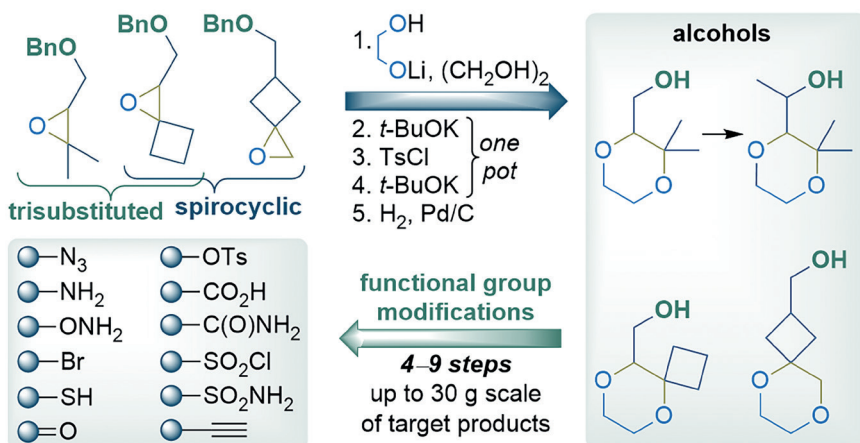


Synthesis

Reviews and Full Papers in Chemical Synthesis

October 18, 2023 • Vol. 55, 3209–3414



Synthesis of 2,2-Disubstituted and 2,2,3-Trisubstituted 1,4-Dioxane-Derived Building Blocks

A. V. Bondarenko, Y. K. Kozyriev, B. V. Vashchenko, O. O. Grygorenko

20

Synthesis

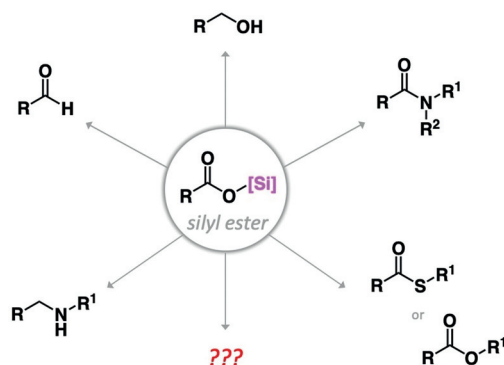
Silyl Esters as Reactive Intermediates in Organic Synthesis

Review

3209

Synthesis 2023, 55, 3209–3238
DOI: 10.1055/a-2083-8591

M. C. D'Amaral
K. G. Andrews
R. Denton
M. J. Adler*
Toronto Metropolitan University,
Canada



Synthesis

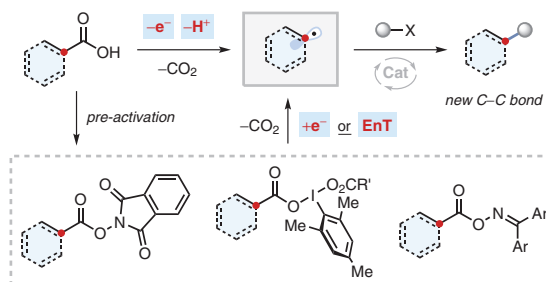
Decarboxylative, Radical C–C Bond Formation with Alkyl or Aryl Carboxylic Acids: Recent Advances

Short Review

OPEN ACCESS 3239

Synthesis 2023, 55, 3239–3250
DOI: 10.1055/a-2081-1830

J. D. Tibbetts*
H. E. Askey
Q. Cao
J. D. Grayson
S. L. Hobson
G. D. Johnson
J. C. Turner-Dore
A. J. Cresswell*
University of Bath, UK



Synthesis

Synthesis 2023, 55, 3251–3262
DOI: 10.1055/a-2111-2333

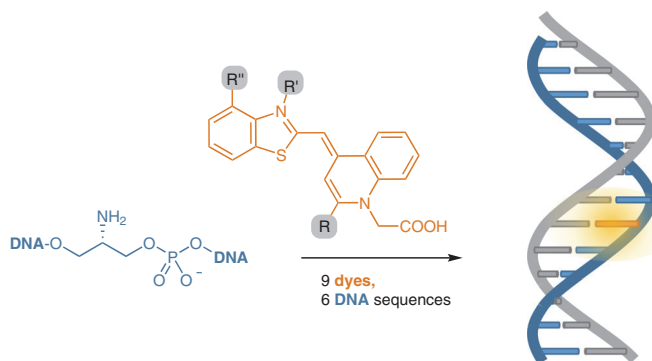
A. Homer
O. Seitz*

Humboldt-Universität zu Berlin,
Germany

New Thiazole Orange Derivatives for Improved Fluorescence Signaling of DNA FIT Probes

Feature

3251



Synthesis

Synthesis 2023, 55, 3263–3271
DOI: 10.1055/s-2086-3015

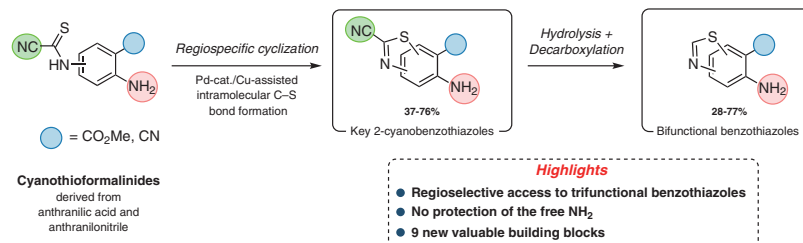
N. Broudic
A. Pacheco-Benichou
C. Fruit
T. Besson*

Univ Rouen Normandie, France

Synthesis of Trifunctional Thiazole-Fused Anthranilonitrile and Anthranilic Acid Derivatives

PSP

3263



Synthesis

Synthesis 2023, 55, 3272–3280
DOI: 10.1055/s-0042-1751976

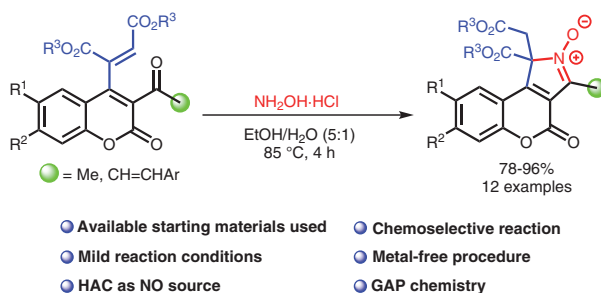
A. Alizadeh*
A. Rostampoor
H. Hasanpour

Tarbiat Modares University, Iran

Green Synthesis of Five-Membered Hetarene N-Oxides: A Designed Approach to the Synthesis of Substituted Chromeno[3,4-c]pyrrole-2-oxides

Paper

3272



Synthesis

Synthesis 2023, 55, 3281–3288
DOI: 10.1055/a-2116-5517

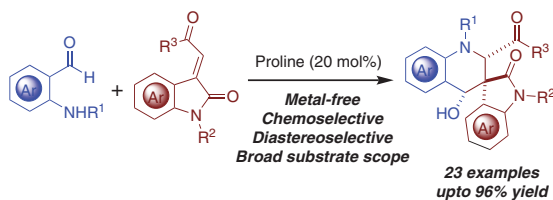
D. Enagandhula
R. Adepú*
P. S. Mainkar*

CSIR-Indian Institute of Chemical
Technology, India
Academy of Scientific and Inno-
vative Research (AcSIR), India

Proline-Catalyzed Diastereoselective Synthesis of Dihydroquinolinyl-Spirooxindole via Aza-Michael/Aldol Reaction

Paper

3281



Synthesis

Synthesis 2023, 55, 3289–3296
DOI: 10.1055/a-2093-3333

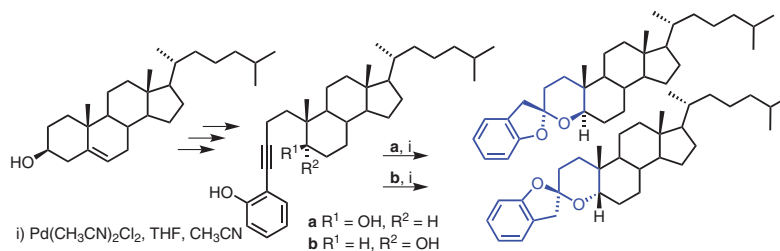
W. H. García-Santos
A. M. Quiroz-Mendoza
M. C. Mayorquín-Torres
M. Flores-Álamo
M. A. Iglesias-Arteaga*

Universidad Nacional Autónoma
de México, México

Palladium-Catalyzed Synthesis of Benzofuran Spiroketal Derived from Cholesterol; NMR and X-ray Characterization

Paper

3289



Synthesis

Synthesis 2023, 55, 3297–3302
DOI: 10.1055/s-0041-1738443

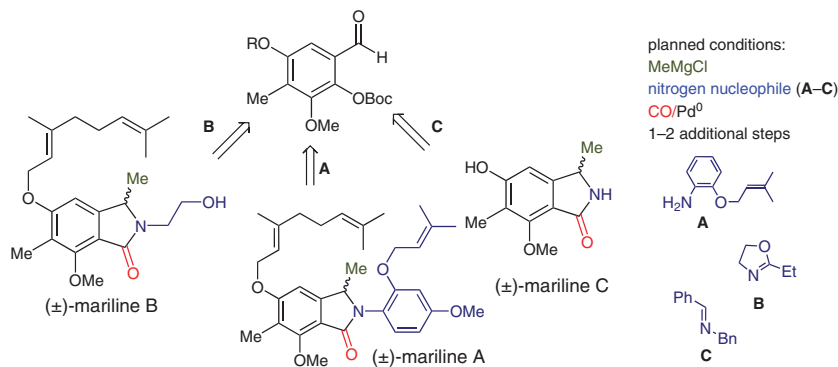
Y. F. Wong
T. R. Pettus*

University of California at Santa
Barbara, USA

Synthesis of Naturally Racemic Marilines B & C through Multicomponent Reactions Involving *ortho*-Quinone Methides and Various Nitrogen Nucleophiles

Paper

3297



Synthesis

Synthesis 2023, 55, 3303–3314
DOI: 10.1055/a-2116-5206

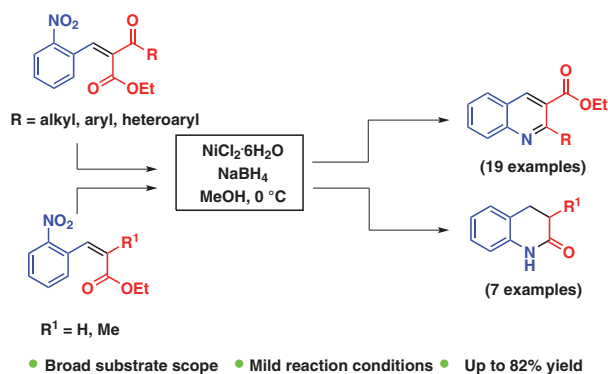
R. Sarkar
S. K. Samanta
A. M. Menon
D. Chopra
D. Ganguly
M. K. Bera*

Indian Institute of Engineering
Science and Technology (IIEST),
Shibpur, India

Synthesis of Quinoline and Quinolin-2(1H)-one Derivatives via Nickel Boride Promoted Reductive Cyclization

Paper

3303



Synthesis

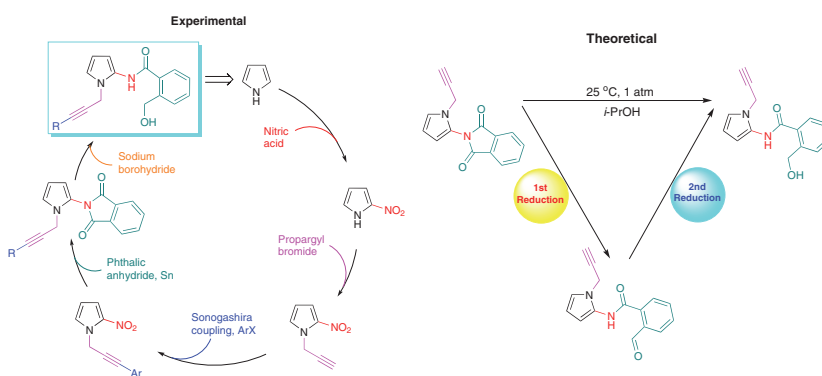
Synthesis 2023, 55, 3315–3328
DOI: 10.1055/s-0042-1751483

S. Basceken*
Hitit University, Turkey

Synthesis of *N*-Propargyl Pyrrolylamides and Theoretical Study of Pyrrolylimide Reduction by NaBH_4

Paper

3315



Synthesis

Synthesis 2023, 55, 3329–3341
DOI: 10.1055/s-0041-1738447

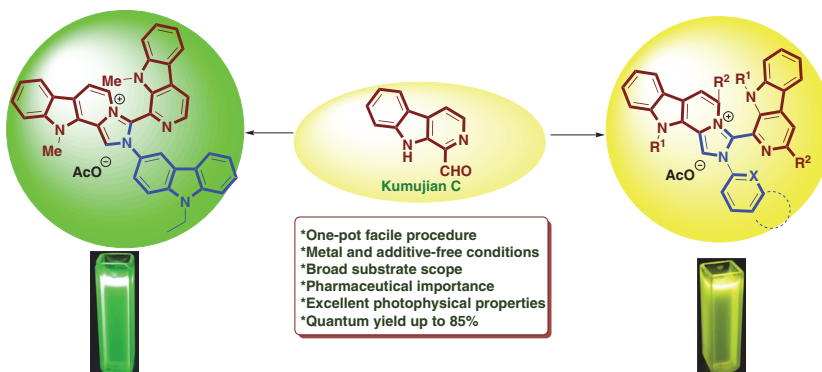
M. Singh
Vaishali
Deepika
Jyoti
S. Sharma
N. Banyal
P. Kumar
B. Budhalakoti
C. C. Malakar
V. Singh*

Dr B R Ambedkar National Institute of
Technology (NIT) Jalandhar,
India
Central University of Punjab,
India

Transition-Metal-Free Cascade C–N Bond Formation: An Effective Strategy for the Synthesis of β -Carboline *N*-Fused Imidazolium Acetates and Estimation of their Light-Emitting Properties

Paper

3329



Synthesis

Synthesis 2023, 55, 3342–3348
DOI: 10.1055/a-2131-0116

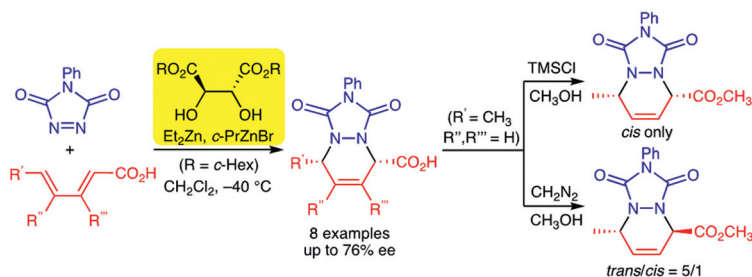
Y. Sato
T. Ukei
H. Tsugeno
T. Suga
T. Soeta
Y. Ukaji*

Kanazawa University, Japan

Asymmetric Hetero-Diels–Alder Reaction of 4-Phenyl-1,2,4-triazole-3,5-dione with 2,4-Dienyl Carboxylic Acids

Paper

3342



Synthesis

Synthesis 2023, 55, 3349–3363
DOI: 10.1055/a-2105-2774

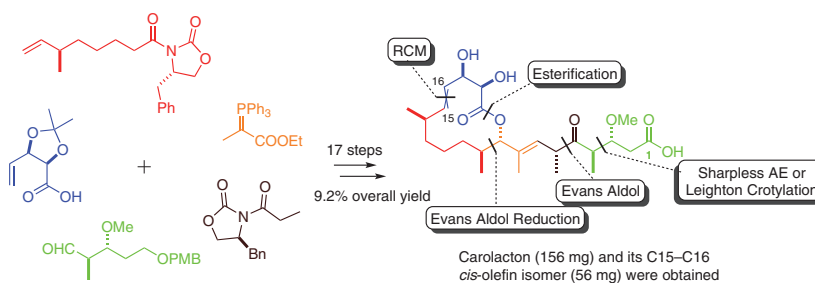
C.-C. Bian
Y.-Q. Li
H.-r. Yang
X.-M. Yu*

Peking Union Medical College
& Chinese Academy of Medical
Sciences, P. R. of China

Scalable, Stereocontrolled, Total Synthesis of Carolacton

Paper

3349



Synthesis

Synthesis 2023, 55, 3364–3372
DOI: 10.1055/a-2147-2620

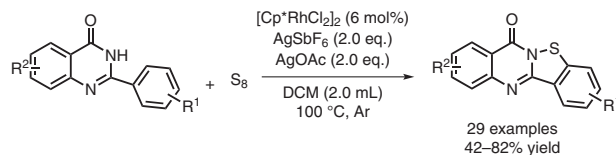
X. Zhang
Q. Wu
Q. Yang
Y. Fu
Y. Peng*

Jiangxi Normal University,
P. R. of China

Rhodium-Catalyzed C–H Activation of 2-Arylquinazolinones and Cyclization with Elemental Sulfur *via* C–S/N Bond Formation to Access 7*H*-Benzo[4,5]isothiazolo[3,2-*b*]quinazolinones

Paper

3364



Synthesis

Synthesis 2023, 55, 3373–3381
DOI: 10.1055/s-0041-1738449

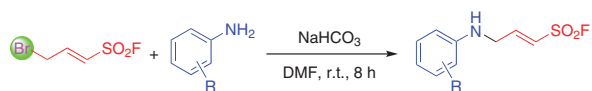
X.-F. Tao
H.-L. Qin*

Wuhan University of Technology,
P. R. of China

A General Protocol for the Chemo- and Stereoselective Construction of α,β -Unsaturated γ -Amino Sulfonyl Fluorides

Paper

3373



23 examples, up to 90% yield

- ★ Easy work-up
- ★ Gram-scale
- ★ Broad functional group compatibility
- ★ Mild conditions
- ★ Drug modification
- ★ Excellent chemo- and stereoselectivity

Synthesis

Synthesis 2023, 55, 3382–3392
DOI: 10.1055/a-2109-1419

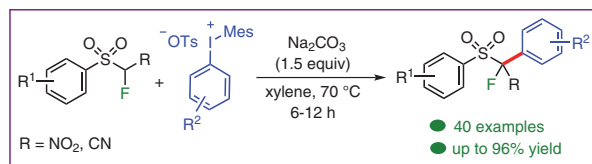
M. K. Zaheer
N. K. Vaishnav
A. Kumar
S. Mishra
R. Kant
K. Mohanan*

CSIR-Central Drug Research In-
stitute, India

Efficient α -Arylation of α -Fluoro- α -nitrosulfonylmethanes Employing Diaryliodonium Salts

Paper

3382



Synthesis

Synthesis 2023, 55, 3393–3401
DOI: 10.1055/a-2096-4223

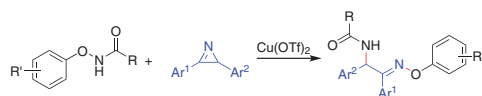
Y.-L. Zhu*
J. Yan
X.-X. Xu
Z.-Y. Sun
J. Chen*

Heze University, P. R. China
Northwest University, P. R. China

Copper-Catalyzed Coupling of *N*-Phenoxyacetamides and 2*H*-Azirines for Synthesis of α -Amino Oxime Ethers

Paper

3393



- Mild reaction conditions
- High atom economy
- High regioselectivity
- 30 examples
- Up to 86% yield

Synthesis 2023, 55, 3402–3414
DOI: 10.1055/a-2092-9205

A. V. Bondarenko
Y. K. Kozyriev
B. V. Vashchenko*
O. O. Grygorenko
Enamine Ltd., Ukraine

