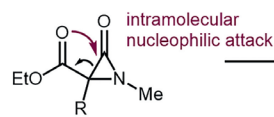
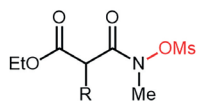


Synthesis

Reviews and Full Papers in Chemical Synthesis

August 17, 2023 • Vol. 55, 2416–2608

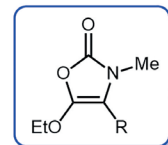
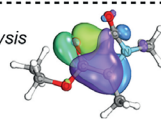
N-mesyloxyamides



α-lactam intermediate

followed by IBO analysis

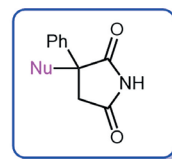
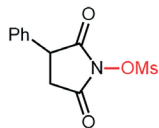
$$\psi_i(r) = \sum_k^N \psi_k(r) U_{ki}$$



fully substituted oxazolones

up to 94% yield
masked α-amino acids

N-mesyloxyimides



quaternary succinimides

Use of the N–O Bonds in *N*-Mesyloxyamides and *N*-Mesyloxyimides To Gain Access to 5-Alkoxy-3,4-dialkyloxazol-2-ones and 3-Hetero-Substituted Succinimides: A Combined Experimental and Theoretical Study

L. Pfitzer, J. Heitkämper, J. Kästner, R. Peters

16



Thieme

Synthesis

Synthesis **2023**, 55, 2415–2426
DOI: 10.1055/s-0042-1751450

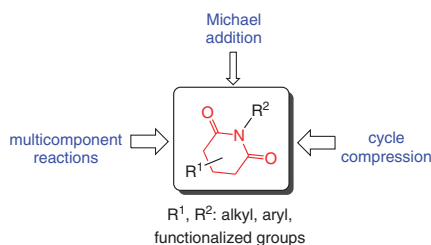
Y. A. Trukhanova*
N. M. Chernov
E. V. Kuvaeva
I. P. Yakovlev

Saint Petersburg State Chemical
and Pharmaceutical University,
Russian Federation

Preparation of *N*- and *C*-Functionally-Substituted Glutarimides: A Review

Review

2415



Synthesis

Synthesis **2023**, 55, 2427–2438
DOI: 10.1055/a-2039-5424

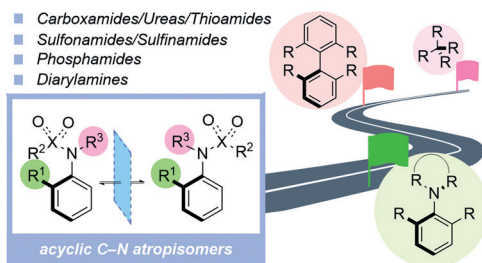
A. D. G. Campbell
R. J. Armstrong*

Newcastle University, UK

Synthetic Strategies to Control *C*-*N* Atropisomerism in Acyclic Amines and Amides

Short Review

OPEN ACCESS 2427



Synthesis

Synthesis 2023, 55, 2439–2459
DOI: 10.1055/a-2085-3410

E. Juaristi*

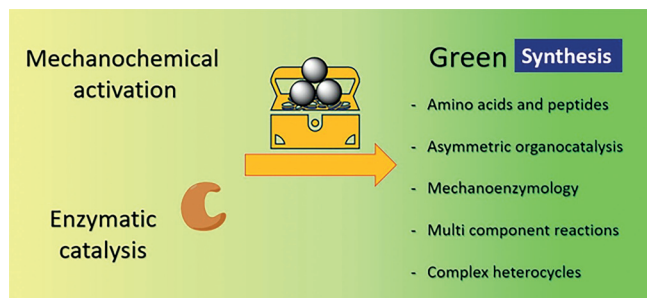
C. G. Avila-Ortiz

Centro de Investigación y de Estudios Avanzados, Mexico

Salient Achievements in Synthetic Organic Chemistry Enabled by Mechanochemical Activation

Short Review

2439



Synthesis

Synthesis 2023, 55, 2460–2472
DOI: 10.1055/s-0042-1751447

L. Pfitzer

J. Heitkämper

J. Kästner

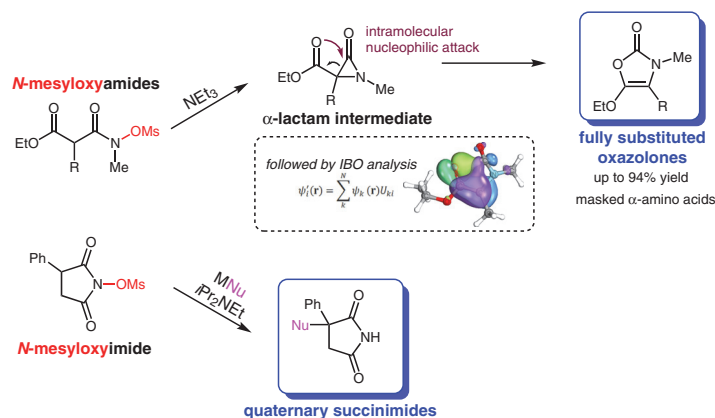
R. Peters*

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Use of the N–O Bonds in *N*-Mesyloxyamides and *N*-Mesyloxyimides To Gain Access to 5-Alkoxy-3,4-dialkyloxazol-2-ones and 3-Hetero-Substituted Succinimides: A Combined Experimental and Theoretical Study

Feature

2460



Synthesis

Synthesis 2023, 55, 2473–2482
DOI: 10.1055/a-2097-0092

T. Berking

W. Frey

C. Richert*

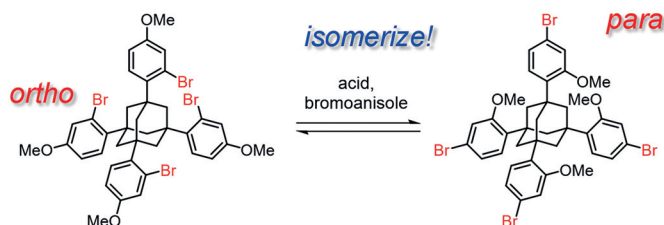
University of Stuttgart, Germany

Kinetic or Thermodynamic Product? Case Studies on the Formation of Regioisomers of Tetraphenyladamantanes

Feature

OPEN ACCESS

2473



Synthesis

Synthesis 2023, 55, 2483–2486
DOI: 10.1055/a-2063-1330

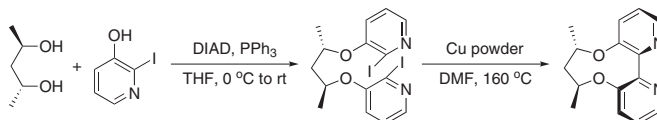
Z. Liu
S.-M. Lu*
B.-Q. Zhao
H.-D. Chen
M.-W. Chen
Y.-G. Zhou*

Dalian Institute of Chemical
Physics, P. R. of China
University of Chinese Academy
of Sciences, P. R. of China

An Improved Synthesis of Chiral 2,2'-Bipyridine Ligand C3-ACBP Without Column Chromatography

PSP

2483

**Improvement:**

1. Using ZnCl_2 to precipitate the intermediate
2. Using Na_2S to coordinate Cu and release the ligand

without column chromatography
7 gram scale within 3–4 days
48% overall yield

Synthesis

Synthesis 2023, 55, 2487–2494
DOI: 10.1055/a-2065-5802

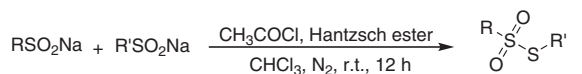
X. Cheng
M. Zhang
G. Qiu*
D. Zheng*

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P. R. of China
Jiaxing University, P. R. of China
Nanjing Tech University,
P. R. of China

Reductive Coupling of Sodium Sulfonates for the Synthesis of Thiosulfonates

Paper

2487



- *disproportionate coupling*
- *radical pathway, transition-metal-free*
- *extremely mild conditions, gram-scale*

28 examples
up to 92% yield

Synthesis

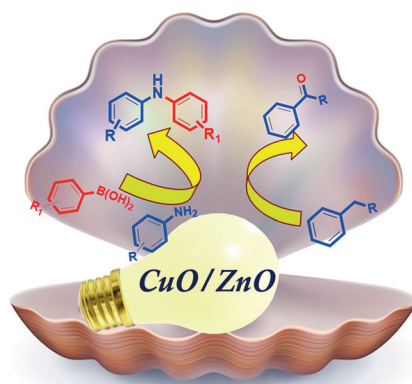
Synthesis 2023, 55, 2495–2502
DOI: 10.1055/a-2069-4495

M. R. Daneshvar
M. Tavakolian
M. Hosseini-Sarvari*
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Visible-Light-Responsive Nano CuO/ZnO Photocatalyst for Chan–Lam Coupling Reaction and Aerobic C(sp³)–H Bond Oxidation

Paper

2495



Synthesis

Synthesis 2023, 55, 2503–2516
DOI: 10.1055/a-2063-0303

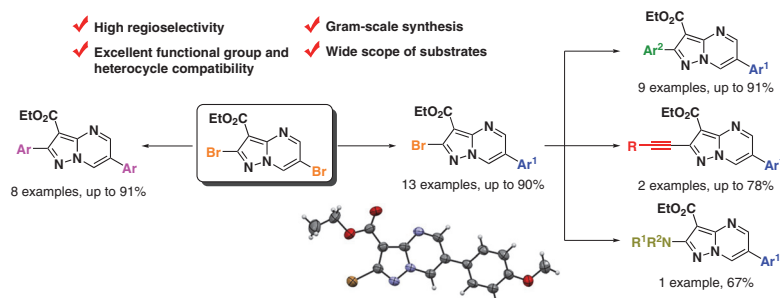
B. Jismy*
C. Messaoudi
H. Allouchi
A. Tikad
H. M'Rabet
M. Abarbri*

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Université de Tunis El Manar,
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Université Moulay Ismail,
Morocco

Regioselective Suzuki–Miyaura Reactions of Ethyl 2,6-Dibromopyrazolo[1,5-*a*]pyrimidine-3-carboxylate

Paper

2503



Synthesis

Synthesis 2023, 55, 2517–2525
DOI: 10.1055/a-2055-7678

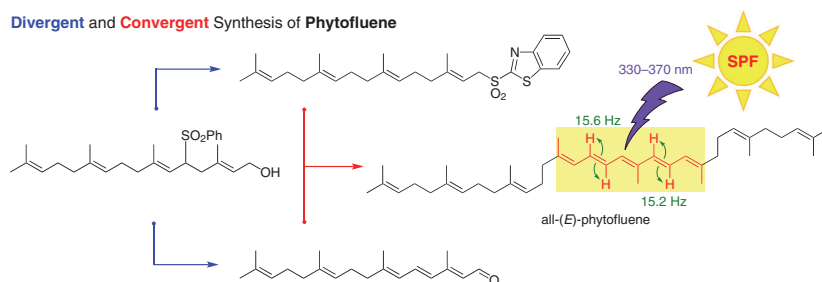
C. Boo
H. Kim
H. Yang
S. Han
H. Yeo
C. Seo
S. Koo*

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Preparation of Divergent Intermediates and Convergent Synthesis of Phytofluene

Paper

2517



Synthesis

Synthesis 2023, 55, 2526–2536
DOI: 10.1055/a-2053-2811

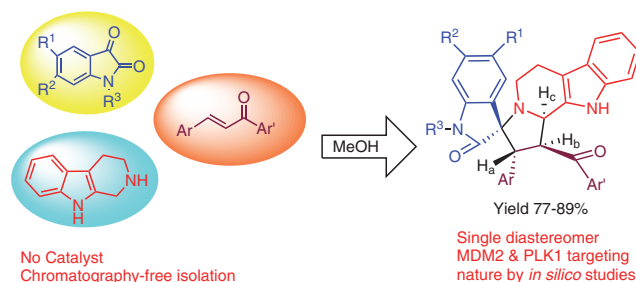
M. Mohan
S. P. Eldhose
A. Sudheendranath
E. G. Jayasree
A. Deepthi*

University of Kerala, India
Cochin University of Science and
Technologie, India

Green Stereoselective Synthesis and *In Silico* Anticancer Evaluation of Tetrahydro- β -carboline-Derived Spiro Heterocycles

Paper

2526



Synthesis

Palladium/Azaphos-Catalyzed Asymmetric Suzuki–Miyaura Coupling

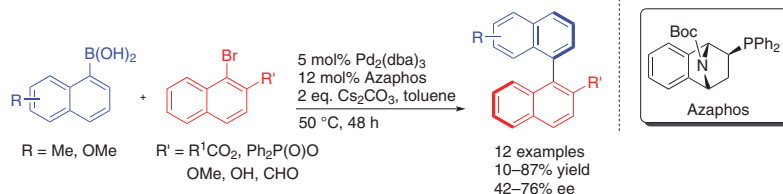
Paper

2537

Synthesis **2023**, *55*, 2537–2542
DOI: 10.1055/a-2069-4665

Y. Jiang
K. W. Cheng
H. Zhang
Z. Yang*
J. (Joelle) Wang*

Hong Kong Baptist University,
P. R. of China
Southern University of Science
and Technology, P. R. of China



Synthesis

Hectogram-Scale Synthesis of Indobufen from Diludine-Triggered Metal-Free Cascade

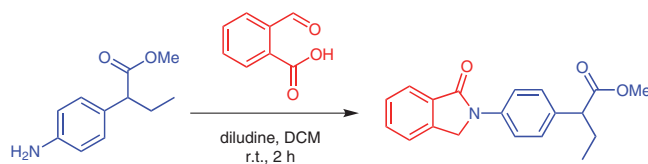
Paper

2543

Synthesis **2023**, *55*, 2543–2546
DOI: 10.1055/a-2044-9772

Y. Hua
B. Liu
J. Cai
T. Wang
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Synthesis

Pd-Catalyzed MIA-Directed Methoxylation of Phenylalanines: A Combined Experimental and Computational Study

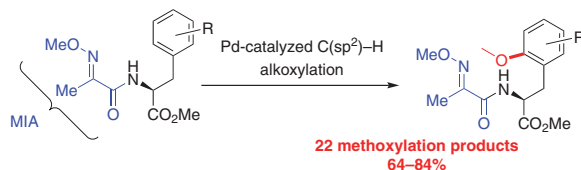
Paper

2547

Synthesis **2023**, *55*, 2547–2553
DOI: 10.1055/a-2055-2313

W.-J. Tang
S.-M. Dai
Y. Yuan
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Synthesis

Synthesis **2023**, 55, 2554–2560
DOI: 10.1055/a-2051-0933

Y. Chen
Q. Zhu
H. Wang
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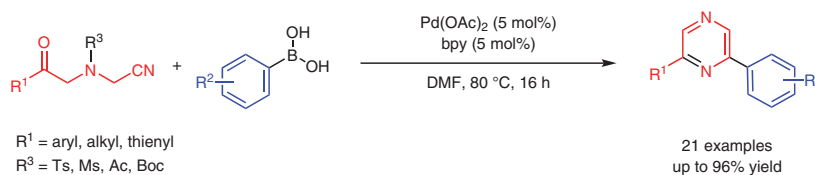
W. Chen*
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Palladium(II)-Catalyzed Intramolecular Tandem Cyclization Reaction for the Assembly of Unsymmetrical 2,6-Disubstituted Pyrazines

Paper

2554



Synthesis

Synthesis **2023**, 55, 2561–2569
DOI: 10.1055/a-2065-3169

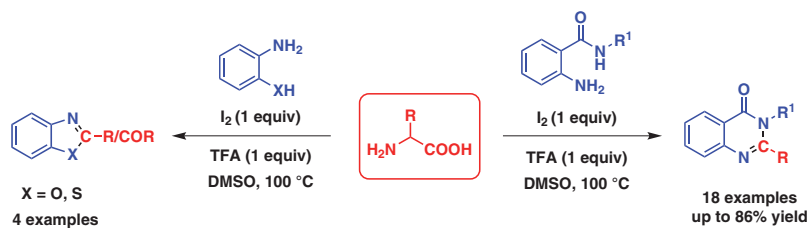
S. K. Samanta
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Shibpur, India

An Efficient Route towards Quinazolinone Derivatives via I_2/DMSO -Promoted Oxidative Decarboxylation of α -Amino Acids and Subsequent Oxidative Annulation Reaction

Paper

2561



Synthesis

Synthesis **2023**, 55, 2570–2580
DOI: 10.1055/a-2058-0119

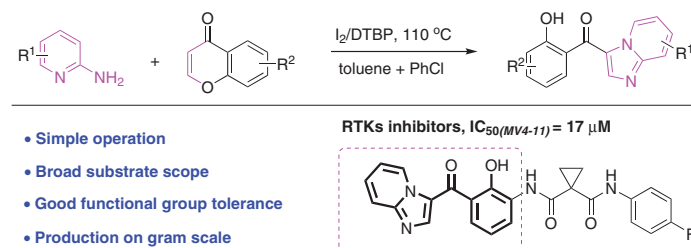
Q. Huang
L. Wu
J. Shi
J. Li
W. Lu
F. Tang
L. Zhu
W. Zhong*
C. Zhao*

Zunyi Medical University, Zunyi,
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ceutical College, P. R. of China

I_2/DTBP Promoted Synthesis of C3-Carbonylated Imidazopyridines from Chromones and 2-Aminopyridines via (3+2) Cycloaddition

Paper

2570



Synthesis

Synthesis 2023, 55, 2581–2585
DOI: 10.1055/a-2085-5125

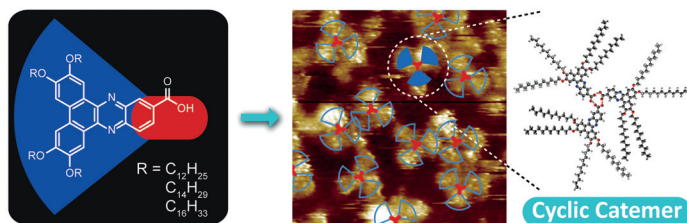
Y.-R. Chen
Y.-Y. Zhang
C. W. Ong*
M.-C. Yeh
K.-s. Ye
S.-C. Hsieh
S.-L. Lee*
K.-Y. Cheng
C.-h. Chen

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Hierarchical Supramolecular Nanostructures of Cyclic Hydrogen-Bonding Catemers in Dibenzo[*a,c*]phenazinecarboxylic Acid Discotic Liquid Crystals

Paper

2581



Synthesis

Synthesis 2023, 55, 2586–2594
DOI: 10.1055/a-2067-4165

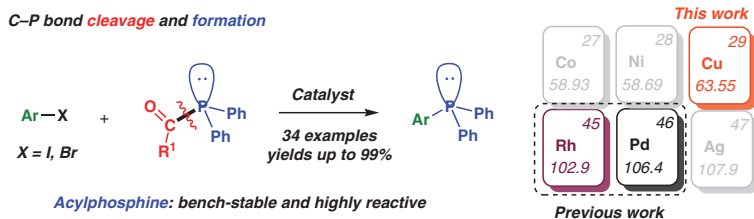
M. Xu
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H. Zhu*
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Beijing University of Chemical
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Synthesis of Triarylphosphines via Cu-Catalyzed Coupling of Aryl Halides and Acylphosphines

Paper

2586



Synthesis

Synthesis 2023, 55, 2595–2601
DOI: 10.1055/a-2079-3865

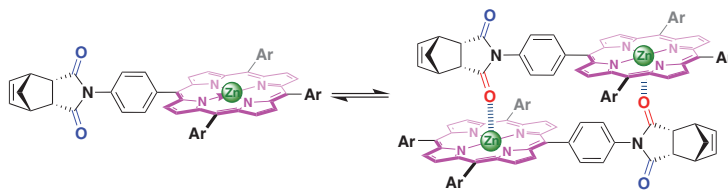
Y. Ke*
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Z. Liu*
T.-Y. Luh*

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National Taiwan University,
Taiwan
Westlake University, and West-
lake Institute for Advanced
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Self-Complementary Dimer of Zinc(II) Porphyrins through Coordination with Oxygen Ligands

Paper

2595



Synthesis 2023, 55, 2602–2608
DOI: 10.1055/a-2058-0355

K. Gao
H. Ma
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