

## Graphical Abstracts

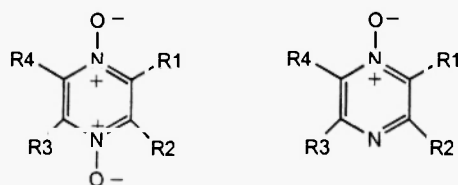
Heterocycl. Commun. 7 (2001) 307-312

### OXIDATION METHODS FOR AROMATIC DIAZINES: SUBSTITUTED PYRAZINE-*N*-OXIDES, PYRAZINE-*N,N'*-DIOXIDES, AND 2,2':6',2''-TERPYRIDINE-1,1''-DIOXIDE

Scott E. McKay<sup>a\*</sup>, Joseph A. Sooter<sup>a</sup>, Satish G. Bodige<sup>b</sup> and Silas C. Blackstock<sup>b</sup>

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<sup>b</sup>Department of Chemistry, The University of Alabama, Tuscaloosa, AL 35487, USA



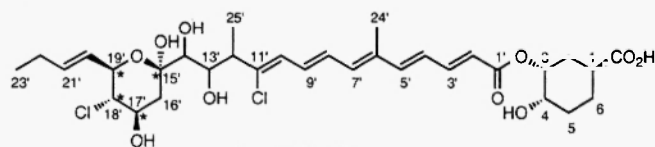
Heterocycl. Commun. 7 (2001) 313-316

### STEREOCHEMISTRY OF ENACYLOXINS 2. STRUCTURE ELUCIDATION OF DECARBAMOYL ENACYLOXIN IIa and IVa, NEW MEMBERS OF ENACYLOXIN ANTIBIOTICS FROM *Frateuria* sp. W-315

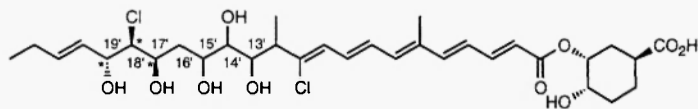
Toshihiko Watanabe,<sup>a</sup> Hiromasa Kiyota,<sup>b\*</sup> Ryo Takeuchi,<sup>b</sup> Keijiro Enari<sup>a</sup> and Takayuki Oritani<sup>b</sup>

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<sup>b</sup>Graduate School of Agricultural Science, Tohoku University Sendai, Japan



dec ENX IIa



dec ENX IVa

The structures of decarbamoyl enacyloxin IIa and IVa, new members of enacyloxins (ENXs) isolated from the culture extract of *Frateuria* sp. W-315, were reported. Formation of these compounds were catalyzed by enzymes produced by the fungus. From the coupling constant values of the hemiacetal part of dec ENX IIa, the (17'*R*\*, 18'*S*\*, 19'*R*\*) relative configuration of ENXs was also elucidated.

Heterocycl. Commun. 7 (2001) 317-322

### New synthesis of O- and S-glycosyl derivatives of 2-chloro-3-cyano-5-nitropyridine

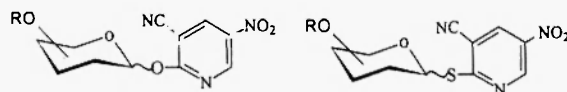
G. Pastuch<sup>a</sup>, I. Wandzik<sup>a</sup>, W. Szeja<sup>a</sup>, G. Gryniewicz<sup>b</sup>, J. Ramza<sup>b</sup>, W. Priebe<sup>c</sup>, W. Pucko<sup>b</sup>

<sup>a</sup>Silesian Technical University, Department of Chemistry, ul. Krzywoustego 8, 44-100 Gliwice, Poland

<sup>b</sup>Pharmaceutical Research Institute, ul. Rydygiera 8, 01-793 Warszawa, Poland

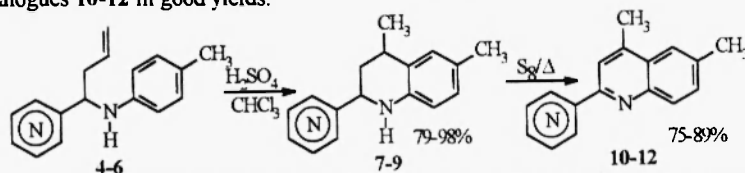
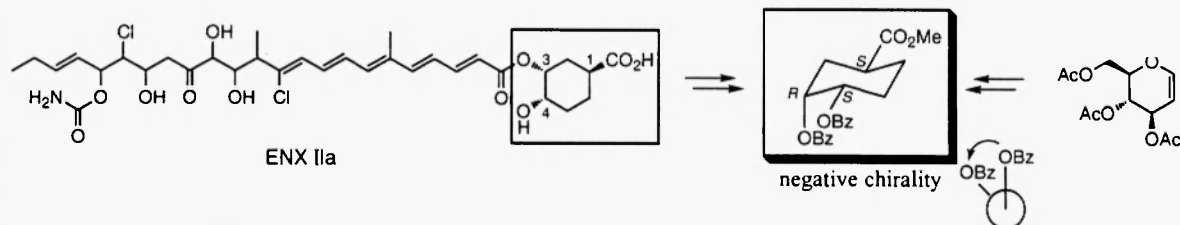
<sup>c</sup>The University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Blvd., Houston, Box 60, TX 77030, USA

Several O- and S-heteroaryl glycosides were formed in mild conditions in reaction between 2-chloro-3-cyano-5-nitropyridine as alkylating reagent and reducing (or 1-thio respectively) monosaccharides.

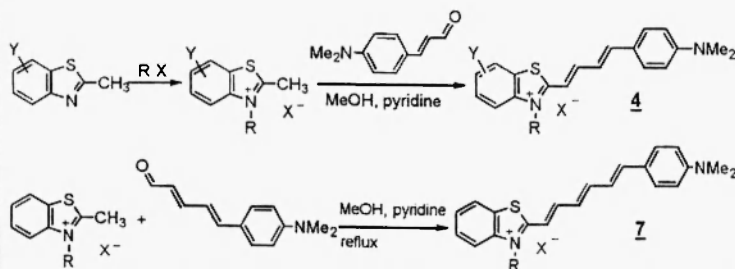


## 4-N-ARYL(BENZYL)AMINO-4-HETARYL-1-BUTENES

## AS BUILDING BLOCKS IN HETEROCYCLIC SYNTHESIS. I. NEW ROUTE TO 4,6-DIMETHYL-2-PYRIDYLQUINOLINES FROM THE 4-N-p-METHYLPHENYLAMINO-4-PYRIDYL-1-BUTENES

Leonor Y. Vargas Mendez<sup>a</sup>, Vladimir Kouznetsov<sup>a</sup>, Elena Stashenko<sup>a</sup>, Ali Bahsas<sup>b</sup>, and Juan Amaro-Luis<sup>a</sup><sup>a</sup> - Research Center for Biomolecules, Laboratory of Fine Organic Synthesis, School of Chemistry, Industrial University of Santander, A.A. 678, Bucaramanga, Colombia. <sup>b</sup> - Laboratorio de RMN, Grupo de Productos Naturales, Departamento de Química, Universidad de los Andes, Mérida, Venezuela. 5101.Mediated-acid intramolecular cyclisation of 4-N-p-methylphenylamino-4-pyridyl-1-butenes **4-6** was used to obtain new C-2 pyridyl substituted 4,6-dimethyl-1,2,3,4-tetrahydroquinolines **7-9**, which were oxidised then to their aromatic analogues **10-12** in good yields.STEREOCHEMISTRY OF ENACYLOXINS I. ABSOLUTE CONFIGURATION OF THE CYCLOHEXANE RING PART OF ENACYLOXINS, A SERIES OF ANTIBIOTICS FROM *Frateuria* sp. W-315Toshitaka Fujimori,<sup>a</sup> Osamu Nakayama,<sup>a</sup> Hiromasa Kiyota,<sup>\*</sup> Yu-ichi Kamijima,<sup>a</sup> Toshihiko Watanabe<sup>b</sup> and Takayuki Oritani<sup>\*</sup><sup>a</sup>Graduate School of Agricultural Science, Tohoku University<sup>b</sup>Faculty of Engineering, Tohoku Institute of Technology Sendai, JapanThe absolute structure of the cyclohexane part of ENX IIa was determined to be 1*S*, 3*R*, 4*S* by the CD chirality rule of the corresponding dibenzoate and the chemical synthesis from tri-*O*-acetyl-D-glucal.

## COMPUTER PROJECTED BENZOTHAZOLE DERIVATIVES. SYNTHESIS, STRUCTURE AND BIOLOGICAL STUDY OF NEW PUSH-PULL CONJUGATED BENZOTHAZOLIUM SALTS

R. Buffa<sup>1</sup>, P. Zahradnik<sup>1\*</sup>, and P. Foltinova<sup>2†</sup><sup>1</sup>Department of Organic Chemistry, <sup>2</sup>Institute of Subcellular Biology Faculty of Natural Sciences, Comenius University, 842 15 Bratislava, Slovak Republic

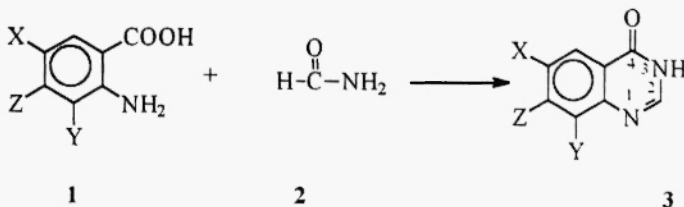
<u>4</u>	Y	R	X
4a	H	Me	I
4b	H	allyl	Br
4c	H	propargyl	Br
4d	5-CH <sub>3</sub>	allyl	Br
4e	5-CH <sub>3</sub>	propargyl	Br
4f	6-OCH <sub>3</sub>	allyl	Br

<u>7</u>	R <sub>1</sub>	X
7a	Me	I
7b	allyl	Br
7c	propargyl	Br

### Microwave Enhanced Synthesis of Quinazolines in Solvent-free Condition

Reaction of anthranilic acid derivatives with formamide in solvent-free condition on silica gel, acidic alumina, and montmorillonite K-10 under microwave irradiation gave quinazolines in good yields.



Saeed Balalaie\*<sup>1</sup>, Ali Sharifi<sup>2</sup>, Behzad Ahangarian<sup>1</sup>, Elahe Kowsari<sup>1</sup>

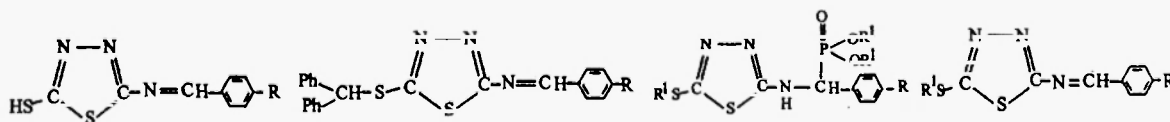
<sup>1</sup>Department of Chemistry, K. N. Toosi University of Technology P.O. Box 15875-4416 Tehran - Iran, Fax: +98-21-2853650, E-mail: balalaie@sc.kntu.ac.ir

<sup>2</sup>Chemistry and Chemical Engineering Research Center of Iran P.O.Box 14335-186 Tehran- Iran

### THE BEHAVIOR OF DIPHENYLMETHYLENÉTRI-PHENYLPHOSPHORANE AND PHOSPHITES TOWARD 5-SUBSTITUTED -1,3,4-THIADIAZOL DERIVATIVES

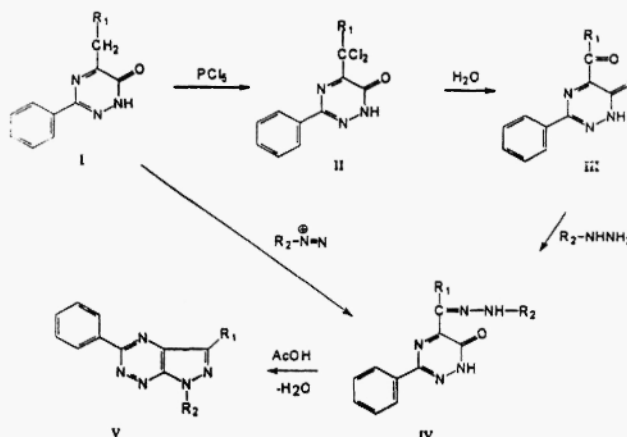
MONA H. N. ARSANIOUS

Department of Pesticide Chemistry, National Research Centre, Dokki, Cairo, Egypt.

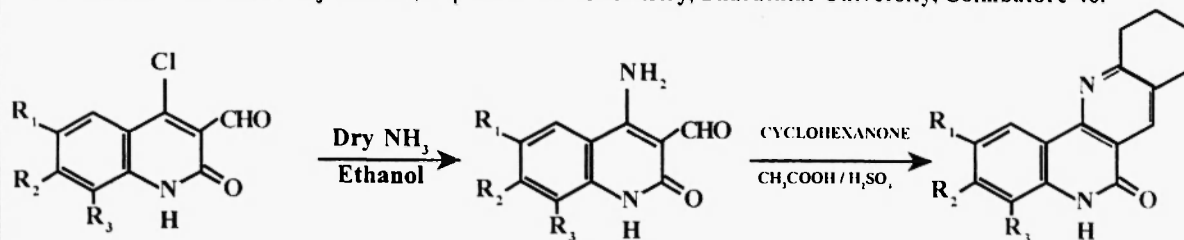


### SYNTHESIS OF SOME NEW 3,5,7-TRISUBSTITUTED PYRAZOLO[4,3-e]1,2,4-TRIAZINES

Gabriela Zedniková, Karel Nálepa and Thomáš Gucký  
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Palacký University, tř Svobody 8,  
771 46, Olomouc, Czech Republic

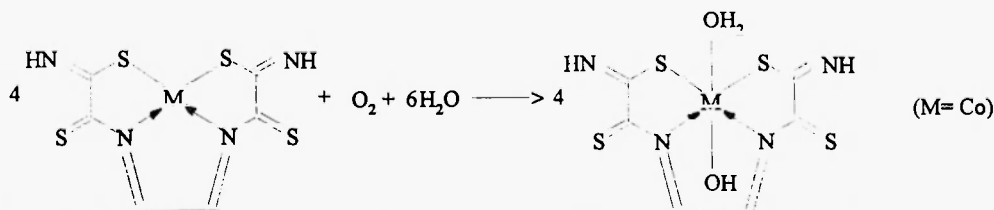
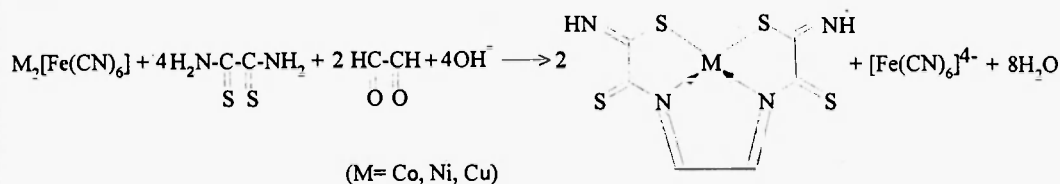


**A CONVENIENT SYNTHESIS OF 8,9,10,11-TETRAHYDROBENZO[b,h][1,6]NAPHTHYRIDIN-6(5H)ONES**  
 G. Arul Prakash and S.P. Rajendran\*, Department of Chemistry, Bharathiar University, Coimbatore-46.



**Co(II,III), Ni(II) AND Cu(II)- CONTAINING MACROCYCLIC COMPOUNDS WITH 2,7- DITHIO- 3,6-DIAZAOCTADIEN- 3,5-DITHIOAMIDE- 1,8 OBTAINED IN GELATIN-IMMOBILIZED MATRIX BY TEMPLATE SYNTHESIS PROCESS**

Oleg V. Mikhailov\*, Albina I. Khamitova and Liliya S. Mingalieva  
 Kazan State Technological University, K.Marx Street 68, 420015 Kazan, Russia

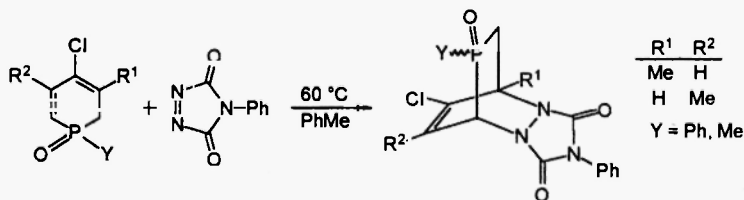


**NOVEL BRIDGED P-HETEROCYCLES: THE FIRST 2,3,5-DIAZAPHOSPHABICYCLO[2.2.2]OCT-7-ENE 5-OXIDES**

György Keglevich,\* Helga Szelke<sup>a</sup> and László Tóke<sup>d</sup>

\* Department of Organic Chemical Technology, Budapest University of Technology and Economics, H-1521 Budapest, Hungary.

<sup>b</sup> Research Group of the Hungarian Academy of Sciences, Budapest University of Technology and Economics, H-1521 Budapest, Hungary



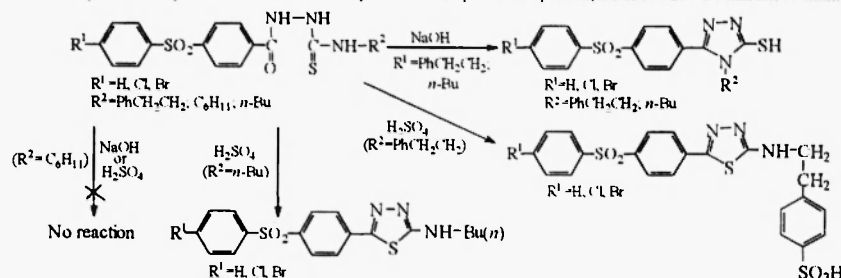
**SYNTHESIS OF NEW 4-SUBSTITUTED-1-ARYL-THIOSEMICARBAZIDES AND THEIR CYCLIZATION TO MERCAPTOTRIAZOLES AND AMINOTHIADIAZOLES**

Ioana Șaramet<sup>a</sup>, Constantin Drăghici<sup>b</sup>, Corina Bărcuțean<sup>a</sup>, Valeria Rădulescu<sup>a</sup>, Teodora Loloiu<sup>a</sup> and Mircea D. Banciu<sup>c\*</sup>

<sup>a</sup> Organic Chemistry Department, Faculty of Pharmacy, Traian Vuia Street 6, Bucharest, Romania

<sup>b</sup> "C. D. Nenitescu" Institute of Organic Chemistry, Romanian Academy, Splaiul Independenței 202B, Bucharest, Romania

<sup>c</sup> Organic Chemistry Laboratory, "Politehnica" University Bucharest, Splaiul Independenței 313, 76206 Bucharest, Romania

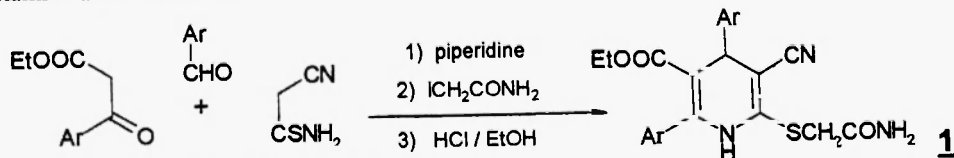


**CONVENIENT ONE-POT SYNTHESIS OF 2-CARBAMOYLMETHYLTHIO-3-CYANO-4,6-DIARYL-5-ETHOXYCARBONYL-1,4-DIHYDROPYRIDINES**

A. Krauze\*, L. Sīle, G. Duburs

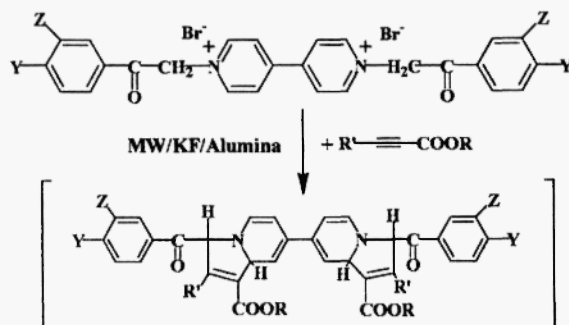
Latvian Institute of Organic Synthesis, Riga, Aizkraukles 21, LV-1006, Latvia

Convenient method of one-pot synthesis of 2-carbamoylmethylthio-3-cyano-4,6-diaryl-5-ethoxycarbonyl-1,4-dihydropyridines **1** have been elaborated by condensation of ethyl 4-nitrobenzoylacetate, an aromatic aldehyde and cyanothioacetamide in the presence of piperidine with subsequent treatment with iodoacetamide and acidification.



**Synthesis of Substituted 7,7'-bis-Indolizines via 1,3-Dipolar Cycloaddition under Microwave Irradiation**

Rodica M. Dinica<sup>a</sup> and Claudio Pettinari<sup>b\*</sup>



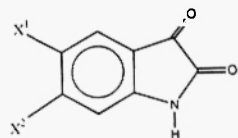
## SUBSTITUENT EFFECTS AND VIBRATIONAL

COUPLING IN INDOLE-2,3-DIONES: AN IR,  
NMR AND THEORETICAL STUDY

H.A. Radhy<sup>1</sup>, G.F. Fadhil<sup>1</sup>, A. Perjéssy<sup>2\*</sup>, E. Kolehmainen<sup>3</sup>, W.M.F. Fabian<sup>4</sup>, M. Samalíková<sup>2</sup>, K. Laihia<sup>1</sup>,  
Z. Susteková<sup>2</sup>

<sup>1</sup>College of Science, University of Basrah, Iraq, <sup>2</sup>Department of Organic Chemistry and Institute of Chemistry, Faculty of Natural Sciences, Comenius University, SK - 842 15 Bratislava, Slovak Republic, <sup>3</sup>Department of Chemistry, University of Jyväskylä, FIN - 40351, Jyväskylä, Finland, <sup>4</sup>Institute of Chemistry, Karl Franzens University, A - 8010 Graz, Austria

The IR and <sup>1</sup>H, <sup>13</sup>C, <sup>15</sup>N NMR spectral data for substituted indistins are reported. The correlation analysis using experimental spectral data, substituent constants and theoretical AM1 values enabled to correctly assign the vibrationally coupled  $\nu(\text{C}=\text{O})$  absorption bands. The <sup>13</sup>C NMR chemical shifts were also correctly assigned by 2D techniques.



$X^1, X^2 = \text{H, H; CH}_3, \text{H; OCH}_3, \text{H; F, H; Cl, H; Br, H; NO}_2, \text{H; COCH}_3, \text{H; H, CH}_3; \text{H, OCH}_3; \text{H, Cl; H, Br}$

HETEROCYCLIC COMPLEXES OF PALLADIUM (II) : TEMPLATE SYNTHESIS,  
SPECTROSCOPIC STUDIES AND BIOCHEMICAL ASPECTS

Kripa Sharma, Ratan Swaroop and R.V. Singh\*

Department of Chemistry, University of Rajasthan, Jaipur - 302 004

Synthesis and spectroscopic studies of new heterocyclic unsymmetrical tetraazamacrocyclic complexes of palladium (II) have been reported

