

Tetrahedron Vol. 63, No. 42, 2007

# Contents

### REPORT

### **Organosilicon peroxides: radicals and rearrangements** Alwyn G. Davies

homolysis  $R_3SIO \cdot OR'$   $R_3SIO - OR'$ rearrangement  $\begin{bmatrix} R_2 & O \\ R_2Si & O \\ OR' \end{bmatrix} \rightarrow R_2Si$  OR

The peroxide bond is weak, and the most characteristic reactions of organic peroxides involve O–O homolysis to give two oxygen-centred radicals. In organosilicon peroxides, the competing factor of the strength of the Si–O bond puts simple homolysis in competition with rearrangements forming new Si–O bonds, by mechanisms which have both homolytic and heterolytic characteristics. The review analyses the current picture of the preparation, structures, and reactions of these peroxides.

#### ARTICLES

#### Simplified analogues of qinghaosu (artemisinin)

Qi Zhang and Yikang Wu\*

 $H \xrightarrow{O} G = 0$ 

# Aza-Baylis–Hillman reaction of salicyl *N*-tosylimines with methyl vinyl ketone, ethyl vinyl ketone pp 10415–10424 or phenyl vinyl ketone

Ming-Juan Qi and Min Shi\*

Reactions of salicyl *N*-tosylimines with methyl vinyl ketone, ethyl vinyl ketone or phenyl vinyl ketone proceeded smoothly under mild conditions to give the corresponding chromanes or aza-Baylis–Hillman adducts in moderate to excellent yields.



pp 10385–10405

pp 10407-10414

Copper-catalysed intramolecular O-arylation of aryl chlorides and bromides: a straightforward pp 10425-10432 approach to benzo[d]oxazoles in water

Nekane Barbero, Mónica Carril, Raul SanMartin\* and Esther Domínguez\*

$$\begin{array}{c} \left( \begin{array}{c} X \\ R \end{array} \right) \\ R \\ H \\ H \\ H \\ H \\ H \\ R' \\ H_2O, 120 \ ^{\circ}C \\ R \\ R' = Ar, \ HetAr \\ \end{array} \right)$$

Facile and chemo-selective synthesis of tertiary alkyl isothiocyanates from alcohols Hideyoshi Miyake,\* Yuichi Nakao and Mitsuru Sasaki



Cat. 8b 10 mol % HOAc 20 mol % R<sup>2</sup> [ -60~ -40 °C

Ph

R

8b

κ<sup>1</sup>

Up to 99% yield

Up to 90% ee

Jia-Rong Chen, Xiao-Peng Liu, Xiao-Yu Zhu, Liang Li, Yong-Feng Qiao, Jian-Ming Zhang and Wen-Jing Xiao\*

Ph





pp 10445-10453



pp 10433-10436



HO

но

0

ÓН

Gallic acid

## Total synthesis of 3,3',4-tri-O-methylellagic acid from gallic acid

Ashraful Alam and Sadao Tsuboi\*

Total synthesis of 3.3.'4-tri-O-methylellagic acid has been achieved from gallic acid. Construction of crucial unsymmetric Ar-Ar bond was tried in various ways such as Ullmann cross-coupling, Suzuki crosscoupling, intramolecular Heck coupling, etc. But all the attempts were unsuccessful and finally it has been achieved by the intramolecular Ullmann coupling.



Radek Gažák, Vladimír Křen,\* Petr Sedmera, Daniele Passarella, Michaela Novotná and Bruno Danieli

A new method for the oxidation of ergoline alcohols to aldehydes was found (TFFA-DMSO) and structural features of ergolines required for successful C7-C8 double bond introduction via Polonovski-Potier reaction were established.

## Triazolopyridines. Part 25: Synthesis of new chiral ligands from [1,2,3]triazolo[1,5-a]pyridines Belén Abarca,\* Rafael Ballesteros, Rafael Ballesteros-Garrido, Françoise Colobert\* and Frédéric R. Leroux





 $X = CH_2$ ,  $NCO_2R$ 



OR

OMe





pp 10486-10496

OH

OMe

Ò

10381

Synthesis of angularly fused cyclopentanoids and analogous tricycles via photoinduced ketyl radical/radical anion fragmentation-cyclization reactions Nikolay T. Tzvetkov, Torsten Arndt and Jochen Mattay\*



From dicarbonylallene to 1-aryl-3,6-dimethyl-4-aminoaryl-2-pyridones: a one-pot versatile and pp 10511–10520 uncatalyzed synthesis

Thomas Boisse, Benoît Rigo,\* Régis Millet and Jean-Pierre Hénichart



Enantioselective synthesis of α-hydroxy-β-amino acids from α-amino acids mediated by sulfoxides pp 10521–10527 Rubén Sánchez-Obregón, Fernando Salgado, Benjamín Ortiz, Eduardo Díaz, Francisco Yuste,\* Fernando Walls and José L. García Ruano\*



**Diol desymmetrization as an approach to the synthesis of unsymmetrical dienyl diesters** David J. Phillips, Kathryn S. Pillinger, Wei Li, Angela E. Taylor and Andrew E. Graham<sup>\*</sup> pp 10528-10533

$$HO (f_n) HO (h_n) H$$

# An efficient synthesis of dehydroamino acids and dehydropeptides from *O*-Cbz and *O*-Eoc pp 10534–10542 derivatives of serine and threonine Ramapanicker Ramesh, Kavita De and Srinivasan Chandrasekaran\* A very mild and efficient procedure for the synthesis of dehydroamino acids and dehydropeptides through an *anti*-selective $E_2$ elimination of *O*-Cbz and *O*-Eoc derivatives of serine and threonine using K<sub>2</sub>CO<sub>3</sub> in DMF is reported. $K_2CO_3, 60 °C, 1 h DMF$ $K_2CO_3, 60 °C, 1 h DMF$ $K_2CO_3, 60 °C, 1 h DMF$

# Electrocatalytic multicomponent transformation of cyclic 1,3-diketones, isatins, and malononitrile: pp 10543–10548 facile and convenient way to functionalized spirocyclic (5,6,7,8-tetrahydro-4*H*-chromene)-4,3'- oxindole system

Michail N. Elinson,<sup>\*</sup> Alexey I. Ilovaisky, Alexander S. Dorofeev,<sup>\*</sup> Valentina M. Merkulova, Nikita O. Stepanov, Fedor M. Miloserdov, Yuri N. Ogibin and Gennady I. Nikishin



# Limitations of the Wittig–Horner-type annulation of fluorobutenolide moiety to 3-hydroxyquinoline- pp 10549–10561 2,4(2*H*,3*H*)-diones. Novel modifications of the Perkow reaction including fluorinated acyloxy leaving groups

Karel Pomeisl,\* Jaroslav Kvíčala, Oldřich Paleta, Antonín Klásek, Stanislav Kafka, Vladislav Kubelka, Jaroslav Havlíček and Jan Čejka



\*Corresponding author ()<sup>+</sup> Supplementary data available via ScienceDirect



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