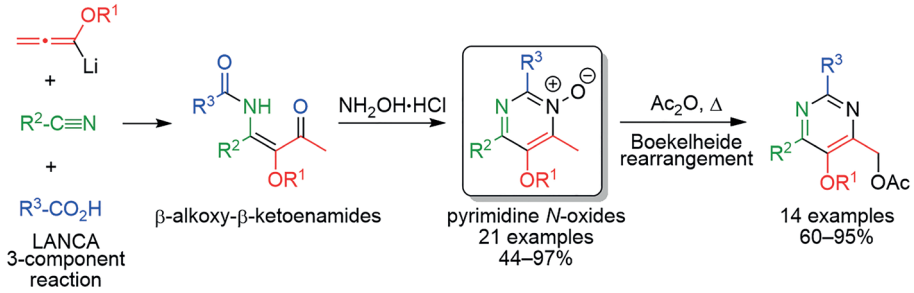
Synthesis

Reviews and Full Papers in Chemical Synthesis

June 16, 2021 • Vol. 53, 2015–2166



Access to Highly Substituted Pyrimidine *N*-Oxides and 4-Acetoxymethyl-Substituted Pyrimidines via the LANCA Three-Component Reaction–Cyclocondensation Sequence

L. Schefzig, T. Kurzawa, G. Rancan, I. Linder, S. Leisering, M. K. Bera, M. Gart, R. Zimmer, H.-U. Reissig

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Thieme

Synthesis

Reviews and Full Papers in Chemical Synthesis

2021
Vol. 53, No. 12
June II

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Cover Image: L. Schefzig et al.

Synthesis

Synthesis **2021**, *53*, 2015–2028
DOI: 10.1055/a-1370-2046

R. Neri
S. H. Bossmann*
Kansas State University, USA
The University of Kansas Medical Center, USA

Isoselenocyanates: Synthesis and Their Use for Preparing Selenium-Based Heterocycles

Short Review

2015

Synthesis

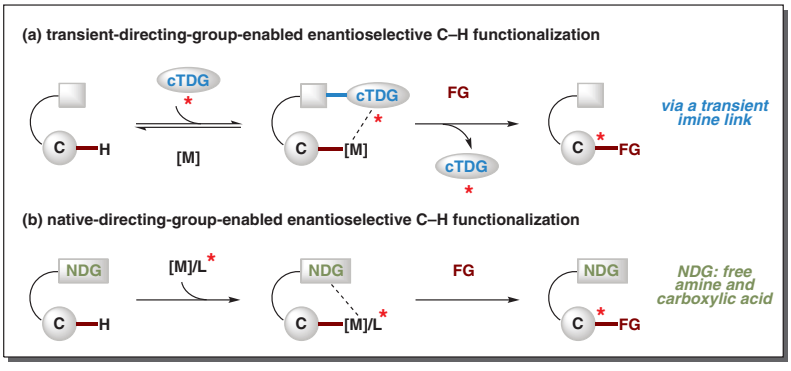
Synthesis **2021**, *53*, 2029–2042
DOI: 10.1055/a-1372-6627

B. Zu
Y. Guo
J. Ke
C. He*
Southern University of Science and Technology, P. R. of China

Transient- and Native-Directing-Group-Enabled Enantioselective C–H Functionalization

Short Review

2029



Synthesis

Catalytic Activation of a Carbon–Chloride Bond by Dicationic Tellurium-Based Chalcogen Bond Donors

Feature

2043

Synthesis **2021**, *53*, 2043–2050
DOI: 10.1055/a-1372-6309

T. Steinke
P. Wonner
E. Engelage
S. M. Huber*
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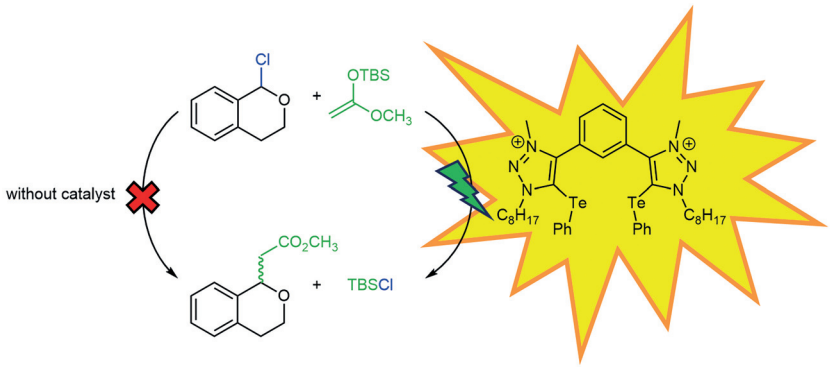


Synthesis

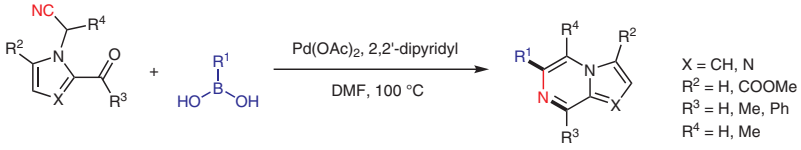
Palladium(II)-Catalyzed C(sp)–C(sp^2) Coupling: A Direct Approach to Multi-Substituted Pyrrolo[1,2-*a*]pyrazines

Paper

2051

Synthesis **2021**, *53*, 2051–2056
DOI: 10.1055/s-0040-1706644

C. He
Z. Wang
Y. Chen
G. Zhang*
Y. Yu*
College of Pharmaceutical Sciences, P. R. of China



- C–C and C–N coupling cascade
- easy operation
- broad substrate scope

19 examples
up to 90% yield

Synthesis

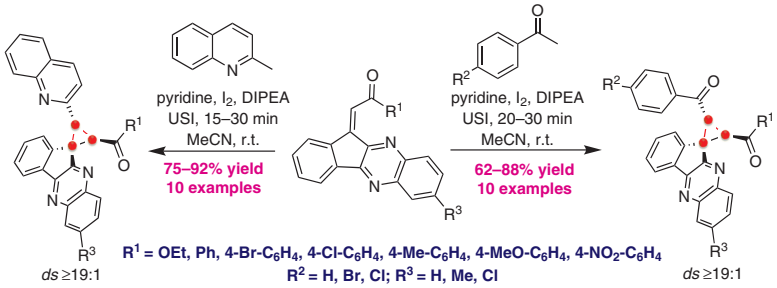
Ultrasound-Promoted Synthesis of Spirocyclopropanes from Switchable Starting Materials *via* Azomethine Ylide [3+2]-Cycloaddition

Paper

2057

Synthesis **2021**, *53*, 2057–2066
DOI: 10.1055/a-1370-1884

I. Yavari*
S. Sheikhi
J. Sheykhahmadi
Z. Taheri
M. R. Halvagar
Tarbiat Modares University, Iran



• Efficient and Short Reactions • Easily Accessible Substrates • Remarkable Stereocontrol • Operationally Simple

Synthesis

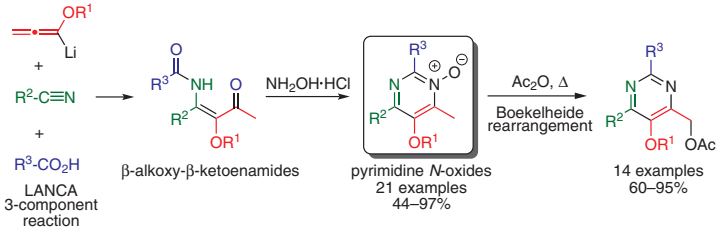
Synthesis **2021**, *53*, 2067–2080
DOI: 10.1055/s-0040-1706020

Access to Highly Substituted Pyrimidine *N*-Oxides and 4-Acetoxymethyl-Substituted Pyrimidines via the LANCA Three-Component Reaction–Cyclocondensation Sequence

Paper

2067

L. Schefzig
T. Kurzawa
G. Rancan
I. Linder
S. Leisering
M. K. Bera
M. Gart
R. Zimmer*
H.-U. Reissig*
Freie Universität Berlin, Germany



Synthesis

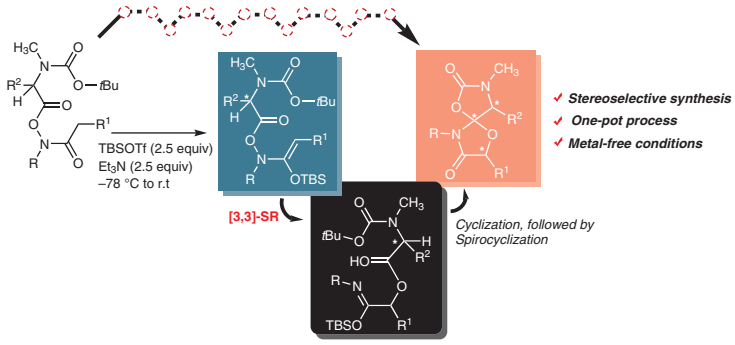
Synthesis **2021**, *53*, 2081–2091
DOI: 10.1055/s-0040-1706660

A Cascade Process of Hydroxamates Renders 1,6-Dioxa-3,9-diazaspiro[4.4]nonane-2,8-diones

Paper

2081

Z. Nazarian*
C. M. Forsyth*
Monash University, Australia



Synthesis

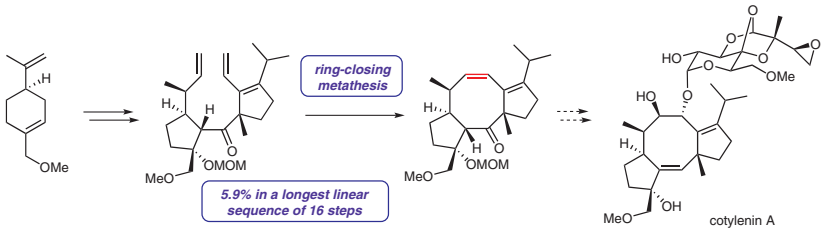
Synthesis **2021**, *53*, 2092–2102
DOI: 10.1055/s-0040-1706684

Stereoselective Convergent Synthesis of Carbon Skeleton of Cotylenin A Aglycone

Paper

2092

M. Kuwabara
A. Matsuo
S. Kamo
A. Matsuzawa
K. Sugita*
Hoshi University, Japan



Synthesis

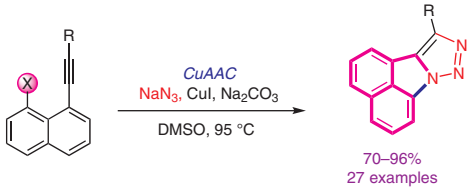
Synthesis **2021**, *53*, 2103–2113
DOI: 10.1055/a-1364-9308

K. Majeed
B. Liu
F. Zhou*
Q. Zhang*

Northwestern Polytechnical University, P. R. of China
Jinan University, P. R. of China

Synthesis of 1,2,3-Triazole-Fused Indole Derivatives via Copper-Catalyzed Cascade Reaction

Paper



Synthesis

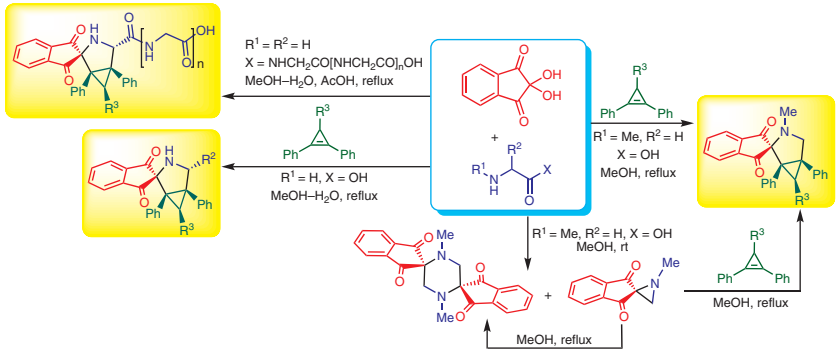
Synthesis **2021**, *53*, 2114–2132
DOI: 10.1055/a-1360-9716

S. Wang
A. S. Filatov
S. V. Lozovskiy
S. V. Shmakov
O. V. Khoroshilova
A. G. Larina
S. I. Selivanov
V. M. Boitsov*
A. V. Stepakov*

Saint Petersburg State University, Saint Petersburg Academic University Nanotechnology Research and Education Centre RAS, Pavlov First Saint Petersburg State Medical University, and Saint Petersburg State Institute of Technology, Russian Federation

Construction of Spiro[3-azabicyclo[3.1.0]hexanes] via 1,3-Dipolar Cycloaddition of 1,2-Diphenylcyclopropenes to Ninhydrin-Derived Azomethine Ylides

Paper



Synthesis

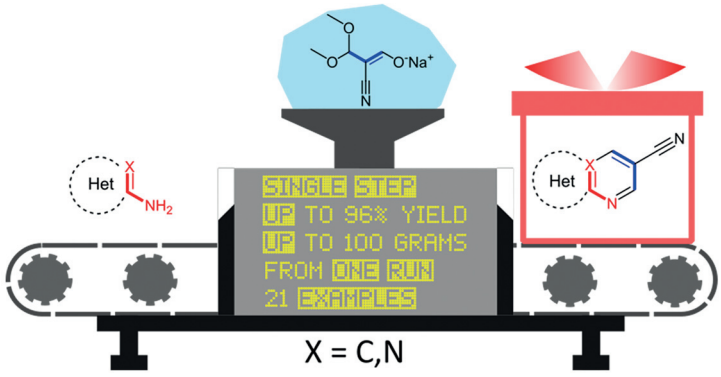
Synthesis **2021**, *53*, 2133–2141
DOI: 10.1055/a-1360-9852

A. P. Mityuk
A. Hrebonkin
P. S. Lebed
G. P. Grabchuk
D. M. Volochnyuk*
S. V. Ryabukhin*

Enamine Ltd., Ukraine
Taras Shevchenko National University of Kyiv, Ukraine
Institute of Organic Chemistry, National Academy of Sciences, Ukraine

Efficient Route for the Synthesis of Diverse Heteroannelated 5-Cyanopyridines

Paper



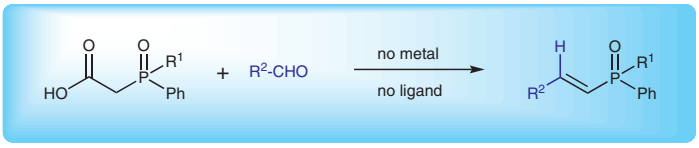
Synthesis

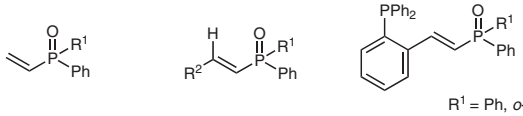
Synthesis **2021**, *53*, 2142–2154
DOI: 10.1055/s-0040-1705993

K. Dziuba*
S. Frynas
K. Szwaczko*
Marie Curie-Sklodowska University in Lublin, Poland

Knoevenagel Condensation of Phosphinoylacetic Acids with Aldehydes: An Efficient One-Pot Strategy for the Synthesis of P-Functionalized Alkenyl Compounds

Transition-metal-free approach to alkenylphosphine oxides





R^1 = Ph, *o*-An, *t*-Bu

>30 examples, yields up to 93%, excellent regioselectivity *E*/*Z* up to 99:1

Synthesis

Synthesis **2021**, *53*, 2155–2166
DOI: 10.1055/a-1348-9031

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Continued Exploration of Trifunctional Alkyl 4-Chloro-2-diazo-3-oxobutanoates: Streamlined Entry into [1,2,3]Triazolo[5,1-*c*][1,4]-benzoxazines and [1,2,3]Triazolo[5,1-*c*][1,4]benzoxazepines