### ARKIVOC Volume 2009 Part (xiii): General Papers

# 1. Water mediated expeditious and highly selective synthesis of 2-aryl-1-arylmethyl-1*H*-1,3-benzimidazoles by Dowex 50W : fluorescence properties of some representative compounds (09-4316QP)

Chhanda Mukhopadhyay, Arup Datta, Ray J Butcher, Bijan Kumar Paul, Nikhil Guchhait and Raghunath Singha

Full Text: PDF (667K)

pp. 1 - 22

received Aug 14 2009; accepted Nov 9 2009; published Nov 22 2009;

### **2.** Structure of the intermediate in the synthesis of 6-methyl-2-oxo-1,2-dihydropyridine-3-carbonitrile (09-4062FP)

Nikolay Yu. Gorobets, Yuriy V. Sedash, Svetlana V. Shishkina, Oleg V. Shishkin, Sergey A. Yermolayev and Sergey M. Desenko

Full Text: PDF (298K)

Supplementary Material: PDF (2,079K)

pp. 23 - 30

received May 12 2009; accepted Nov 2 2009; published Nov 25 2009;

# 3. Synthesis and reactions of 3-hydrazino-2,3,4,7,8,9-hexahydro-1*H*-benzo[6',7']cyclohepta[1',2':4,5]pyrido[2,3-*d*]pyrimidin-1-one (09-4143AP)

Mohamed S. Mohamed Ahmed and Thoraya A. Farghaly

Full Text: PDF (255K)

pp. 31 - 41

received Jun 7 2009; accepted Nov 7 2009; published Nov 25 2009;

4. The investigation of NMR spectra of dihydropyridones derived from Curcumin (09-4130QP)

Bahjat A. Saeed, Kawkab Y. Saour and Rita S. Elias

Full Text: PDF (394K)

pp. 42 - 54

received Jun 5 2009; accepted Nov 6 2009; published Dec 1 2009;

# 5. Synthesis of new 8-([1,3]benzothiazol-2-yl)-7-methoxyflavones and 8-(1*H*-benzimidazol-2-yl)-7-methoxyflavones (09-4276CP)

S. Satyanarayana Reddy, P. Sreenivas, Y. Jayaprakash Rao and G. L. D. Krupadanam

Full Text: PDF (146K) pp. 55 - 65

$$R^{3}$$
 $R^{2}$ 
 $R^{3}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{4$ 

received Jul 27 2009; accepted Nov 7 2009; published Dec 1 2009;

# 6. Carbamothioates in the synthesis of diaroyl sulfides; selectivity of diaroyl sulfides and their addition to acetylenic and ethylenic deficient compounds (09-4321BP)

Ashraf A. Aly, Alan B. Brown, Alaa A. Hasaan, Kamal M. El-Shaieb and Tarek M. I. Bedair

Full Text: PDF (213K)

pp. 66 - 77

S-sulfonated additive compounds

received Aug 16 2009; accepted Nov 14 2009; published Dec 4 2009;

# 7. Solid-phase cleavage by a thermal retro-Diels-Alder reaction: preparation of a small $\beta$ -substituted $\alpha,\beta$ -ethylenic aldehydes library (09-4455BP)

Sébastien Albert, Luis Blanco and Sandrine Deloisy

Full Text: PDF (262K)

pp. 78 - 96

R = H, 
$$O$$

I

1- (EtO)<sub>2</sub>HC — CHO

2- NuH (excess), base
3-  $\Delta$ , retro-Diels-Alder

received Sep 17 2009; accepted Nov 22 2009; published Dec 4 2009;

8. Synthesis and antimicrobial activity of spiro[chromeno[4,3-d][1,2,3]thiadiazole-4,1Â'-cyclohexane, spiro[chromeno[4,3-d][1,2,3]selenadiazole-4,1Â'-cyclohexane and spiro [chroman-2,1Â'-cyclohexan]-4-one-5-spiro-4-acetyl-2-(acetylamino)- $\Delta$ 2-1,3,4-thiadiazolines compounds (09-4384HP)

Mangesh J. Pawar, Arvind B. Burungale and Bhausaheb K. Karale

Full Text: PDF (302K)

pp. 97 - 107

$$R_2$$
 $R_3$ 
 $R_4$ 
 $R_5$ 
 $R_7$ 
 $R_8$ 
 $R_8$ 
 $R_8$ 
 $R_8$ 
 $R_9$ 
 $R_9$ 

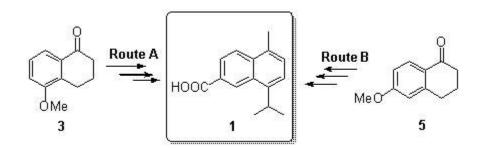
received Aug 31 2009; accepted Nov 9 2009; published Dec 6 2009;

#### 9. Total synthesis of cadalen-15-oic acid (09-4373NP)

Po Shan Poon and Ajoy K Banerjee

Full Text: PDF (178K)

pp. 108 - 115



received Aug 28 2009; accepted Nov 14 2009; published Dec 6 2009;

#### **10. Synthesis of biomimetic polyamines** (09-4224KP)

Vadim V. Annenkov, Stanislav N. Zelinskiy, Elena N. Danilovtseva and Carole C. Perry

Full Text: PDF (306K)

pp. 116 - 130

received Jul 10 2009; accepted Nov 18 2009; published Dec 6 2009;

# 11. Synthesis and anti-bacterial activities of novel 5-isonicotinoyl-1,2,3,4-tetrahydropyrimidines and bis-(5-isonicotinoyl-1,2,3,4-tetrahydropyrimidines) (09-4185MP)

J.N. Vishwakarma, M.C. Dutta, K. Chanda, Bhaskar Das, M.A. Laskar and R.L. Nongkhlaw Full Text: PDF (249K)

pp. 131 - 141

received Jun 21 2009; accepted Nov 25 2009; published Dec 13 2009;

# 12. Microwave-assisted click chemistry: synthesis of mono and bis-1,2,3-triazole acyclonucleoside analogues of ACV *via* copper(I)-catalyzed cycloaddition (09-4115AP)

J. Krim, B. Sillahi, M. Taourirte, E.M. Rakib and J.W. Engels

Full Text: PDF (270K)

pp. 142 - 152

received Jun 2 2009; accepted Nov 21 2009; published Dec 14 2009;

### **13.** Microwave-assisted, one-pot multicomponent synthesis of highly substituted pyridines of medicinal utility using KF/alumina (09-4341AP)

Krishna Nand Singh and Satish Kumar Singh

Full Text: PDF (170K)

pp. 153 - 160

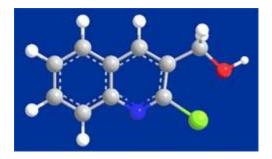
received Aug 21 2009; accepted Nov 21 2009; published Dec 20 2009;

#### 14. Synthesis, antioxidant, hemolytic and cytotoxic activity of AB ring cores of mappicine (09-4038AP)

Selvaraj Mohana Roopan and Fazlur Rahman Nawaz Khan

Full Text: PDF (194K)

pp. 161 - 169



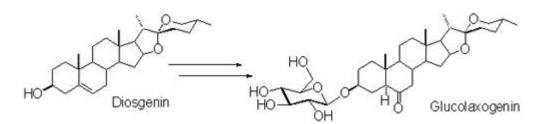
received Apr 28 2009; accepted Nov 21 2009; published Dec 20 2009;

# **15.** Formation of the steroidal $3\beta$ -hydroxy-6-oxo-moiety. Synthesis and cytotoxicity of glucolaxogenin (09-4326NP)

Maria Antonieta Fernandez-Herrera, Jesus Sandoval-Ramirez, Hugo Lopez-Muñoz and Luis Sanchez-Sanchez

Full Text: PDF (1,568K)

pp. 170 - 184



received Aug 17 2009; accepted Nov 14 2009; published Dec 22 2009;

#### 16. Synthesis of 2-aryl-1,2-dihydronaphtho[1,2-f][1,4]oxazepin-3(4H)-ones. Part I (09-3707AP)

Sevim Bilgiç, Orhan Bilgiç, M.Özlem Bilgiç, Murat Gündüz and Nimet Karakoç

Full Text: PDF (183K)

pp. 185 - 192

received Dec 15 2008; accepted Nov 21 2009; published Jan 15 2010;

### 17. Synthesis of *N*-substituted-3,4,5,6-tetrachlorophthalimide using trichloroacetimidate C-C bond formation method (09-4431AP)

Ibrahim A. I. Ali and Walid Fathalla Mohamed

Full Text: PDF (186K)

pp. 193 - 199

received Sep 11 2009; accepted Dec 7 2009; published Jan 15 2010;

18. HIO₃/KI: A new combination reagent for iodination of aromatic amines and trimethylsilylation of alcohols and phenols through in situ generation of iodine under mild conditions (09-4358LP)

Mohammad Ali Zolfigol, Ardeshir Khazaei, Eskandar Kolvari, Nadiya Koukabi, Hamid Soltani, Maryam Behjunia and Vahid Khakyzadeh

Full Text: PDF (194K)

pp. 200 - 210

received Aug 26 2009; accepted Dec 7 2009; published Jan 18 2010;

# 19. A convenient method for the reductive degradation of mono-, di-, and tribromodiphenyl ethers, tetrabromo- and tetrachlorobisphenol A with Raney Ni-Al alloy (09-4580UP)

Guo-Bin Liu, Hong-Yun Zhao, Lu Dai and Thies Thiemann

Full Text: PDF (257K)

pp. 211 - 226

received Oct 13 2009; accepted Dec 6 2009; published Jan 18 2010;

# 20. Linear free energy relationships of the <sup>13</sup>C NMR chemical shifts in 5-(3- and 4-substituted arylazo)-4,6-dimethyl-3-cyano-2-pyridones (09-4237QP)

Nataša V. Valentić, ÂŽeljko J. Vitnik, Dušan ÂŽ. Mijin, Gordana S. Ušćumlić, Nina Todorović and Ivan O. Juranić

Full Text: PDF (364K)

pp. 227 - 240

 $X = 4 - 0 \\ CH_{31} \\ 3 - 0 \\ CH_{32} \\ 4 - CH_{33} \\ 3 - CH_{33} \\ 4 - C_{2}H_{61} \\ 3 - C_{2}H_{52} \\ H_{11} \\ 4 - CI_{1} \\ 3 - CI_{1} \\ 4 - RI_{1} \\ 3 - CI_{1} \\ 4 - RI_{1} \\ 3 - CI_{1} \\ 4 - RI_{2} \\ 4 - RI_{2} \\ 4 - RI_{2} \\ 4 - RI_{2} \\ 4 - RI_{3} \\ 4 - RI$ 

received Jul 13 2009; accepted Dec 3 2009; published Jan 18 2010;

# **21.** Facile synthesis of various 2-substituted-4-(2-pyridyl) benzopyran analogues as target potassium channel opener (09-4309UP)

Anil Kumar Tripathi, Debaraj Mukherjee, Surrinder Koul and Subhash C. Taneja

Full Text: PDF (153K)

pp. 241 - 251

HO

OH

$$R^3$$
 $R^1$ 
 $R^3$ 
 $R^1$ 
 $R^2$ 
 $R^3$ 
 $R^1$ 
 $R^2$ 
 $R^3$ 
 $R^2$ 

received Aug 11 2009; accepted Dec 3 2009; published Jan 18 2010;

### **22.** A rapid access to the core skeleton of atypic tricyclic polyprenylated acylphloroglucinols (09-4415NP)

Bernard Delpech, Blanca Tolon and Christian Marazano

Full Text: PDF (140K)

pp. 252 - 264

received Sep 8 2009; accepted Dec 15 2009; published Jan 18 2010;

# 23. Comparative analysis of enantioselective separation of novel PPAR agonists by HPLC on cellulose-and amylose-based chiral stationary phases (09-4164AP)

Luca Piemontese, Salvatore Faliti, Giuseppe Carbonara, Giuseppe Fracchiolla, Paolo Tortorella and Fulvio Loiodice

Full Text: PDF (327K)

pp. 265 - 280

A,B,C,D,E,F= alkyl,aryl,halogen R= H, CH<sub>3</sub>

received Jun 17 2009; accepted Jan 4 2010; published Jan 22 2010;

#### 24. A new metal-free protocol for oxidation of alcohols using TsNBr<sub>2</sub> without catalyst (09-4492UP)

Prodeep Phukan, Pranita Chakraborty and Indranirekha Saikia

Full Text: PDF (95K)

pp. 281 - 286

received Sep 24 2009; accepted Dec 5 2009; published Jan 24 2010;

#### 25. Synthesis and properties of fluorescent 1,3-substituted mono and biindolizines (09-4716UP)

Ramona Danac, Alexandru Rotaru, Ioan Druta and Ecaterina Avram

Full Text: PDF (277K)

pp. 287 - 299

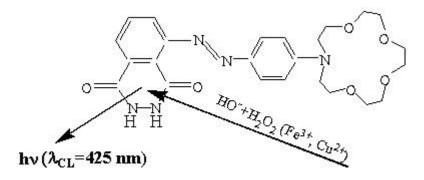
received Nov 11 2009; accepted Dec 20 2009; published Feb 11 2010;

#### **26.** Chemiluminescence of 5-(azo-para-phenylene-*N*-aza-**15**-crown-**5**)-phthalhydrazide (09-4544DP)

Rodica D. Baratoiu, Lucia Mutihac, Marilena Vasilescu, Mariana Voicescu, Alina Latus, Gabriela Ionita, Adrian Beteringhe, Titus Constantinescu and Alexandru T. Balaban

Full Text: PDF (272K)

pp. 300 - 310



received Oct 5 2009; accepted Dec 7 2009; published Jan 26 2010;

# **27. 17-Picolinylidene-androst-5-ene** derivatives and their antiaromatase and cytotoxic activity (09-4519NP)

Jovana J. Ajduković, Evgenija A. Djurendić, Marija N. Sakač, Janoš J. Čanadi, Vesna V. Kojić, Gordana M. Bogdanović and Katarina M. Penov Gaši

Full Text: PDF (303K)

pp. 311 - 323

$$R^1$$
 =  $CH$ ,  $CAC$  or  $CAC$  or  $CAC$   $CA$ 

received Sep 30 2009; accepted Jan 20 2010; published Feb 1 2010;

### 28. Heck and Suzuki cross-couplings of aryl and heteroaryl bromides in water using a new palladium(II)-complex (09-4741VP)

Kamal M. Dawood, Mohamed S. Fayed and Mohamed M. Elkhalea

Full Text: PDF (346K)

pp. 324 - 341

Ar (Het)-Br

0.5 mol% Cat. 
$$H_2O$$

Ar  $-B(OH)_2$ 

R

Ar (Het) Ar

Ar (Het)

Cat:  $N \rightarrow Pd - CI$ 

N  $\rightarrow O \rightarrow Ph$ 

received Nov 15 2009; accepted Dec 25 2009; published Feb 1 2010;

# **29.** Wurster aza-crown ethers with *N-para*-phenylene-phenothiazine or -phenoxazine groups (09-4587QP)

Alexandru T. Balaban, Ana Cristina Radutiu, Ion Baciu, Miron T. Caproiu, Constantin Draghici, Adrian Beteringhe, Gabriela Ionita, Petre Ionita, Tanta Spataru, Nicolae Spataru, Rodica D. Baratoiu and Titus Constantinescu

Full Text: PDF (444K)

pp. 342 - 362

a,X=S,R=H; b,X=S,R=CI; c,X=O,R=H

# **30.** Synthesis and *in vitro* antimicrobial evaluation of **4***H*-pyrazolopyran, -benzopyran and naphthopyran derivatives of **1***H*-pyrazole (09-4704EP)

Nilesh J. Thumar and Manish P. Patel

Full Text: PDF (335K)

pp. 363 - 380

Pyrazol-5-one or 
$$CN$$
Dimedone or  $CN$ 

ν-N

 $CN$ 

Dimedone or  $CN$ 

ν-N

 $CN$ 
 $C$ 

received Nov 10 2009; accepted Jan 17 2010; published Feb 10 2010;