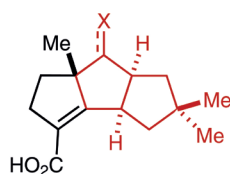


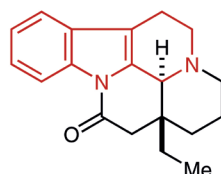
# Synthesis

Reviews and Full Papers in Chemical Synthesis

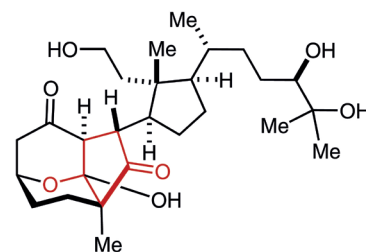
July 4, 2023 • Vol. 55, 1949–2108



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



*(-)-20-epi-eburnamonine*



*alypsiasesterol 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

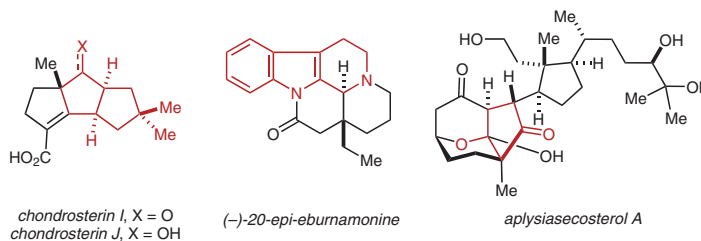
*Synthesis* 2023, 55, 1949–1960  
DOI: 10.1055/a-1702-5062

L. Cala  
M. A. Gaviria  
S. L. Kim  
T. R. Vogel  
C. S. Schindler\*  
University of Michigan, USA

## Recognition of Symmetry as a Powerful Tool in Natural Product Synthesis

Short Review

1949



## Synthesis

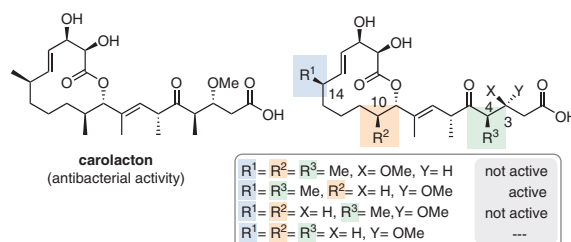
*Synthesis* 2023, 55, 1961–1983  
DOI: 10.1055/a-2013-9333

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

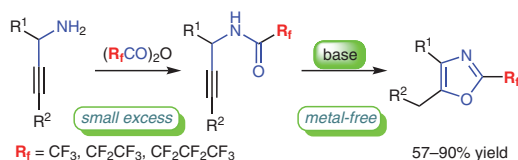
T. Sugiishi  
R. Motegi  
H. Amii\*

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

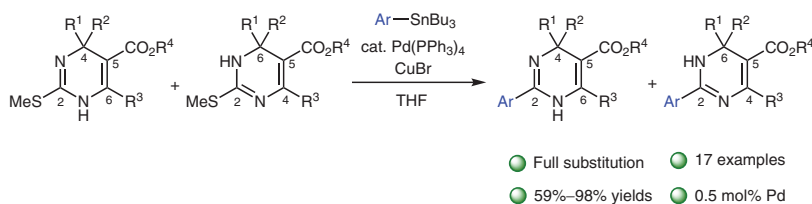
Y. Nishimura\*  
T. Kubo  
N. Shibuya  
H. Cho

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

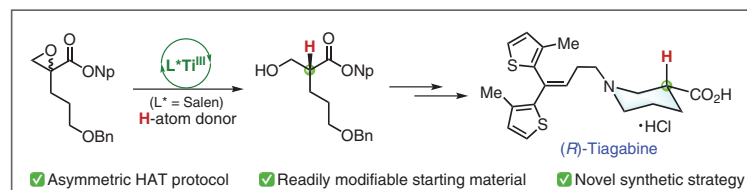
L. Li  
W. Chen  
Z. Xu  
J. Jiang\*  
Y.-Q. Zhang\*

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

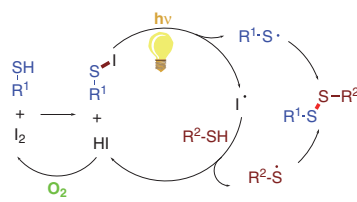
M.-Z. Ren  
Y.-J. Fu  
B.-S. Zhang  
Z.-J. Quan\*  
X.-C. Wang\*

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

R<sup>1</sup> = heteroarylthiophenols/arylthiophenols/alkylthiols  
R<sup>2</sup> = arylthiophenols/alkylthiols

## Synthesis

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

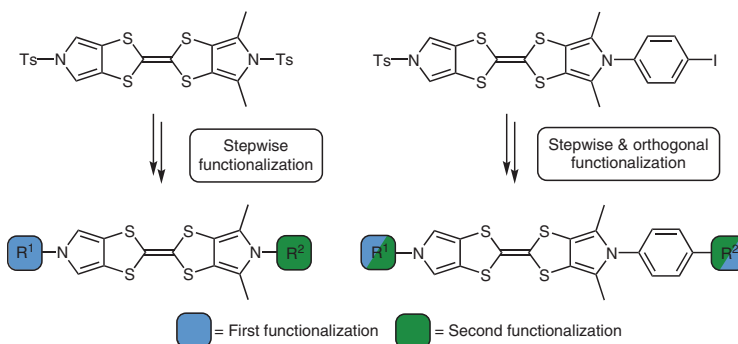
M. S. Neumann  
J. O. Jeppesen\*

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

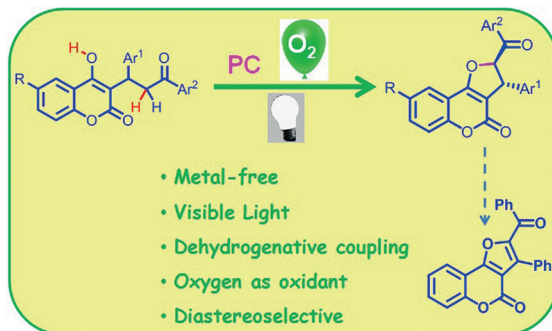
S. Das  
S. Paul  
T. Choudhuri  
P. Sikdar  
A. K. Bagdi\*

University of Kalyani, India

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

Paper

2027



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

## Synthesis

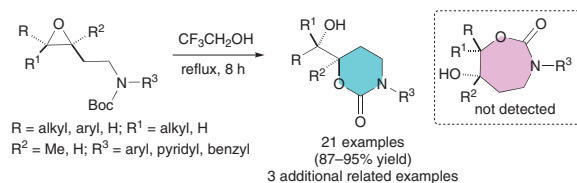
Synthesis 2023, 55, 2037–2046  
DOI: 10.1055/a-2019-1455

J. Das  
R. Chouhan  
H. Borgohain  
B. J. Borah  
S. K. Das\*  
Tezpur University, India

### 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

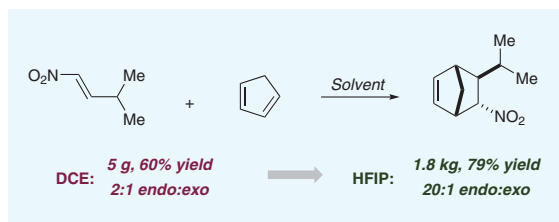
Synthesis 2023, 55, 2047–2052  
DOI: 10.1055/a-2016-4548

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



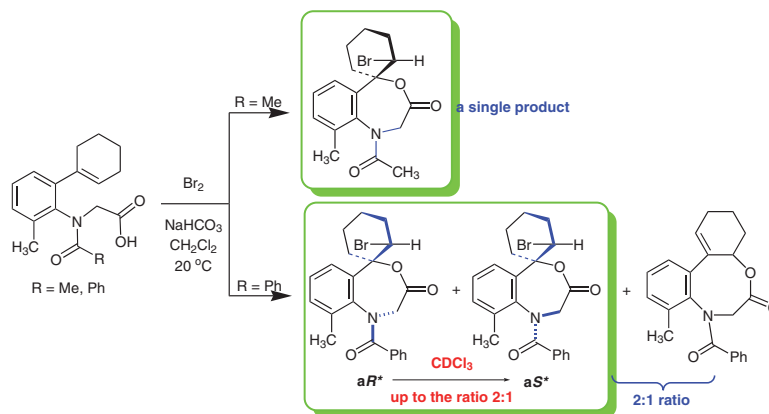
## Synthesis

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

R. R. Gataullin\*  
Ufa Institute of Chemistry of the Russian Academy of Sciences, Russian Federation

### 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

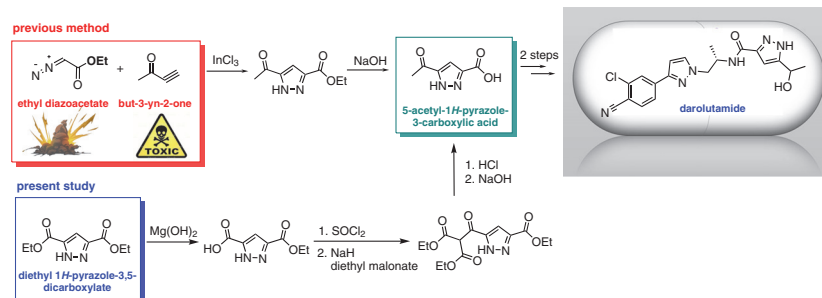
L. Poszvácz  
T. Nagy  
K. Kátai-Fadgyas  
B. Volk\*

Egis Pharmaceuticals Plc.,  
Hungary

## 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

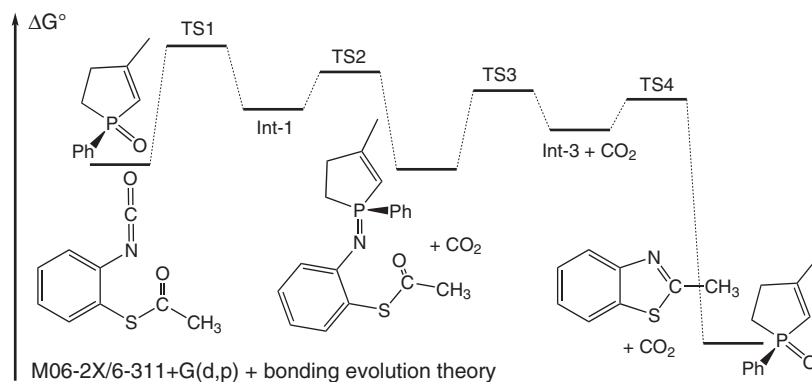
A. I. Adjieufack\*  
B. Champagne\*  
V. Liégeois\*

University of Namur, Belgium  
University of Yaoundé 1,  
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

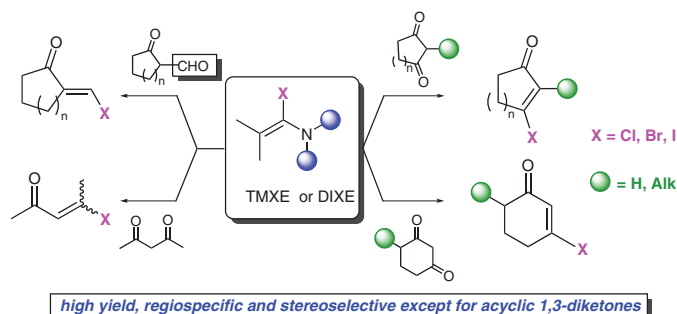
Synthesis 2023, 55, 2083–2090  
DOI: 10.1055/a-2017-4685

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 $\beta$ -Halovinylketones under Neutral Conditions

Paper

2083



## Synthesis

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

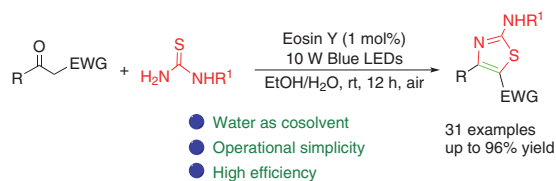
R. Zheng  
X. Hu  
H. Jiang  
H. Guo\*  
L. Wang\*

Taizhou University, P. R. of China

## Visible-Light-Promoted C(sp<sup>3</sup>)-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

C. Xuecheng  
X. Yanpeng  
L. Yue  
P. Yalan  
C. Zhong  
Y. Zhijian\*  
H. Shiqing\*

Nanjing Tech University,  
P. R. of China  
Shenzhen Nanshan People's  
Hospital, the 6th Affiliated Hos-  
pital of Shenzhen University  
Medical School, P. R. of China

## Derivatization of Dihydropyrrolidone-Thiadiazole Heterocyclic Compounds and an Evaluation of their Antibacterial and Anti-Biofilm Activities

Paper

2099

