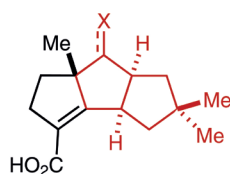


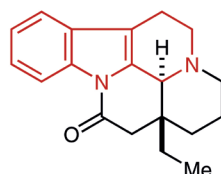
Synthesis

Reviews and Full Papers in Chemical Synthesis

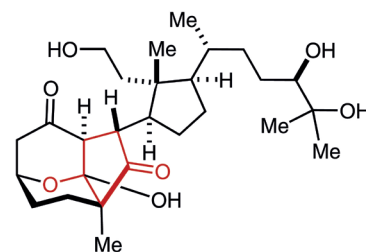
July 4, 2023 • Vol. 55, 1949–2108



chondrosterin I, X = O
chondrosterin J, X = OH



(-)-20-epi-eburnamonine



aplysiasecosterol A

Recognition of Symmetry as a Powerful Tool in Natural Product Synthesis

L. Cala, M. A. Gaviria, S. L. Kim, T. R. Vogel, C. S. Schindler

13

Synthesis

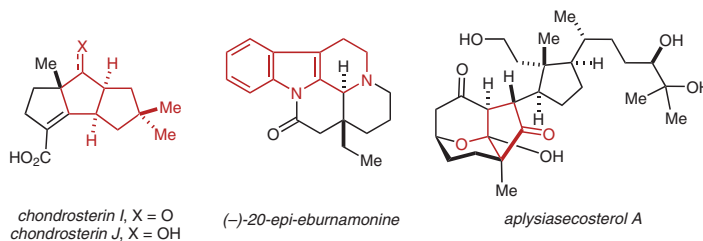
Synthesis 2023, 55, 1949–1960
DOI: 10.1055/a-1702-5062

L. Cala
M. A. Gaviria
S. L. Kim
T. R. Vogel
C. S. Schindler*
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Recognition of Symmetry as a Powerful Tool in Natural Product Synthesis

Short Review

1949



Synthesis

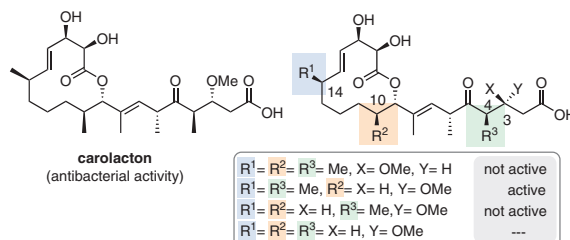
Synthesis 2023, 55, 1961–1983
DOI: 10.1055/a-2013-9333

J. Ammermann
J. Meyer
J. Donner
M. Reck
I. Wagner-Döbler
A. Kirschning*
Leibniz University Hannover,
Germany

New Demethylated Derivatives of Carolacton and Structure–Activity Relationship (SAR) Studies on Their Biofilm Inhibitory Properties

Feature

1961



Synthesis

Synthesis 2023, 55, 1984–1995
DOI: 10.1055/a-2029-0345

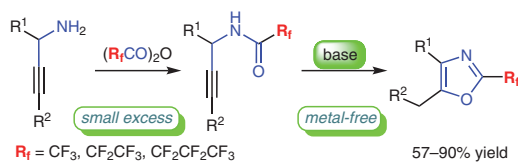
T. Sugiishi
R. Motegi
H. Amii*

Gunma University, Japan

Intramolecular Cyclization of *N*-Propargylic Amides without Transition-Metal Catalysis for Synthesis of Fluoroalkylated Oxazoles: Using Carboxylic Acid Anhydrides as the Fluoroalkyl Source

PSP

1984



Synthesis

Synthesis 2023, 55, 1996–2004
DOI: 10.1055/a-2030-7730

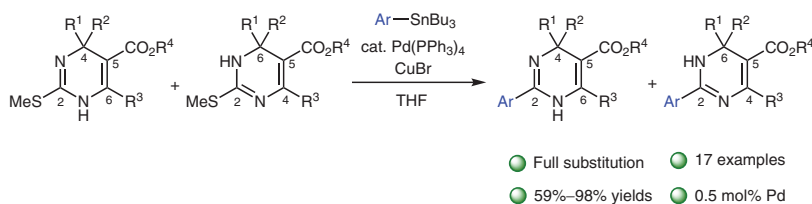
Y. Nishimura*
T. Kubo
N. Shibuya
H. Cho

Ohu University, Japan

Fully Substituted Dihydropyrimidines, Pentasubstituted 2-Aryldihydropyrimidines Synthesized by Palladium-Catalyzed/Copper-Mediated Cross-Coupling Reaction

Paper

1996



Synthesis

Synthesis 2023, 55, 2005–2010
DOI: 10.1055/a-2039-6180

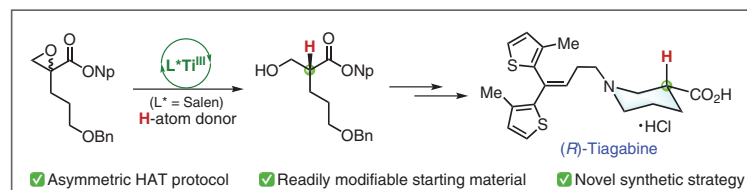
L. Li
W. Chen
Z. Xu
J. Jiang*
Y.-Q. Zhang*

Shandong University,
P. R. of China

Enantioselective Synthesis of (*R*)-Tiagabine via Asymmetric Hydrogen Atom Transfer Protocol

Paper

2005



Synthesis

Synthesis 2023, 55, 2011–2018
DOI: 10.1055/s-0042-1751433

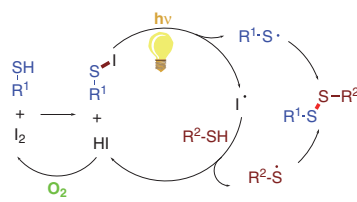
M.-Z. Ren
Y.-J. Fu
B.-S. Zhang
Z.-J. Quan*
X.-C. Wang*

Northwest Normal University,
P. R. of China

Visible-Light-Driven Iodine-Catalyzed Synthesis of Unsymmetrical Disulfides via Oxidative Coupling

Paper

2011



28 examples
up to 98% yields

- ✓ Catalytic amount of iodine
- ✓ metal and organic dyes-free
- ✓ Short reaction time
- ✓ Gram scale availability

R¹ = heteroarylthiophenols/arylthiophenols/alkylthiols

R² = arylthiophenols/alkylthiols

Synthesis

Synthesis 2023, 55, 2019–2026
DOI: 10.1055/a-2020-9005

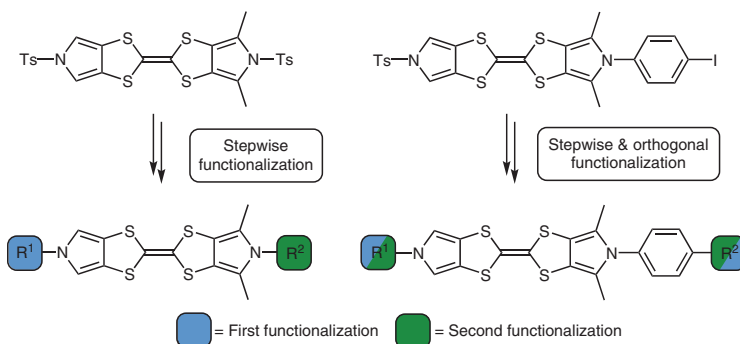
M. S. Neumann
J. O. Jeppesen*

University of Southern Denmark,
Denmark

Non-Symmetric Bispyrrolotetraathiafulvalene Building Blocks

Paper

2019



■ = First functionalization ■ = Second functionalization

Synthesis

Synthesis 2023, 55, 2027–2036
DOI: 10.1055/a-2031-4549

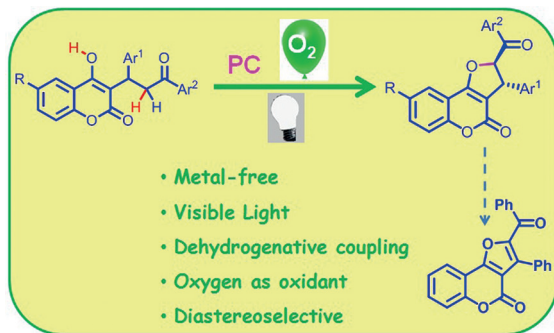
S. Das
S. Paul
T. Choudhuri
P. Sikdar
A. K. Bagdi*

University of Kalyani, India

Erythrosine B Catalyzed Synthesis of *trans*-Dihydro-4*H*-furo[3,2-*c*]-chromen-4-ones through Photocatalytic Dehydrogenative *sp*³ C–O Bond Formation

Paper

2027



- Metal-free
- Visible Light
- Dehydrogenative coupling
- Oxygen as oxidant
- Diastereoselective

Synthesis

Synthesis 2023, 55, 2037–2046
DOI: 10.1055/a-2019-1455

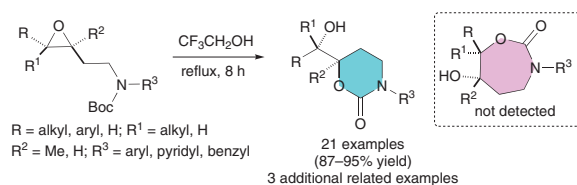
J. Das
R. Chouhan
H. Borgohain
B. J. Borah
S. K. Das*
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Trifluoroethanol-Mediated Cyclization of Two-Carbon-Tethered Epoxide–*N*-Boc Pairs: Completely Regioselective Synthesis of 3,6-Disubstituted 1,3-Oxazinan-2-ones

Paper

2037

6-*exo*-selective *N*-Boc-epoxide cyclization



- transition-metal-free reaction conditions
- easily accessible starting materials
- fully regio- and diastereoselective
- broad substrate scope and high yields
- no additional acid catalyst/promoter

Synthesis

Synthesis 2023, 55, 2047–2052
DOI: 10.1055/a-2016-4548

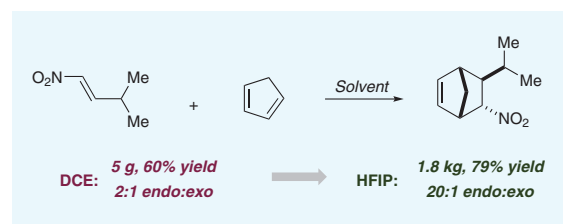
D. J. Kornfilt
B. T. Chamberlain
I. Chataigner
R. Spezia
F. F. Wagner*

Broad Institute of MIT and Harvard, USA

Hexafluoroisopropanol-Induced Facial Selectivity in a Hindered Diels–Alder Reaction

Paper

2047



Synthesis

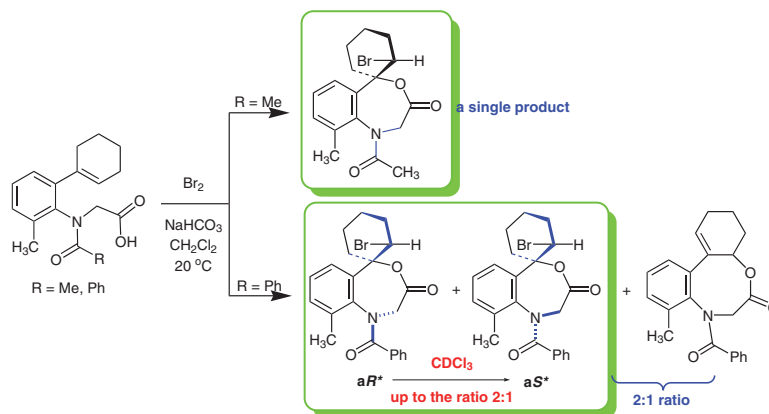
Synthesis 2023, 55, 2053–2060
DOI: 10.1055/s-0042-1751427

R. R. Gataullin*
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Halolactonization of *N*-Acyl-*N*-(2-cyclohex-1-en-1-yl-6-methylphenyl)-glycines: Towards Production of 4,1-Benzoxazoheterocycles

Paper

2053



Synthesis

Synthesis 2023, 55, 2061–2069
DOI: 10.1055/a-2016-4337

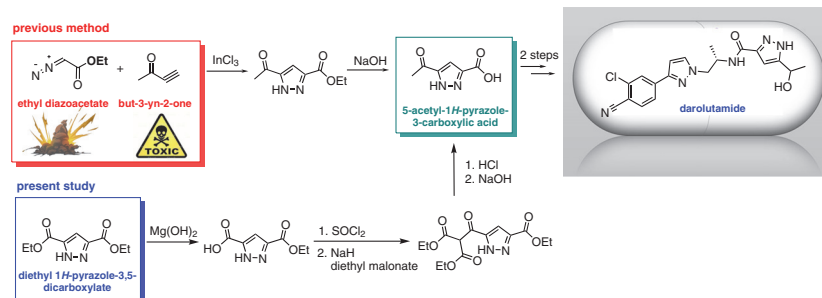
L. Poszvácz
T. Nagy
K. Kátai-Fadgyas
B. Volk*

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New, Scalable Process for the Preparation of 5-Acetyl-1H-pyrazole-3-carboxylic Acid, a Key Intermediate of Darolutamide

Paper

2061



Synthesis

Synthesis 2023, 55, 2070–2082
DOI: 10.1055/a-2022-2206

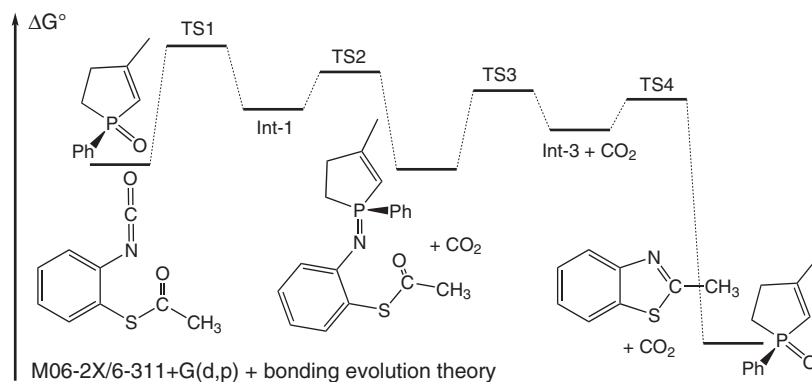
A. I. Adjieufack*
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Cameroon

Investigating the Mechanism of the Catalytic Intramolecular Aza-Wittig Reaction Involved in the Synthesis of 2-Methylbenzothiazole from the Perspective of Bonding Evolution Theory

Paper

2070



Synthesis

Synthesis 2023, 55, 2083–2090
DOI: 10.1055/a-2017-4685

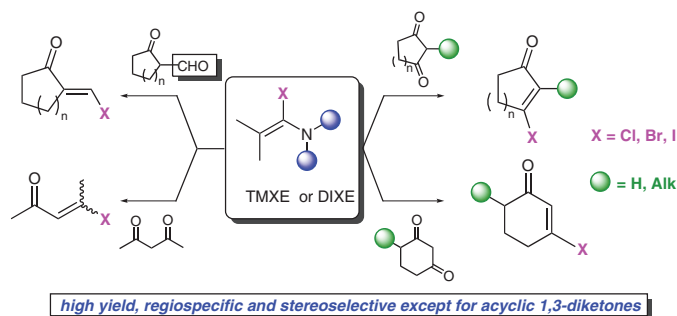
F. Munyemana
L. Ghosez*

UCLouvain, Belgium
Univ. Bordeaux, France

A Mild Method for the Replacement of a Hydroxyl Group by Halogen: 4. Practical Synthesis of Cyclic β -Halovinylketones under Neutral Conditions

Paper

2083



Synthesis

Synthesis 2023, 55, 2091–2098
DOI: 10.1055/a-2035-2873

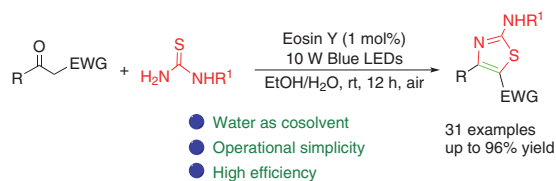
R. Zheng
X. Hu
H. Jiang
H. Guo*
L. Wang*

Taizhou University, P. R. of China

Visible-Light-Promoted C(sp³)-H Bond Functionalization toward Aminothiazole Skeletons from Active Methylene Ketones and Thioureas

Paper

2091



Synthesis

Synthesis 2023, 55, 2099–2108
DOI: 10.1055/a-2023-0028

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pital of Shenzhen University
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Derivatization of Dihydropyrrolidone-Thiadiazole Heterocyclic Compounds and an Evaluation of their Antibacterial and Anti-Biofilm Activities

Paper

2099

