## **HETEROCYCLIC COMMUNICATIONS**

An International Journal in Heterocyclic Chemistry

### Published bimonthly by **Freund Publishing House Ltd.,** Suite 500, Chesham House, 150 Regent Street, London W1R 5FA, England

### Notes for the preparation of Camera-Ready Manuscripts

Heterocyclic Communications seeks to publish preliminary communications and full length research papers on all phases of heterocyclic chemistry including inorganic ring systems. All papers to the journal will be reproduced from author's typescripts (camera-ready manuscript) by a reduction of 25%.

### Guidelines for Authors

### 1. Preparation and Mailing of Manuscripts

Author(s) should mail manuscript to respective editor in triplicate. All manuscript should be made on a computer and printed out by a laser printer preferably at 600 dpi or higher resolution. Author(s) should send the editor a floppy disc (3 1/2" or 5 1/4") in DOS format (1.4MB for 3 1/2" and 1.25MB for 5 1/4") which contains a combined manuscript file including computer drawn structural formulas, figures, tables etc. For the all type setting, Times Roman 10 Pt. font or corresponding font set should be used. Preferably, file format of the manuscript is Adobe PageMaker 6.0/5.0 or MS Word 97 versions for MS Windows. Structures may be drawn by programs like Chem Draw, Chem Win, Chem Window/Coral Draw, Chem Text. Apple Macintosh and other word processor users should convert the file format to those readable by these softwares. Some times RTF (Rich Text Format) and PDF (Portable Document Format) are effective. Details of the program(s) used should be also provided. If structures/diagrams have been prepared using program(s) other than those stated, then structures/ diagrams should be converted into windows meta file format. Details of the program(s) used to draw structures/diagrams should be also provided. Manuscript should end with even numbered page (viz 2,4,6...). Normally manuscript not exceeding 6 pages, if they feel that it is appropriate to do so.

All manuscripts except from North America, European countries and Japan should be mailed to Dr. R.R. Gupta, Editorin-Chief, Heterocyclic Communications, 10A, Vasundhara Colony, Tonk Road, Jaipur-302018, India. Authors from Europe should mail manuscripts to Prof. Jacques Barbe, Editor for European Countries, Faculte de Pharmacie, 27, Bd. Jean-Moulin, 13385 Marseille Cedex 5, France. Authors from North America should mail manuscripts to Prof. David W. Boykin, Department of Chemistry, Georgia State University, University Plaza, Atlanta, Georgia 30303-3083, USA. Authors from Japan should mail manuscripts to Prof. S. Eguchi, Department of Molecular Design and Engineering, Graduate School of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464-8603, Japan.

### 2. Organization of the Manuscript

For

2.1 Title : It should be clear, concise, and informative. It should be typed with words all in bold face capitals, single spaced, centered on the width of the first page, 2 cm below the top of typing area.

2.2 Author(s): After 4 single spaces from the title, authors names and addresses should be given on separate lines, typed single spaced, centered on the width of the first page. The name of the author to whom correspondence should be directed should be marked with an asterisk as superscript.

2.3. Abstract : After 4 single spaces from authors address, a short abstract (50-100 words) describing results, methodology employed, conclusions etc., should be placed. It should be labelled as the abstract with the word "Abstract" in bold face and should be typed single spaced. Total typing area on the first page should be 17×22 cm. Typing area for other pages should be 17×24 cm. Each manuscript should be accompanied by a Graphical Abstract, which should contain the title in bold face single spaced, authors names and addresses. It should summarise concisely the contents of the communications in pictorial form designed to capture the attention of a wide readership and to facilitate compilation of database. Chemical Structures designed to illustrate the theme of research work presented should be included. It should be prepared on a separate sheet of paper sized 19×7 cm. An example of graphical presentation is shown as :

### Graphical Abstract

|       | Leave blank | 1 cm |
|-------|-------------|------|
| Space | 10 cm       |      |
|       |             |      |

Abstract

2.4 Text : Text should be divided into sections like Introduction, Experimental, including spectra screening, instruments specifications, Results, Discussions, Conclusions, Acknowledgements (if applicable) and References. However, the experimental section should be excluded in preliminary Communications as far as possible. Between the end of one section and the beginning of another, there should be a gap of three single spaces. Text should be typed in one and a half spacing throughout.

2.5 **References**: These should be numbered consecutively throughout the text as they appear and should be superscripted. All compound number in text should not be bold e.g., phenothiazines 7 can be prepared.... Abbreviations for journals should be those used in Chemical Abstracts. Abbreviations for other terms should also be taken from Chemical Abstracts /ACS journal. Each reference should be typed single spaced. However, there should be one empty line between two consecutive references. Some examples for journal and books references are given:

- 1 R.R. Gupta, V. Saraswat, A. Gupta, M. Jain and V. Gupta, J. Heterocycl. Chem. 29, 1703 (1992)
- 2 R.R. Gupta, Diamagnetic Susceptibility, Springer Verlag, Berlin, 1986
- 3 R.R. Gupta (Ed.), Physical Methods in Heterocyclic Chemistry, John Wiley, New York, 1984
- 4 R.R. Gupta and M. Kumar, Synthesis, Properties and Reactions of Phenothiazines, in R.R. Gupta (Ed.), Phenothiazines and 1.4-Benzothiazines-Chemical and Biomedical Aspects, Elsevier, Amsterdam, 1988, pp. 1

### 2.6 Illustrations

Both line drawings and photographs should be used sparingly. All illustrations must be numbered in sequence using arabic numbers, and each illustration must be referred to in the text. Each illustration must be provided with a caption which is complete enough for the figure to be appreciated without referring to the text. Line drawings must be submitted as the perfectly drawn original or as a glossy photograph print. Photocopies, Multiliths, Verifax or Xerox copies are not acceptable substitutes. If you are using desktop publishing software with high quality graphics capability, which is recommended, it is desirable that the graphics be sized and printed along with the text. A laser printer should be used. Photographs must be supplied as glossy prints in which any lettering must be part of the photographs. No lettering should be applied to the surface of the photograph. Micrographs and similar material in which linear dimensions are important should have a scale of length.

#### 2.7 Tables

Tabular presentation of data is an economic way of condensing many items. Refer to tables by using Latin numerals in text and to head the table itself. Provide each table with a caption which will allow it to be read without reference to the text. The table caption should be typed to the width of the table itself. Exceptionally large tables may be placed landscape on the page with the top of table at the left-hand margin.

### 2.8 Page Numbers

When your typescript is complete and in its final form, number each page sequentially from 1, using a light blue pencil, in the top right-hand corner of each sheet. Final page numbers will be inserted by the editor or the publisher.

#### 2.9 Layout

The typing area should be  $17 \times 24$  cm for all pages except the first. On the first page typing should start 2 cm below top of the typing area, e.g., its typing area should be  $17 \times 22$  cm. After abstract text should be typed in one and a half spacing throughout on all pages. Photographic reduction will be by 25%.

### 2.10 Displayed Equations and Formulas

Leave a blank line above and below all display. Break equations, where possible, only at an equals sign (=) or equivalent (>,<>,<). Do not repeat equations sign at the end of one line and the beginning of the next, but carry it over to the beginning of the following line.

### 3 Cost of Reprints

Orders for purchase of reprints should be placed to the publisher after receiving the acceptance of paper. Cost of reprints is given in the following table.

|  |        | Number of Pages |       |        |         |                                 |  |
|--|--------|-----------------|-------|--------|---------|---------------------------------|--|
| Number of Reprints   | 1-2pp  | 3-4pp           | 5-8pp | 9-12pp | 13-16pp | Each additional<br>unit (1-4pp) |  |
| 100  | \$83   | 122             | 159   | 253    | 341     | 111                             |  |
| 200  | \$ 109 | 150             | 259   | 380    | 516     | 136                             |  |
| 300  | \$ 128 | 245             | 380   | 569    | 759     | 172                             |  |
| Orders for quantities over 300 copies are subject to special quotations. |        |                 |       |        |         |                                 |  |

# Index of Vol. 5 (Issue 1-6), 1999 Heterocyclic Communications, Vol. 5, No. 1, 1999

### Vol. 5, Issue 1 (1999)

|  | 1  | Contributors to this Issue.  |
|--|----|--|
|  | 2  | Graphical Abstracts.   |
| L. Strekowski, M.A. Ismail<br>and H.H. Zoorob  | 9  | A general method for acylation of 1,3-dialkyl-substituted barbituric and 2-thiobarbituric acids.   |
| A.K. Singh and J.W. Lown   | n  | Synthesis of Hoechst 33258 analogues designed to target human tumor helicases.   |
| K. Matsumoto, A. Shigeta, A. Okada,<br>T. Kakara and M. Toda   | 19 | Binding properties of some new mono-, bis-, and tris-crown ethers for silver ions.   |
| P. Sonnet, H. Miel, J. Guiilon,<br>P. Dallemagne and S. Rault  | 25 | Synthesis of new phenylpyrrolizinones derivatives, via a Mannich reaction.   |
| N. Kizilcan, A. Akar, N. Talinli and<br>S. Yaslak  | 27 | Phosphorous esters of 2,13-dihydro-7a,14c-dihydronaphtho[1',2':4,5]furo-<br>[3,2-d]furan.  |
| T. Xu, J. Su, K. Chen and H. Tian  | 31 | Synthesis of bis- and tris-1,8-naphthalimides bridged by N-N bond.   |
| K. Wurst and M.R. Buchmeiser   | 37 | Chiral chelating systems: Unusual formation and X-ray-structure of RAC-<br>3A(R),4(S),5,9B(S)-tetrahydro-4-(pyrid-2-yl)-3H-cyclopenta[C]quinoline. |
| T. Eszenyi, T. Timar, P. Sebók and<br>J. Jekő  | 45 | On the synthesis of benzodipyrans.   |
| M. Vlassa, C. Afloroaei, N. Dulamita,<br>P. Brouant and J. Barbe   | 51 | Application of phase transfer catalysis in the acridine series VII (1). Synthesis of 9-cyanoacridine derivatives.                                  |
| Y. Ikemi, A. Okada, H. Katsura,<br>S. Otani and K. Matsumoto   | 53 | Inverse electron demand Diels-Alder reactions of 3,6-diaryl-1,2,4,5-tetrazines with cyclooctyne.   |
| E. Abele, R. Abele, L Sleiksa and<br>E. Lukevics   | 59 | A simple phase transfer catalyzed synthesis of benzyl and hetarylmethyl silacycloalkyl ethers from acetates.                                       |
| A.R. Subramanian, S.A.V. Raghavan,<br>R.J. Babu, C.N.V.H.B. Gupta,<br>N. Sridhar, A. Veeranjaneyulu,<br>P. Parimoo and P. Srinivas | 63 | Synthesis of new piperazinyl indolyl propanones and preliminary CNS pharmacological evaluation in mice.  |
| V.F. Traven, A.Y. Tolmachev,<br>N.Y. Podhaluzina, D.S. Kanevskii<br>and N. P. Solovieva  | 69 | New ways of lactone ring shortening and cyclopropanation in coumarin derivatives.  |
| Y.O. El-Khoshnieh  | 77 | Reactions of 1,2,4-triazine azides with $\alpha$ -keto and $\alpha$ -ester phosphorus ylides.<br>Synthesis of some new 1-triazino-1,2,3-triazoles. |
| Ö. Sezer, K. Dabak, O.Anaç and A.Akar  | 83 | Synthesis of triazolylbenzoisoxazole derivatives.  |
| M. Balogh, A. Gerstmans and<br>L Hermecz   | 89 | Solid acid catalyzed reaction of aminals with methyl 3-aminocrotonate.   |
| P.S. Verma, R. Gupta, N. Sharma,<br>M.Y. Hamadi, V. Gupta and<br>R.R. Gupta  | 93 | Single step synthesis of 3-methyl-5/7-substituted 4H-1,4-benzothiazines.   |
|  | 97 | Notes for the preparation of manuscript.   |

## Heterocyclic Communications, Vol. 5, No. 2, 1999

## Vol. 5, Issue 2 (1999)

|  | 99  | Contributors to this Issue.  |
|--|-----|--|
|  | 100 | Graphical Abstracts.   |
| L. Strekowski, M.A. Ismail<br>and H.H. Zoorob  | 107 | Novel synthesis transformation of 5-(@-chloroalkanoyl)-1,3-dimethyl-<br>barbituric acids.  |
| F.A. Chowdhury, H. Nishino and<br>K. Kurusawa  | 111 | Manganese(III)-based oxidative radical cyclization of terminal alkadienes with $N,N'$ -bis(3-oxobutanoyl)- $\alpha,\omega$ -alkanediamines. Formation of macro-diamides.             |
| P. Norris  | 113 | Chiral tetrahydrofuran synthesis from D-ribose diphenyl dithioacetal.  |
| J. Quiroga, B. Insuasty, A. Hormaza,<br>P. Cabildo, R.M. Claramunt and<br>J. Elguero | 115 | Synthesis, molecular structure and tautomerism of 1(2)H-dihydropyrazolo-<br>[3,4-b]pyridin-6-ones.   |
| R. Demadrille, C. Moustrou, A. Samat<br>and R. Guglielmetti                          | 123 | Palladium-catalyzed amination of photochromic triflate-substituted 3 <i>H</i> -naphtho[1,2-b]pyrans.   |
| A. Perjessy, P. Meyer, WD. Rudorf,<br>D. Loos, A. Kolbe and L Schaller               | 127 | Transmission of substituent effect in ethyl 2-aroyl- and ethyl 2-aryl-<br>carbamoyl-4,5-dimethyl-1,2,3,6-tetrahydropyridazine-1-carboxylates :<br>An infrared and theoretical study. |
| M. Noguchi, S. Nishimura, H. Fujii and<br>A. Kakehi                                  | 133 | A simple oxime-nitrone isomerization and intramolecular cycloaddition reaction of 2-(alk-2-enyl)oxy and 2-[N-(alk-2-enyl)benzylamino]-cyclohexanone oximes.                          |
| C. Foces-Foces, A.L. Llamas-Saiz and J. Elguero                                      | 137 | The structure of <i>N</i> -acetylazoles (azolines) : A semiempirical (AMI) computational study.  |
| I.A. Silberg, L Silaghi-Dumitrescu,<br>C. Cristea, P. Tordo and D. Gigmes            | 147 | Molecular orbital calculations and physical properties of 1,4-benzothiazino-<br>[2,3-b]phenothiazine and its substituted derivatives.  |
| A. Levai   | 151 | Fused heterocycles 9. synthesis of tricyclic pyrazolines by the reaction of $E$ -3-arylideneflavanones with phenylhydrazine.   |
| J. Styskala and J. Slouka  | 157 | $\label{eq:cyclication} Cyclication reactions of hydrazones XXV: Synthesis and study of reactivity of some derivatives of [1]benzothieno[2,3-e]1,2,4-triazine.$                      |
| T. Okano, H. Yamada and S. Eguchi  | 163 | Addition-elimination reaction of highly electrophilic difluoroolefin, 5-<br>difluoromethylene-3-pyrrolin-2-ones.   |
| M.A. Raslan, M.A. Khalil, S.M. Sayed<br>and A.M. Farag                               | 167 | Facile synthesis of novel polysubstituted thiophene and benzo [g] thiazo-[3,2-b]pyridine.  |
| Y. Dürüst, H.A. Döndas and<br>N. Ozkoru  | 173 | Synthesis of some bicyclo and spiro isoxazolines.  |
| V.S. Rao, S.V.S.A.K. Gupta and<br>B.S. Reddy   | 179 | Ortho amino cyano aromatic compounds as precursors for the synthesis of some novel heterocyclic compounds.   |
| V.F. Traven, A.Y. Tolmachev,<br>N.A. Podhaluzina and D.S. Kanevskii                  | 183 | Cholesteryl esters of furocoumarin and coumarin carboxylic acids.  |
| K. Li, LN. He, XH. Qing, YP. Luo<br>and MW. Ding                                     | 189 | A facile synthesis of 1-alkyl-1,3,2-diazaphospholidin-4-thione-2-sulfide via Lawesson's reagent.   |
|  |     |  |

193 Notes for the preparation of manuscript.

# Heterocyclic Communications, Vol. 5, No. 3, 1999

### Vol. 5, Issue 3 (1999)

|  | 195 | Contributors to this Issue.   |
|--|-----|---|
|  | 196 | Graphical Abstracts.  |
| Z. Wang, R. Neidlein and C. Krieger  | 203 | Reactions of 3,3-diamino-2-cyanoacrylates with substituted ureas and dichloromethylenedialkyliminium chlorides.   |
| E. Fourmaintraux, P. Depreux and<br>I. Lesieur   | 213 | Synthesis of new phthalazinyl compounds as potential inhibitors of aldose reductase and sorbitol dehydrogenase.   |
| B.F. Bonini, G. Mazzanti and P. Zani   | 217 | Chemistry of silyl thioketones : Studies concerning the regiochemistry of cycloaddition with substituted 1,3-dienes.  |
| A.P. Aguiar and W.B. Kover   | 227 | Chemo- and regioselective synthesis of new phosphorated 4,5-dihydro-<br>isoxazoles from different monoterpenes.   |
| P. Bilek and J. Slouka   | 231 | Cyclocondensation reactions of heterocyclic carbonyl compounds VI:<br>Cyclocondensation of the isomeric 1-(2-aminophenyl)-6-azauracil-5-<br>carboxylic acid N-methylderivatives.            |
| S. Alibert-Franco, C. Santelli-Rouvier,<br>J. Barbe, B. Pradines, C. Houdoin and<br>D. Parzy | 235 | 9.10-(3',4'-Pyrrolidino)-9,10-dihydroanthracene and structurally related compounds as synergistic antimalarial drugs.   |
| M.V. Vasylyev, Y.V. Bilokin,<br>S.M. Branytska S.M. Kovalenko<br>and V.P. Chernykh           | 241 | A facile method for synthesis of heterocycles containing tetrahydrobenzo-<br>[4.5]thieno[2,3-d]pyrimidine and coumarin moieties.  |
| A.H. Atta  | 243 | Reactions of 1-(2-benzothiazoIyl)-4-(dicyanomethylene)-3-methyl-2-<br>pyrazolin-5-one towards amines.   |
| C. Afloroaei, M. Vlassa, A. Becze,<br>P. Brouant and J. Barbe                                | 249 | Microwave action on 2-(arylamino)-nicotinic acid derivatives.   |
| F.D. Irimie, C. Afloroaei, M. Tosa and<br>C. Paizs   | 253 | Bioreduction with bakers' yeast of $\pi$ -deficient heterocyclic aldehydes.   |
| L Cabanal-Duvillard and JF. Berrien  | 257 | A simple access to key pyridine building blocks.  |
| R. Gupta, V. Gupta, N. Sharma,<br>M.Y. Hamadi, P.S. Verma and<br>R.R. Gupta                  | 263 | Synthesis of 1-methyl-3,7-disubstituted phenothiazines.   |
| Z.A. Hozien, A.A.O. Mohamed  | 269 | Synthesis of spiroheterocycles related to spiro[fluren-9,2'(1',3'-<br>oxathiolan)]-5'-one and spiro[anthracen-9(10)H,2'-(1',3'-oxathiolan]-<br>5'-one.                                      |
| S. Deprets and G. Kirsch   | 275 | Synthesis of new heterocyclic analogues of isocoumestane.   |
| LE. Bylov, Y.V. Bilokin and<br>S.M. Kovalenko  | 281 | Specific features of reactions of 2-aminobenzotrifluoride and anthranilates with ethyl cyanoacetate-Expeditious routes to 3-substituted 4-amino- and 4-hydroxyquinolin-2(1 <i>H</i> )-ones. |
| B.B. Reddy, A. Balaiah, V. Padmavathi<br>and A. Padmaja                                      | 285 | Selena and thiadiazole fused polycyclic polythia compounds-Part-III.  |
|  | 291 | Notes for the preparation of manuscript.  |

## Heterocyclic Communications, Vol. 5, No. 4, 1999

### Vol. 5, Issue 4 (1999)

|  | 293 | Contributors to this Issue.   |
|--|-----|---|
|  | 294 | Graphical Abstracts.  |
| A. Kumar, C.E. Stephens and<br>D.W. Boykin   | 301 | Palladium catalyzed cross-coupling reactions for the synthesis of 2.5-disubstitutedfurans.  |
| M. Welch and R.S. Phillips   | 305 | Improved synthesis of $[3,2-b]$ - and $[3,2-b]$ - fused selenolo- and thicnopyrroles, and of furo $[3,2-b]$ pyrrole.  |
| L.H. Klemm, T.J.R. Weakley and<br>M. Yoon  | 311 | X-Ray crystallographic studies of four monosubstituted thienopyridines.<br>Comparison of experimental data with calculated or measured values for<br>the parent compounds.  |
| K. lto, T. Ohta, Y. Ohba and<br>T. Sone  | 319 | Syntheses of chiral tetrahomodiazacalix[4]arenes incorporating amino acid residues. Chiral induction of cvclophane moiety by the chirality of amino acid residue.   |
| T. Kurz and D. Geffken   | 325 | Cyclization of thiocyanato malonates with hydroxylamines to 5-carboxy-<br>alkyl-4-oxo-thiazoli(di)nes.  |
| R. Barret, A. Belaissaoui, Z.M. Du,<br>T. Mulamba, J.Y. Laronze and J. Levy  | 329 | Oxidation of indolo-quinoline structures.   |
| R. Miranda, R. Osnaya, I. Oviedo,<br>A. Ciprian, T. Cruz and M. Martinez   | 331 | Facile route to amino phthalimides and isothiocyanate analogues; Novel reagents to prepare fluorescent protein congugates.  |
| E. Yanase and Si. Nakatsuka  | 339 | Synthesis of monomethyl and dimethyl derivatives of epicatechin gallate (ECg) and their photo-sensitivity.  |
| S. Danoun, G. Baziard-Mouysset,<br>JL. Stigliani, M. Ane-Margail,<br>M. Payard, JM. Leger, X. Canron,<br>H. Vial, P.M. Loiseau and C. Bories | 343 | Synthesis and photozoocidal activity of new 1.4-naphthoquinones.  |
| J. Styskala and J. Slouka  | 349 | Cyclization reactions of hydrazones XXVI: Synthesis of aryl-2,3-dihydro-<br>naphto[1'.2':4,5]furo{2,3-e]1,2,4-triazin-3-ones and their use for the<br>preparation of 1-aryl-5-(2-hydroxy-1-naphtyl)-6-azauracils. |
| GF. Yang and HZ. Yang  | 355 | Synthesis and herbicidal activity of novel $\alpha$ -(1,2,4-triazolo[1,5-a]-<br>pyrimidine-2-oxyl)phosphonate derivatives.  |
| A. Lévai   | 359 | Oxazepines and thiazepines 38, Synthesis of 2,4-diaryl-2,3-dihydro-1,5-<br>benzothiazepines by the reaction of 2-hydroxychalcones with 2-amino-<br>thiophenol.  |
| H. Wamhoff, J. Muhr, M. Horn,<br>P. Sohár and A. Csámpai   | 365 | Subsequent reactions of 7-ethoxypyrimido[4,5-d]pyrimidines: Nucleophilic exchange, pyrimido[4,5:4',5']pyrimido[1,2-a]quinazoline, benzo[f]-pyrimido[4,5:4',5']pyrimido[1,2-d][1,3,4]triazepine.                   |
| D. Graham and G. McAnally  | 377 | Synthesis of aminobenzotriazoles.   |
| V.F. Traven, LL Saharuk,<br>D.V. Kravtchenko and LG. Makarov   | 379 | The first pyrrolofurocoumarins.   |
| S.B. Desai, P.B. Desai and K.R. Desai  | 385 | Synthesis of new heterocyclic thiazolidinone and azetidinone compounds and their anticancer activity.   |
|  | 391 | Notes for the preparation of manuscript.  |

## Heterocyclic Communications, Vol. 5, No. 5, 1999

## Vol. 5, Issue 5 (1999)

|  | 393 | Contributors to this issue.  |
|--|-----|--|
|  | 394 | Graphical Abstracts.   |
| D.J. Koza and W.B. Euler   | 399 | Convenient syntheses of 2,2'-biindole.   |
| L. Lamarque, A. Meou and P. Brun   | 403 | Manganese (III)-promoted addition of monomethyl malonate on dihydropyran in the presence of molecular oxygen.  |
| L.M.F. Santos, A.J. Alves, A.R. de Faria,<br>D.J. Brondani, A.C.C. Freitas,<br>J.G. de Lima and A.C.L. Leite | 407 | A new series of 1-phenylpyrazole peptidomimetics.  |
| A. Gaz, F. Ammadi, S. Boukhris,<br>A. Souizi and G. Coudert  | 413 | One-pot synthesis of 1,4-benzoxazin-2-ones and 1,4-benzoxazines from epoxides.   |
| A. Levai   | 419 | An efficient procedure for the preparation of 4-thioflavones by the reaction of flavones with Lawesson's reagent.  |
| M.A. Metwally and M. Abdel-Mogib   | 423 | The use of thiochroman-4-one in the synthesis of some benzothiopyrano-<br>pyrimidines and bis-thiochrom-2-ene-4-one of pharmaceutical<br>interest.   |
| M. Al-Talib, S. Bataineh and<br>H. Tashtoush   | 429 | Reaction of 1,3- and 1,4-bis(1,3,4-oxadiazole-5(3H)-thione-2-yl) benzenes with aryl aldehydes.   |
| N.R. Mohamed   | 433 | Synthesis of $\alpha$ -thiocarbamoyl phosphoranes and their utility for formation of some pyrazole and thiophene derivatives.  |
| A. Levai, C. Nemes and T. Patonay  | 441 | Synthesis of new ( $Z$ )-3-arylidenechromanones by the photoisomerization of ( $E$ )-3-aryledenchromanones.  |
| M.A. Metwally, M. Hammouda,<br>S.S. El-Morsy and M.M. El-Hussini   | 445 | The use of 4-hydroxymethyl-1-phenyl-2-pyrazolin-5-one in the synthesis of new heterocycles of phamaceutical interest.  |
| V. Padmavathi, K. Sharmila,<br>A. Padmaja and D.B. Reddy   | 451 | An efficient synthesis of 6,8-diaryl carbazoles via Fischer indole cyclizations.   |
| C.A. Câmara, E.T. Silva, E.J. Barreiro<br>and C.A.M. Fraga   | 457 | Synthesis of new isosteric heterocyclic derivatives: Pyrazolo[3,4-b]thieno-<br>[3,2-e]pyridine, pyrazolo[3,4-b]pyrrolo[3,2-e]pyridine and furo[2,3-b]-<br>pyrazolo[4,3-e]pyridine.                           |
| M.A. Khalil, M.A. Raslan, K.M. Dawood<br>and S.M. Sayed  | 463 | Synthesis of 1,2,4-triazole,1,2,4-triazolo[3,4-b][1,3,4]thiadiazole and 1,2,4-triazolo[3,4-b][1,3,4]thiadiazine derivatives of 3-[5-(benzothiazol-2-yl)thieno[2,3-d]pyrimidine-4-one] acetic acid hydrazide. |
| H.A.:Hamid, A. Mousaad, E.S. Ramadan<br>and B.S.H.E. Ashry   | 473 | Synthesis of fused and nonfused heterocycles from 5- and 8-substituted 3-<br>hydrazino-1,2,4-triazino[5,6-b] indole.   |
| C. Kavitha and K.J.R. Prasad   | 481 | Tetracyclic compounds from indolo[2,3-b]cycloheptan-1-ones. Synthesis<br>Of isoxazolo[4'3':6,7]cyclohepta[b]indoles.   |
|  | 489 | Notes for the preparation of manuscript.   |

## Heterocyclic Communications, Vol. 5, No. 6, 1999

### Vol. 5, Issue 6 (1999)

|   | 491 | Contributors to this issue.   |
|---|-----|---|
|   | 492 | Graphical Abstracts.  |
| G. Jia, H. lida and J.W. Lown   | 497 | Design and synthesis of 1,2,9.9a-tetrahydrocyclopropa[c]benz[e]indole-<br>4-one (CBI) dimers.   |
| J. Garner and A. McCluskey  | 503 | Regiocontrolled amination of dichloropyrimidines in $LiClO_4 - Et_2O$ solutions.  |
| H. Iida, Y. Misumi, K. Matsumoto and<br>J.W. Lown                               | 509 | $S_NAr$ Reactions of methyl and ethyl 2-nitro-5-fluorobenzoates in the synthesis of pyrro[2,1-c][1,4]benzodiazepine precursors.   |
| E. Gavrielatos, J. Markopoulos and<br>O. Igglessi-Markopoulou                   | 515 | Synthesis and nmr spectroscopic studies of novel N-acetyl-3-aminoalkyl tetramic acids.  |
| R.F. Vieira, D.J. Brondani, A.R. Faria,<br>R.M. Srivastava and A.C.L. Leite     | 521 | Synthesis of new 1,2,4-oxadiazoles-derived dipeptidomimetics, a potential class of antiinflammatory drugs.  |
| L. Strekowski and M.A. Ismail   | 525 | Sodium borohydride mediated benzylation of 1,3-dimethylbarbituric acid.   |
| D.J. Aitken, L. Besson,<br>K. Partogyan-Halim and HP. Husson                    | 529 | Stereochemical effects in the efficient cyclisation of N-(1-cyano-3-methoxy-<br>but-3-enyl)-4-phenyloxazolidine.  |
| S.T. Selvi and P.S. Mohan   | 533 | Synthesis of furo- thieno- and pyrrolo- [3,2-a]acridones.   |
| S.A. EI-Kafrawy and E.B. Pedersen   | 539 | Multiple lid stabilization of the DNA three-way junction. Insertion of $N^3$ -(1-pyrenylmethyl)thymidine.   |
| L Cristea, M.M. Popovici, M.T. Mendel,<br>L Silaghi-Dumitrescu and E. Kozma     | 543 | 1-(Acridin-9'-yl)-pyrazolin-3 and 5-ones. A new class of heterocycles with potential biological activity.   |
| R. Gawinecki, E. Kolehmainen,<br>B. Ośmialowski, P. Palkovič and<br>M. Nissinen | 549 | Synthesis and nmr spectra of 2-methyl-2-quinolin-2-yl-propiophenones.   |
| A.M.E. Massry   | 555 | Synthesis and antimicrobial activity of condensed and uncondensed quinoxalines.   |
| R. Chandra and N.N. Ghosh   | 565 | A. simple and economical method for the synthesis of intermediates of cefazolin.  |
| A. Krauze, R. Vitolina, V. Garalene,<br>HJ. Jänsch and G. Duburs.               | 569 | Synthesis of 4-substituted pyridin-2(1H)-ones, pyridine-2(1H)-thiones, related derivatives as analogues of cardiotonic drug of milrinone.                               |
| A.L Khodair, M.M.A. Abbasi,<br>ES.L Ibrahim, A.H. Soliman and<br>ES.H. El-Ashry | 577 | Synthesis of substituted quinolines and heterocyclo[x,y-c]quinolines<br>by the nucleophilic substitution and rearrangements of 4-chloro-2-methyl-<br>3-nitroquinolines. |
|   | 585 | Notes for the preparation of manuscript.  |
|   | 587 | Index of Vol. 5, 1999   |