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Pentamethylcyclopentadienide in organic synthesis: nucleophilic addition of lithium pentamethylcyclopentadienide to aromatic aldehydes and carbon-carbon bond cleavage of the adducts affording the parent aldehydes

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Kazunari Yagi, Hideki Yorimitsu* and Koichiro Oshima*

(i)+

Asymmetric synthesis of thymine nucleoside analogues based on the isochroman core Christophe Len* and Bruno Violeau

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New synthesis of arcyriaflavin-A via silyl enol ether-mediated and Fischer indolisations Dulce Alonso, Esther Caballero,* Manuel Medarde and Fernando Tomé*

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Synthesis of a novel series of 4,4-disubstituted 2,3,4,7-tetrahydroazepines

pp 4847-4850

Mario Barberis, Pablo García-Losada, Sehila Pleite, Juan Ramón Rodríguez, José Francisco Soriano and Javier Mendiola*

A general, simple and straightforward strategy for the synthesis of a novel series of 4,4-disubstituted 2,3,4,7-tetrahydroazepines is described. This route involves a one-pot Wittig olefination/N-allylation process on a five-membered hemi-aminal followed by a final ring closing metathesis reaction.

Reaction of N-fluoropyridinium fluoride with isonitriles and $TMSN_3$: a convenient one-pot synthesis of tetrazol-5-yl pyridines

pp 4851–4854

Alexander S. Kiselyov

$$\frac{\mathbf{F_2, CHCl_3}}{-60^{\circ}\mathbf{C}} \left[\begin{array}{c} \mathbf{R} \\ \oplus \\ \mathbf{F} \end{array} \right] - \frac{\mathbf{R'-NC}}{-60^{\circ}\mathbf{C} \text{ to RT}} \left[\begin{array}{c} \mathbf{R'-NC}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \\ \mathbf{N} \end{array} \right] + \left[\begin{array}{c} \mathbf{R'-NC'}, \\ \mathbf{N} \\ \mathbf{N}$$

A novel direct N-alkenylation of nitrogen-containing heterocycles with magnesium alkylidene carbenoids

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Tsuyoshi Satoh,* Jo Sakurada and Yumi Ogino

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Construction of vicinal quaternary carbon atoms by Ireland ester Claisen rearrangement: total synthesis of (\pm) -herbertenolide, (\pm) -herberteneacetal, (\pm) -herbertene-1,14-diol and (\pm) -herbertene-1,15-diol

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A. Srikrishna* and B. Vasantha Lakshmi



Stereoselective synthesis of (E)-1-iodo-1-selenoalkenes via hydroalumination-iodination of 1-alkynyl selenides

pp 4883-4886

Carlos Pérez-Balado, Fabio Lucaccioni and István E. Markó*

$$R = SeTIPP \xrightarrow{\text{DIBAL-H} \\ \text{hexane/toluene} \\ 0^{\circ}\text{C to rt}} \begin{bmatrix} R & \text{SeTIPP} \\ H & \text{Al}(i\text{-Bu})_2 \end{bmatrix} \xrightarrow{\text{THF}} \begin{bmatrix} I_2 & R & \text{SeTIPF} \\ -78^{\circ}\text{C to rt} & \text{82-95\%} \end{bmatrix}$$

$$TIPP = 2,4,6-triisopropylphenyl = \frac{3}{3} \frac{1}{3} \frac{1}{3$$

A connective approach to the tetrahydropyran subunit of polycavernoside A via a novel 1,1-dianion equivalent

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Carlos Pérez-Balado and István E. Markó*

Synthesis of phosphocyclic 2,2',7,7'-tetrahydroxydinaphthylmethane derivatives

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Vera I. Maslennikova, Tatyana Yu. Sotova, Larisa K. Vasyanina, Ingmar Bauer, Wolf D. Habicher and Eduard E. Nifantyev*

Synthesis of novel rigid-rod and tripodal azulene chromophores

pp 4895-4899

Massimiliano Lamberto, Cynthia Pagba, Piotr Piotrowiak* and Elena Galoppini*

Two novel azulene chromophores 1 and 2 were synthesized and bound to colloidal TiO_2 to study dynamics of electron injection at the interface of TiO_2 semiconductor nanoparticles. Fluorescence quenching was observed upon binding.

One-pot tethering of organic molecules through non-symmetric malonate derivatives

pp 4901-4903

Daniel Sherman, Rimma Shelkov and Artem Melman*

t-BuPh₂SiO OH
$$\frac{1. R^{1}OH, DCC}{2. Et_{3}N\cdot 3HF}$$
 $\frac{3. R^{2}OH, DCC}{One-pot}$ $R^{2}O$ $R^{2}O$

Convenient fluorination of nitro and nitrile compounds with Selectfluor

pp 4905-4909

Weimin Peng and Jean'ne M. Shreeve*

A variety of nitro and nitrile compounds were fluorinated in good yields with Selectfluor. Selecting the appropriate base as a function of the properties of the substrate and using proper amounts of the base and of Selectfluor were crucial for successful syntheses.

Stereoselective synthesis of the C₁-C₁₃ segment of dolabelide B

pp 4911-4914

Gary E. Keck* and Mark D. McLaws

$$\begin{array}{c}
\text{QAC OAC} & \text{QTBS} \\
\text{OTBS} & \text{Me} \\
\text{OBn}
\end{array}$$

$$\begin{array}{c}
\text{O} \\
\text{H} \\
\text{H}
\end{array}$$

$$\begin{array}{c}
\text{O} \\
\text{SnBu}_3 \\
\text{H}
\end{array}$$

$$\begin{array}{c}
\text{O} \\
\text{Me} \\
\text{OBn}
\end{array}$$

Synthesis of a boronated amino acid as a potential neutron therapy agent: 1-amino-3-[(dihydroxyboryl)ethyl]cyclobutanecarboxylic acid

pp 4915-4917

George W. Kabalka,* Min-Liang Yao and Abhijit Navarane

BnO
$$\longrightarrow$$
 (HO)₂B(CH₂)₂ \longrightarrow NH₂

A novel boronated aminocyclobutanecarboxylic acid was synthesized in 10 steps for potential use in neutron capture therapy. The molecule was modeled after the unnatural amino acid 1-aminocyclobutanecarboxylic acid, which has shown high uptake in brain tumors.

Synthesis of substituted aryl amidines from aminoacetonitriles

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Zhiwei Yin, Zhongxing Zhang, Juliang Zhu, Henry Wong, John F. Kadow, Nicholas A. Meanwell and Tao Wang*



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(1) Supplementary data available via ScienceDirect



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