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### **Graphical Abstracts**

Synth. Commun. 2006, 36, 2927

## OXIDATIVE CYCLIZATION OF AROMATIC ALDEHYDE N -ACYLHYDRAZONES BY BIS(TRIFLUOROACETOXY)IODOBENZENE $\_$

#### **Zhenhua Shang**

College of Chemical and Pharmaceutical Engineering, Hebei University of Science and Technology, Shijiazhuang, China

Aromatic aldehyde N-acylhydrazones were oxidized into 2,5-disubstituted 1,3,4-oxadiazoles with bis(trifluoroacetoxy)iodobenzene in CHCl $_3$  or DMSO at room temperature in good to excellent yields.

$$Ar \nearrow N \xrightarrow{H} R \xrightarrow{PhI(OCOCF_3)_2} Ar \xrightarrow{N-N} R$$

Synth. Commun. 2006, 36, 2939

E:Z = 100:0-55:45

ONE-POT WITTIG REACTIONS IN AQUEOUS MEDIA: A RAPID AND ENVIRONMENTALLY BENIGN SYNTHESIS OF  $\alpha,\beta$ -UNSATURATED CARBOXYLIC ESTERS AND NITRILES Jinlong Wu and Congyong Yue

Laboratory of Asymmetric Catalysis and Synthesis, Department of Chemistry, Zhejiang University, Hangzhou, China

## EXPEDITIOUS APPROACH TO COUMARINS VIA PECHMANN REACTION CATALYZED BY MOLECULAR IODINE OR AGOTF

Jie Wu, Tianning Diao, Wei Sun, and Yizhe Li

Department of Chemistry, Fudan University, Shanghai, China

An efficient and facile route for the synthesis of coumarins via Pechmann reaction catalyzed by molecular iodine or AgOTf was described.

$$R^{1}$$
 $OH$ 
 $OH$ 
 $R^{2}$ 
 $OEt$ 
 $OEt$ 

Synth. Commun. 2006, 36, 2957

## HIGHLY EFFICIENT DINITRATION OF AROMATIC COMPOUNDS IN FLUOROUS MEDIA USING YTTERBIUM PERFLUOROOCTANESULFONATE AND PERFLUOROOCTANESULFONIC ACID AS CATALYSTS

Wen-Bin Yi and Chun Cai

Chemical Engineering College, Nanjing University of Science and Technology, Nanjing, China

Synth. Commun. 2006, 36, 2963

### FACILE SYNTHESIS OF PYRAZOLO[3,4-D]PYRIMIDINES AND PYRIMIDO [4,5-D]PYRIMIDIN-4-ONE DERIVATIVES

Sanjay Babu Katiyar, Arun Kumar, and M. S. Chauhan

Medicinal and Process Chemistry Division, Central Drug Research Institute, Lucknow, India

Pyrazolopyrimidine and primidophrimidine dervatives have a shown wide range of biological activities such as acting as A<sub>1</sub> adenosine receptors, KDR, Src, EGFR, antiproliferative, DHFR, antimicrobial, antifungal, and lipid peroxidation. Because of this wide range of activities, we have synthesized pyrazolo[3,4-d]pyrimidines and pyrimido[4,5-d]pyrimidin-4-one derivatives.

## REGIOSPECIFIC PHENYL ESTERIFICATION TO SOME ORGANIC ACIDS CATALYZED BY COMBINED LEWIS ACIDS

### H. N. Roy and A. H. Al Mamun

Department of Chemistry, University of Rajshahi, Rajshahi, Bangladesh

$$R = CH_3, NH_2, OH, CI$$
 $CO_2Ph$ 
 $R = CH_3, NH_2, OH, CI$ 
 $CO_2Ph$ 
 $R = CH_3, NH_2, OH, CI$ 
 $R = CH_3, NH_2, OH, CI$ 

Synth. Commun. 2006, 36, 2983

## JUNJAPPA–ILA (JI) HETEROAROMATIC ANNULATION: A NEW GENERAL $\alpha$ -OXOKETENE DITHIOACETALS MEDIATED INVERSE METHOD FOR SYNTHESIS OF SUBSTITUTED BENZOTHIAZOLES

### Vinayak S. Hegde, Gundurao D. Kolavi, and Imtiyaz Ahmed M. Khazi

Department of Chemistry, Karnatak University, Dharwad, India

Benzothiazoles were synthesized for the first time from the properly substituted thiazole using the Junjappa–IIa (II) heteroaromatic annulation protocol.

Synth. Commun. 2006, 36, 2991

### EFFICIENT ROOM-TEMPERATURE SYNTHESIS OF TRI- AND TETRA SUBSTITUTED IMIDAZOLES CATALYZED BY ZrCl<sub>4</sub>

### G. V. M. Sharma, Y. Jyothi, and P. Sree Lakshmi

Indian Institute of Chemical Technology, Hyderabad, India

A general protocol for the synthesis of 2,4,5-trisubstituted and 1,2,4,5-tetra substituted imidazoles in high yields using  $ZrCl_4$  as an efficient catalyst at room temperature is reported. A variety of aldehydes underwent condensation with  $NH_4OAc/amines$  to give the imidazoles and imidazole glycoconjugates.

# REACTIVITY OF CHIRAL SESQUITERPENE SYNTONS OBTAINED BY THE DEGRADATION OF MASLINIC ACID FROM OLIVE-PRESSING RESIDUES A. García-Granados, P. E. López, E. Melguizo, A. Parra, and Y. Simeó

Departamento de Química Orgáca, F. Ciencias, Universidad de Granada, Granada, Spain The chemical behavior of sesquiterpene fragments from maslinic acid was studied by performing several chemical and enzymatic reactions and affording chiral synthons of use in the semisynthesis of other naturally occurring compounds.

Synth. Commun. 2006, 36, 3019

# SUZUKI COUPLING OF 2-CHLOROACRYLONITRILE, METHYL 2-CHLOROACRYLATE, OR 2-CHLOROPROP-1-EN-3-OL WITH ARYLBORONIC ACIDS CATALYZED BY A PALLADIUM-TETRAPHOSPHINE COMPLEX

Florian Berthiol, Henri Doucet, and Maurice Santelli

UMR 6180 CNRS and Université d'Aix-Marseille III, Laboratoire de Synthèse Organique, Faculté des Sciences de Saint Jérôme, Marseille, France

$$R^{1} = H, \text{ Me, Ph, OMe, F, CF}_{3}, \text{ CHO, NO}_{2}$$

$$[Pd(C_{3}H_{5})CI]_{2} / 0.5 \text{ eq. Tedicyp,} \\ xylene, K_{2}CO_{3}, 100-110 \text{ °C} \\ R^{1} = R^{1}$$

 $R^1$  = H, Me, Ph, OMe, F, CF<sub>3</sub>, CHO, NO  $R^2$  = CN, CO<sub>2</sub>Me, CH<sub>2</sub>OH, CH<sub>2</sub>OTHP

Synth. Commun. 2006, 36, 3029

## CONVENIENT SYNTHESIS OF OXAZOLIDINONES AND OXAZINONES FROM ALLYL AND HOMOALLYL AMINES UNDER MILD CONDITIONS

Eduardo García-Egido, Isabelle Fernández, and Luis Muñoz

Department of Organic Chemistry, Faculty of Chemistry, University of Vigo, Vigo, Spain

$$R^{1} \xrightarrow{\text{NHR}^{2}} \xrightarrow{\text{PhTMG, CO}_{2}, I_{2}} \xrightarrow{\text{O}} \underset{R^{3}}{\text{NR}^{2}}$$

n = 1 allylamine n = 2 homoallylamine n = 1 iodooxazolidinone n = 2 iodooxazinone Yields: 67-98%

## IONIC LIQUID–MEDIATED KNOEVENAGEL CONDENSATION OF MELDRUM'S ACID AND ALDEHYDES

Nitin B. Darvatkar, Amol R. Deorukhkar, Sachin V. Bhilare, and Manikrao M. Salunkhe Department of Chemistry, Institute of Science, Mumbai, India

Synth. Commun. 2006, 36, 3053

## [EMIM]BF<sub>4</sub>-PROMOTED CHLOROMETHYLATION OF AROMATIC HYDROCARBONS

Yun Wang, Zhi-Cai Shang, and Tian-Xing Wu

Department of Chemistry, Zhejiang University, Hangzhou, China

The chloromethlaytion of aromatic hydrocarbons proceeded efficiently using the reusuable ionic liquid [emim]BF $_4$  as promoter. The reactions were completed in 5 h at 70°C with good yields and easy workup.

$$+ \text{HCl} + (\text{CH}_2\text{O})_n \xrightarrow{\text{[emim]BF}_4} + \text{H}_2\text{C}$$

Synth. Commun. 2006, 36, 3061

## FERRIC(III) NITRATE SUPPORTED ON KIESELGUHR: A NEW REAGENT FOR SELECTIVE OXIDATION OF ALCOHOLS

Ji-Dong Lou, Long-Hua Zhu, Yi-Chun Ma, and Li Li<sup>2</sup>

<sup>1</sup>College of Life Sciences, China Institute of Metrology, Hangzhou, Zhejiang, China <sup>2</sup>Instituto Superior Tecnico, Lisbon, Portugal

## MILD AND CONVENIENT SYNTHESIS OF 1,2-DIHYDROQUINOLINES FROM ANILINES AND ACETONE CATALYZED BY YTTERBIUM(III) TRIFLATE IN IONIC LIQUIDS

Yongshu Li, Chunlei Wu, Jianliang Huang, and Weike Su

Zhejiang Key Laboratory of Pharmaceutical Engineering, College of Pharmaceutical Sciences, Zhejiang University of Technology, Hangzhou, China

A mild, convenient, and efficient process has been developed for the synthesis of 2,2,4-trimethyl-1,2-dihydroquinolines by the reaction of anilines with acetone catalyzed by ytterbium(III) triflate [Yb(OTf)<sub>3</sub>] in ionic liquids. The catalyst and ionic liquids can be easily recovered and reused, making this method friendly and environmentally acceptable. Good yields, simple operation, and short reaction times are some of the important features of this new method.

$$\mathbb{R} \xrightarrow{\text{II } ||\mathbf{r}_{0}(\mathbf{r})||_{L^{2}}} \frac{||\mathbf{r}_{0}(\mathbf{r}_{0}(\mathbf{r}_{0}(\mathbf{r}))||_{L^{2}})}{||\mathbf{r}_{0}(\mathbf{r}_{0}(\mathbf{r}_{0}(\mathbf{r}))||_{L^{2}})} \times \mathbb{R} \xrightarrow{\mathbb{R}^{2} \times \mathbb{R}^{2}} \frac{\mathbb{R}^{2}}{||\mathbf{r}_{0}(\mathbf{r}_{0}(\mathbf{r}))||_{L^{2}}} \times \mathbb{R}^{2}$$

Synth. Commun. 2006, 36, 3075

## SUPEROXIDE-MEDIATED REGIOSELECTIVE DEBLOCKING OF THE TOSYL GROUP FROM N-TOSYLCARBOXAMIDES

#### R. S. Raghuvanshi and K. N. Singh

Department of Applied Chemistry, Institute of Technology, Banaras Hindu University, Varanasi, India

In situ-generated tetraethylammonium superoxide brings about an easy and selective cleavage of the N-S bond of N-tosylcarboxamides, providing a new method for the deblocking of the tosyl group from such substrates.

Synth. Commun. 2006, 36, 3079

13 examples (68 - 98%)

## ZNBR<sub>2</sub>-CATALYZED EFFICIENT OXIDATIVE HOMO COUPLING OF ARYL MAGNESIUM BROMIDES

#### S. Ravi Kanth, G. Venkat Reddy, T. Yakaiah, B. Narsaiah, and P. Shanthan Rao

Fluoroorganic Division, Indian Institute of Chemical Technology, Hyderabad, India Oxidative homo coupling of various arylmagnesium bromides in the presence of ZnBr<sub>2</sub> gave the corresponding symmetrical biaryls in moderate to good yields at room temperature. An efficient method under mild conditions without the use of reoxidant is described.

### SYNTHESIS OF NOVEL CLASSES OF PYRIDO[2,3-D]-PYRIMIDINES, PYRANO[2,3-D]PYRIMIDINES, AND PTERIDINES

#### Mohit Lal Deb and Pulak J. Bhuyan

Medicinal Chemistry Division, Regional Research Laboratory, Jorhat, Assam, India

6-Amino-5-formyluracils 1 and 5-formyl-6-hydroxyuracils 4 react with Meldrum's acid 2 in the presence of piperidine as catalyst under thermolytic conditions to afford 6-carboxy-2,4,7-trioxopyrido[2,3-d] pyrimidines 3 and 6-carboxy-2,4,7-trioxopyrano[2,3-d]pyrimidines 5 in good yield. Under identical conditions, 6-amino-5-nitrosouracils 6 react with 2 to afford pteridine-6-carboxylic acids 7 in good yields.

Synth. Commun. 2006, 36, 3091

### FORMAL TOTAL SYNTHESIS OF ( $\pm$ )-OCCIDOL

### William J. Vera and Ajoy K. Banerjee

Centro de Química, Instituto Venezolano de Investigaciones Cientificas (IVIC), Caracas, Venezuela