

Graphical Abstracts

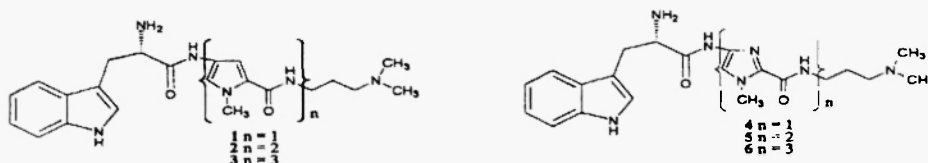
Heterocycl. Commun. 9 (2003) 551-554

Synthesis and In Vitro Anticancer Evaluation of (S)-2-Amino-3-(3-indolyl)propionic acid (L-Tryptophan) Pyrrole & Imidazole Polyamide Conjugates

Rohitash Kumar and J. William Lown*

Department of Chemistry, University of Alberta, Edmonton, AB, Canada, T6G 2G2

The synthesis and in vitro anticancer evaluation of (S)-2-amino-3-(3-indolyl)propionic acid (L-tryptophan) pyrrole & imidazole polyamide conjugates 1-6 as potential anticancer agents are described.

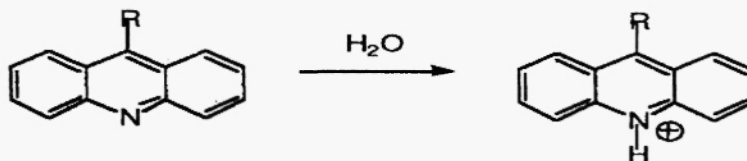


Heterocycl. Commun. 9 (2003) 555-558

CORRELATION OF pK_a AND ACRIDINE SUBSTITUTION

Michael D. Mosher* and Eric Johnson

Department of Chemistry, University of Nebraska at Kearney, Kearney, NE 68849-1150



$$\text{pK}_a = -0.3022 \Delta E_{\text{H}_{\text{max}}} + 47.71$$

$$R^2 = 0.9484, \quad n = 6$$

Heterocycl. Commun. 9 (2003) 559-566

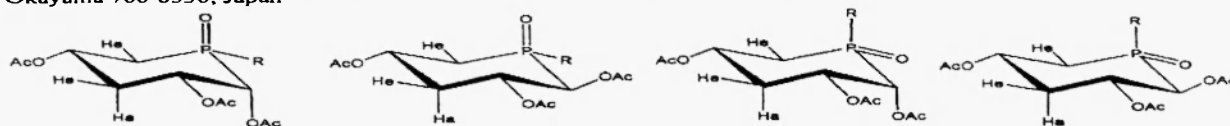
SYNTHESIS AND STRUCTURE ANALYSES OF 1,2,4-TRI-*O*-ACETYL-3,5-DI-DEOXY-5-C-(ISOPROPYL- AND PHENYL-PHOSPHINYL)-D-erythro-PENTOPYRANOSIDES

Tatsuo Oshikawa,^{a*} Kuniaki Seo,^{a*} Mitsuji Yamashita,^b Tadashi Hanaya,^c Yoshihiro Hamazu,^a and Hiroshi Yamamoto^c

a) Department of Material Sciences and Biochemistry, Numazu College of Technology, Numazu 410-8501, Japan

b) Department of Materials Chemistry, Faculty of Engineering, Shizuoka University, Hamamatsu 432-8561, Japan

c) Department of Chemistry, Faculty of Science, Okayama University, Tsushima-naka, Okayama 700-8530, Japan



Synthesis and structure analyses of the title compounds were performed, and the conformations and configurations of these phospho sugars were determined by ¹H NMR and X-ray crystallographic analyses.

**SYNTHESIS OF 7-(CHROMON-3-YL)-6a,7-DIHYDRO-6H-[1]-
BENZOPYRANO[3,4-c][1,5]BENZOTHAZEPINES AND 2-
ARYL-4-(CHROMON-3-YL)BENZOPYRANO[4,3-b]
PYRIDINES**

G. Jagath Reddy *, D. Latha, C. Thirupathiah and K. Srinivas Rao

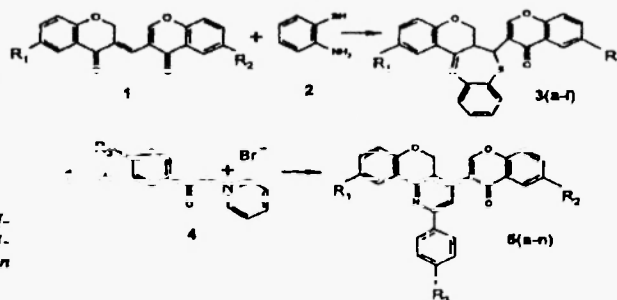
R & D Laboratories, Dr. Jagath Reddy's Heterocyclics, 81, S.V. Co-
op Industrial Estate, Balanagar, Hyderabad – 500 037, India. e-mail-
jagathreddy@usa.net; Fax # 91-40-23773487.

and

Md. Khalilullah

Department of Chemistry, Jawaharlal Nehru Technological
University, Hyderabad-500072, India.

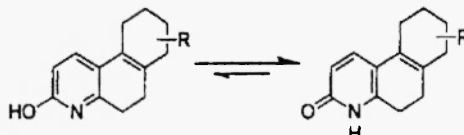
A series of 7-(chromon-3-yl)-6a,7-dihydro-6H-[1]-
benzopyrano[3,4-c][1,5] benzothiazepines (3a-l) and 2-Aryl-4-
(chromon-3-yl)benzopyrano[4,3-b]pyridines (5a-n) have been
synthesized from benzopyranomethynylbenzopyranones (1)



**A SOLUTION-PHASE PROCEDURE FOR
THE PREPARATION OF 4-AZASTEROID MIMETICS**

Marcus C. Ruda^{†,‡}, Jan Bergman[‡], Konrad Koehler[†] and Ye Liu[†]

[†]Karo Bio AB, Novum, SE-14157 Huddinge, Sweden; [‡]Unit for Organic Chemistry, CNT, Department of Biosciences at
Novum, Karolinska Institute, Novum Research Park, SE- 141 57 Huddinge, Sweden; [§]Södertörn University College, SE-141
04 Huddinge Sweden



**EPOXIDATION OF 1,4-DIENYL 3-KETO STEROIDAL COMPOUNDS BY
DIMETHYLDIOXIRANE: KINETICS**

Angela M. Navarro-Eisenstein Pedro C. Vasquez, Paul J. Franklin and A.L. Baumstark*

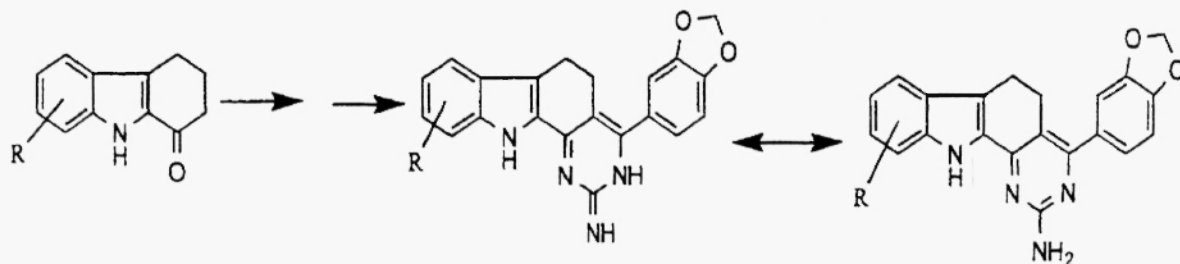
Department of Chemistry, Center for Biotech and Drug Design

Georgia State University, Atlanta, Georgia 30303-3083, USA

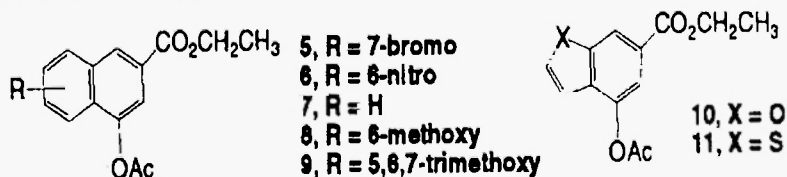
Abstract. The epoxidation of 1,4-dienyl 3-keto steroidal compounds by dimethyldioxirane yields mono-
epoxides as the primary products as reported in the literature. Kinetic data show the 1,4-dienyl 3-keto
system to be at least ten fold more reactive than simple α,β -unsaturated systems.

A convenient synthesis of functionalised pyrimido[4,5-*a*]carbazoles

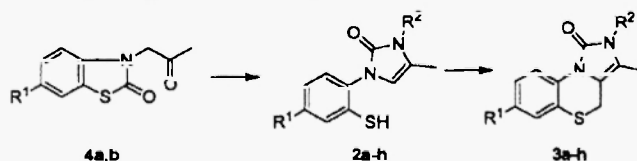
Vandana. T & K.J. Rajendra Prasad

AN EFFICIENT METHOD FOR THE SYNTHESIS OF SUBSTITUTED
4-ACETOXYNAPHTHALENE-2-CARBOXYLATE ESTERS,
ETHYL 4-ACETOXYBENZOFURAN-6-CARBOXYLATE,
AND ETHYL 4-ACETOXYBENZOTHIOPHENE-6-CARBOXYLATE

Hari Pati, Regan LeBlanc,
Moses Lee
Department of Chemistry, Furman
University, Greenville, SC 29613

AN EFFICIENT APPROACH TO THE IMIDAZO[5,1-*c*]
[1,4]BENZOTHAZINE SKELETON. A NOVEL
TRICYCLIC RING SYSTEM

Katia Petrova, Ognyan Petrov*, Antonina Antonova, and Veneta Kalcheva
Sofia University "St. Kl. Ohridski", Faculty of Chemistry,
1 James Bourchier Blvd, 1164 Sofia, Bulgaria
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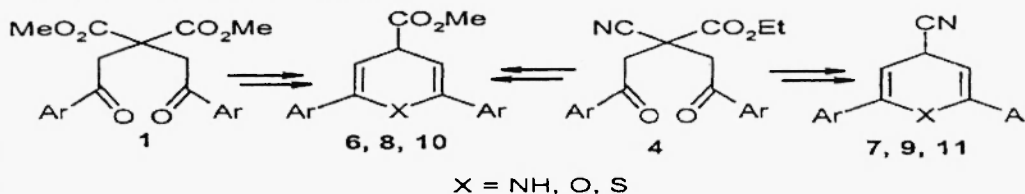


The reaction of 1-(2-mercaptophenyl)-2*H*-imidazol-2-ones **2a-h** with excess formaldehyde in acid medium resulted in the formation of 2,4-dihydro-1*H*-imidazo[5,1-*c*][1,4]benzothiazin-1-one **3a-h**

**1,5-DIARYL-3,3-DISUBSTITUTED-1,5-PENTANEDIONE -
A SYNTHON FOR 2,4,6-TRISUBSTITUTED HETEROCYCLES**

V. Padmavathi*, A. Balaiah, B. Jagan Mohan Reddy and A. Padmaja
Department of Chemistry, Sri Venkateswara University, Tirupati-517 502, India

2,4,6-Trisubstituted heterocycles are prepared by the functionalization of *gem*-disubstituents and keto functionalities in 1,5-diaryl-3,3-dimethoxycarbonyl-1,5-pentanedione (1) and 1,5-diaryl-3-cyano-3-ethoxycarbonyl-1,5-pentanedione (4)

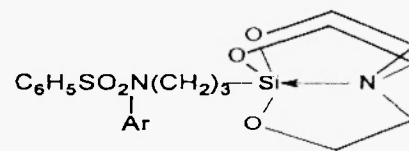


**SYNTHESIS AND CHARACTERIZATION OF 1-ARYLSULFONYL
AMINOPROPYL SILATRANES**

Zhonghua Li and Demei Tian

Department of Chemistry, Central China Normal University, Wuhan 430079 China

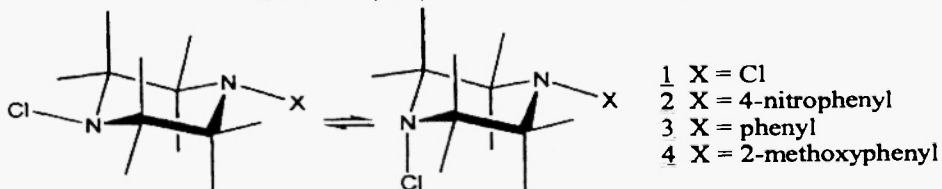
1-N-arylsulfonyl aminopropyl silatranes (I-VII) were synthesized by the reaction of 1-aminopropylsilatrane and/or 1-N-phenylaminopropylsilatrane with aryl sulfonyl chlorides. Their structures were characterized by means of IR, ¹HNMR, MS and elemental analysis. The antibacterial activities were also carried out, and the result showed that the target compounds were activities against staphylococcus aureus.



CONFORMATIONAL STUDY OF N-CHLOROPIPERAZINES

A. C. Ferreira, R. M. A. Martins, L. R. Galveia, F. M. S. Brito Palma*

CECUL and Department of Chemistry and Biochemistry, Faculty of Sciences, University of Lisbon, Rua Ernesto Vasconcelos, C8, 1749-016 Lisbon, Portugal



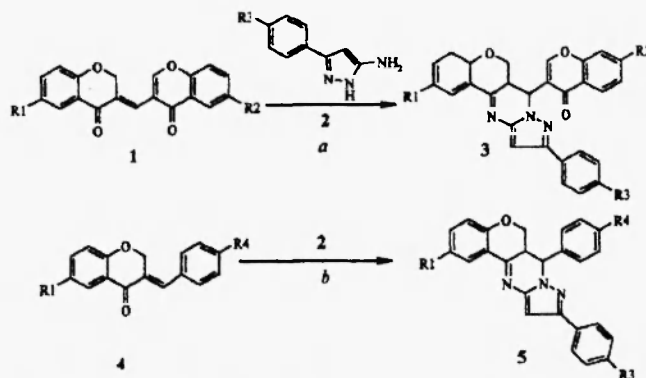
Synthesis of 7-Aryl / chromonyl substituted benzopyrano[4,3-d]pyrazolo[1,5-a]pyrimidines by reaction of 5(3)-Aminopyrazoles

G. Jagath Reddy *, D. Latha, S. Sailaja and K. Srinivasa Rao
R & D Laboratories, Dr. Jagath Reddy's Heterocyclics, 81, S.V. Co-op Industrial Estate, Balanagar, Hyderabad - 500 037, India. e-mail- jagathreddy@usa.net; Fax # 91-40-23773487.

and

Md. Khalilullah
Department of Chemistry, Jawaharlal Nehru Technological University, Hyderabad-500072, India.

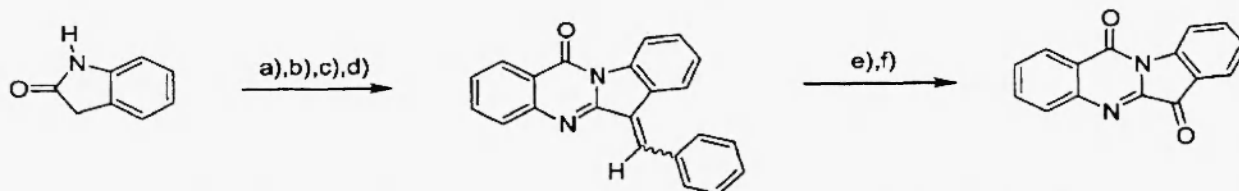
A series of 7-Aryl/chromonyl substituted benzopyrano[4,3-d]pyrazolo[1,5-a]pyrimidines (3a-g and 5a-c)' have been prepared by reaction of 5(3)-Aminopyrazoles(2).



A SIMPLE SYNTHESIS OF TRYPTANTHRIN

Jong Keun Son, Jae Gyu Park, Yurngdong Jahng*

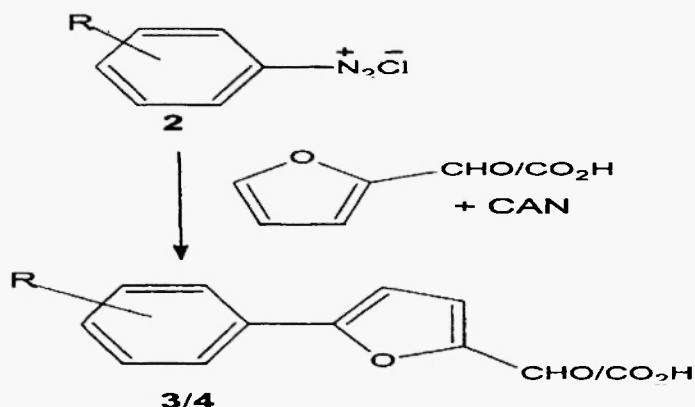
College of Pharmacy, Yeungnam University, Kyongsan 712-749, Korea



Key: a) HCl, b) POCl₃, c) methyl anthranilate, d) PhCHO/Ac₂O, e) O₃, f) Me₂S

A new method of synthesis of furan-2-carboxaldehyde and 5-(Substituted-phenyl)-furan-2-carboxylic acids using ceric ammonium nitrate is reported.

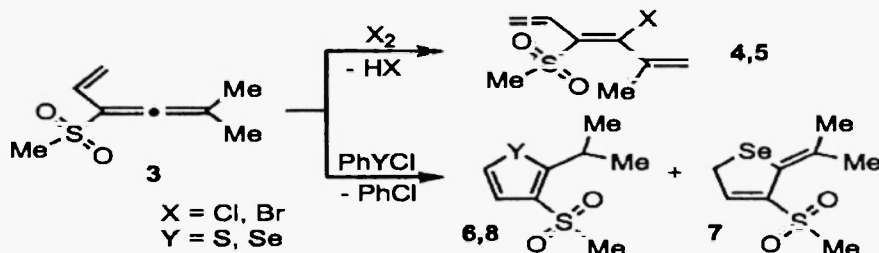
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Department of Chemistry,
Mangalore University,
Mangalagangothri-574 199,
INDIA



ALKATRIENYL SULFOXIDES AND SULFONES. PART III.¹
5-METHYL-3-(METHYLSULFONYL)HEXA-1,3,4-TRIENE -
SYNTHESIS AND ELECTROPHILE-INDUCED CYCLIZATION REACTIONS

VALERIJ CH. CHRISTOV* and IVAYLO K. IVANOV

Department of Chemistry, University of Shoumen, BG-9700 Shoumen, Bulgaria, E-Mail: vchristo@shu-bg.net

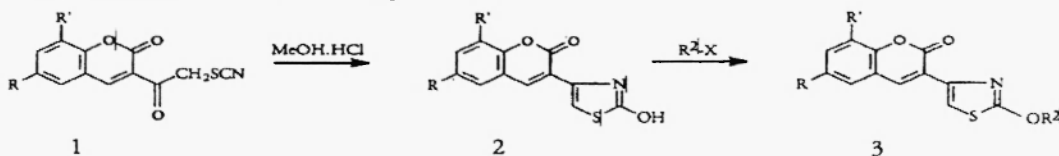


A FACILE SYNTHESIS OF SOME NEW 3-(2-HYDROXY-4-THIAZOLYL) COUMARINS AND THEIR DERIVATIVES

V. Rajeswar Rao* and V. Ravinder Reddy

Department of Chemistry, National Institute of Technology, Warangal (A.P.) 506 004, India

Reaction of 3-(2-bromoacetyl)coumarins with potassium thiocyanate provides 3-(2-thio- cyanatoacetyl)coumarins which on treatment with methanolic.HCl gives 3-(2-hydroxy-4-thiazolyl)-2H-1-benzopyran-2-ones (2). 2 undergoes condensation with alkyl, aralkyl halides to give corresponding ethers (3). The structure of newly synthesized compounds were established on the basis of spectral data.

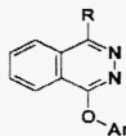


NEW 1,4-DISUBSTITUTED PHTHALAZINES:
SYNTHESIS, STRUCTURE AND
HERBICIDAL EVALUATION

Constantin Bele^a and Mircea Darabantu^b

^aUniversity of Agricultural Sciences and Veterinary Medicine, RO-3400 Cluj-Napoca, Romania

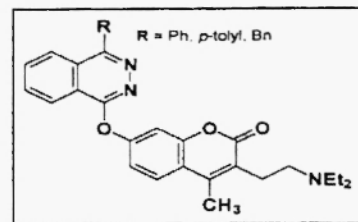
^b"Babes-Bolyai" University, Department of Organic Chemistry, 11 Aranyi Janos str., RO-3400 Cluj-Napoca, Romania



$R = Ph, p\text{-tolyl}, Bn$

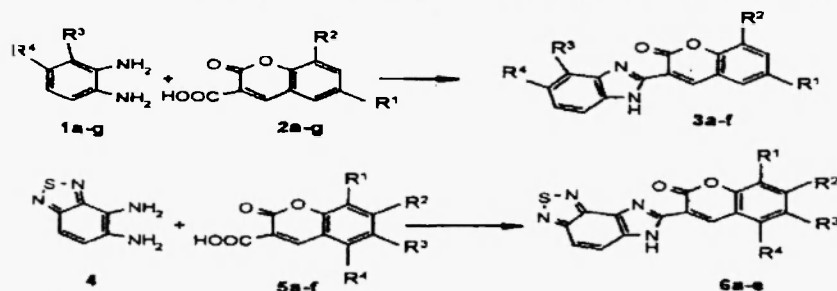
$Ar = o\text{-Br-C}_6\text{H}_4, p\text{-O}_2\text{N-C}_6\text{H}_4, \alpha\text{-naphthyl}, \beta\text{-naphthyl}, p\text{-Ph-C}_6\text{H}_4$

18 new examples



Synthesis and Anticancer Activity of Novel BenzimidazoleChromenes, ThiadiazolylChromenes Under Microwave Irradiation Conditions

P.Narsimha Reddy, Y.Thirupathi Reddy, M.Kanakalingeswara Rao and B.Rajitha*



SYNTHESIS OF NEW SUBSTITUTED 3-MERCAPTO-1,2,4-TRIAZOLES POSSESSING 5-H-DIBENZO[a,d]CYCLOHEPTENE MOIETIES.

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^aOrganic Chemistry Department, Faculty of Pharmacy, Traian Vuia Street 6, Bucharest, Romania

^b"C. D. Nenitzescu" Institute of Organic Chemistry, Romanian Academy, Splaiul Independentei, 202B, 71102, Bucharest, Romania

^cOrganic Chemistry Laboratory, "Politehnica" University Bucharest, Splaiul Independentei 313, 76206, Bucharest, Romania

Seven new thiosemicarbazides **2a-g** bearing 5H-dibenzo[a,d]cycloheptenyl-methyl group at N¹ and different alkyl or aryl substituents at N⁴ were synthesized using classical procedures. ¹H-NMR analysis indicated the existence of two conformational isomers, a major axial (about 75%) and a minor equatorial one (25%) which are interconvertible by middle ring inversion. Cyclization of **2a-g** in NaOH solution afforded the corresponding 3-mercapto 1,2,4-triazoles **3a-g** which were separated as pure axial isomers. All the new compounds were extensively characterized by IR-, UV-, ¹H-NMR and ¹³C-NMR spectroscopy and will be screened as carbonic anhydrase inhibitors in order to test the application of "bulky scaffold" strategy in this class of compounds

