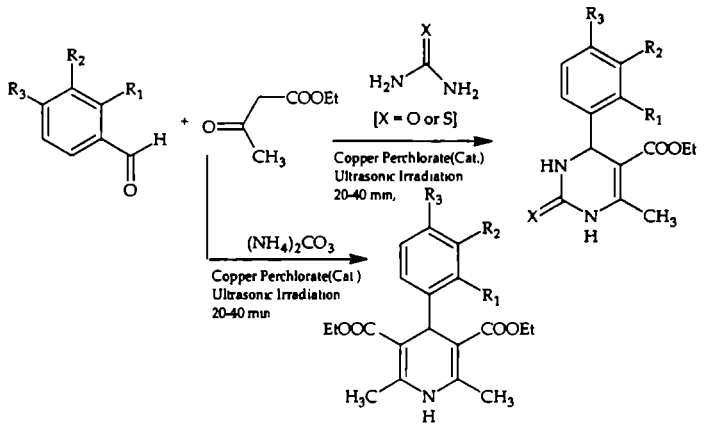
[1]Department of Chemistry, Punjabi University, Patiala-147 002 (Pb.), India

Copper perchlorate supported on bentonite clay as catalyst at room temperature gives 6-methyl-4-substituted-phenyl-2-oxo(thioxo)-1,2,3,4-tetrahydropyrimidin-5-carboxylic acid ethyl esters & diethyl 2,6-dimethyl-4-substitutedphenyl-1,4-dihydropyridine-3,5-dicarboxylate in solvent-less media under ultrasonic irradiation



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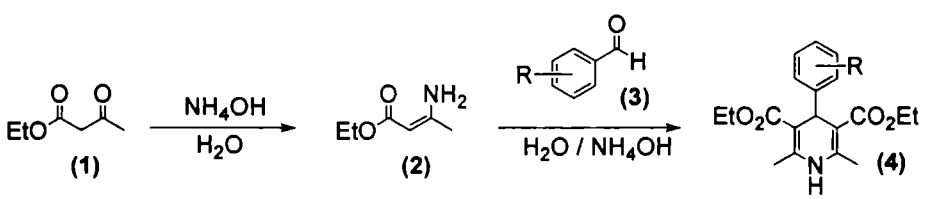
4-Phenyl-1,4-Dihydropyridines by Hantzsch Reaction in Water

F. M. da Silva, M. Gonçalves, F. T. Ferre, J. D. Sena, R. B. Coelho and J. Jones Junior*

Dept. Química Orgânica - Instituto de Química – UFRJ - CP 68.584, CEP 21941-972, Rio de Janeiro, RJ, Brasil



3	a	b	c	d	e	f
R	4-OCH_3	4-Cl	4-NO_2	H	2-OCH_3	2-Cl

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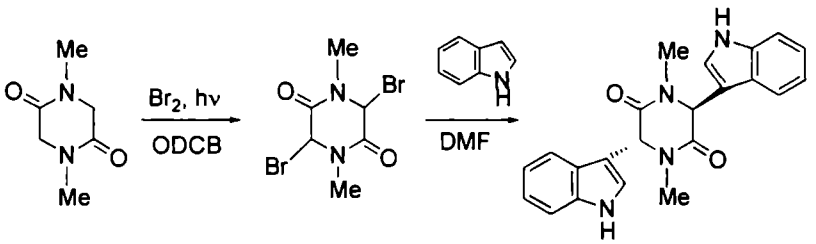
An Improved, One-Pot Synthesis of 3,6-Bis(3'-indolyl)-1,4-dimethylpiperazine-2,5-dione

Darryl Miles and Christine Whitlock*

Department of Chemistry, Georgia Southern University, Statesboro, Georgia 30460, USA



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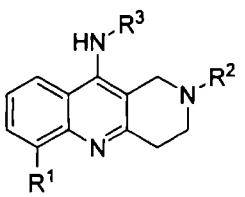
Facile synthesis of 1,2,3,4-tetrahydrobenzo[*b*][1,6]naphthyridines

Ewa Wolinska, Ekaterina Paliakov and Lucjan Strekowski*

Department of Chemistry, Georgia State University, Atlanta, Georgia 30302-4098, USA



R^1 = H, OMe, OH
R^2 = Me, Et
R^3 = aminoalkyl

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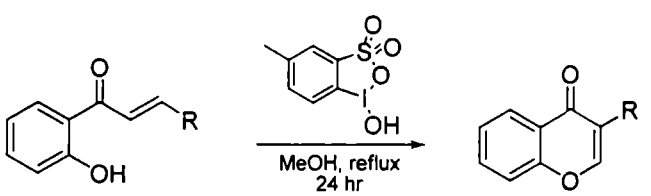
Oxidative rearrangements of 2'-hydroxychalcones with 1*H*-1-hydroxy-5-methyl-1,2,3-benziodoxathiole 3,3-dioxide

Michael W. Justik and Alyssa K. Zimmerman

Penn State Erie, The Behrend College, 5091 Station Road, Erie, PA 16563-0203, USA



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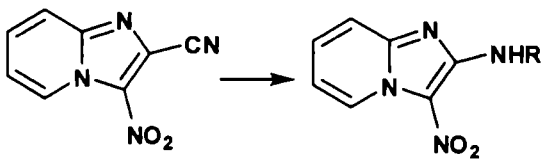
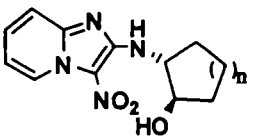
On the reaction of 3-nitroimidazo[1,2-*a*]pyridine-2-carbonitrile with amino acid derivatives

Jorge Hernández, Héctor Salgado-Zamora,* Humberto Cervantes, Lucina Arias and Mą. Elena Campos-Aldrete

Departamento Químico Orgânica, Escuela Nacional Ciências Biológicas. IPN México 11340 D.F.



R =
CH_2CO_2H,
$CH(CH(Me)_2)CO_2H$,
CH_2CH_2OH,
$CH(Ph)CH_2OH$,
$CH(Et)CH_2OH$,
$CH(Me)CH_2OH$,
$CH_2CH_2NH_2$ and



n= 1,2

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Convenient synthesis of 3,4-dihydro-2(1*h*)-quinolinones from malonate Derivatives

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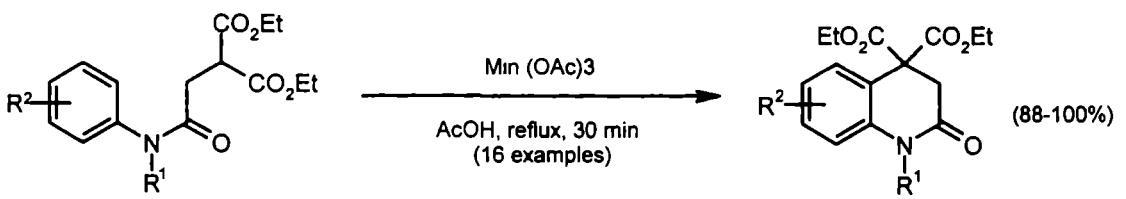
Department of Chemistry, Graduate School of Science and Technology, Kumamoto University, Kurokami 2-39-1, Kumamoto 860-8555, Japan

The diethyl 2-[2-(*N*-arylamino)-2-oxoethyl]malonates underwent manganese(III)-mediated oxidative intramolecular cyclization to produce the 4,4-bis(ethoxycarbonyl)-3,4-dihydro-2(1*H*)-quinolinones in excellent yields.



R1 = Me, Et, i-Pr, n-Bu, Ph, Bn; R2 = H, 4-MeO, 3-MeO, 4-Me, 4-Cl, 4-F, 4-NO2, 4-Ac