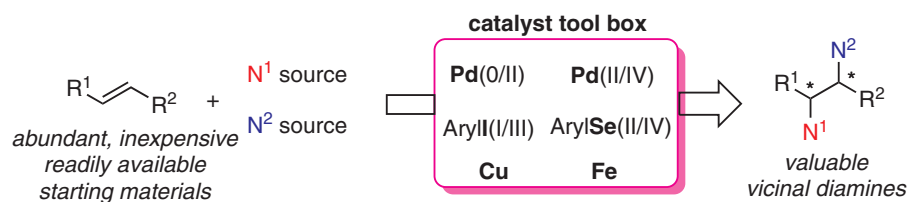


Synthesis

Reviews and Full Papers in Chemical Synthesis

November 3, 2021 • Vol. 53, 3869–4130



Catalytic, Enantioselective Diamination of Alkenes

Z.-L. Tao, S. E. Denmark

21

Synthesis

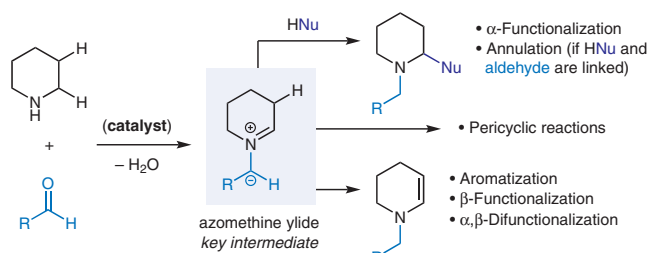
Synthesis 2021, 53, 3869–3908
DOI: 10.1055/a-1631-2140

W. Chen
D. Seidel*
University of Florida, USA

Condensation-Based Methods for the C–H Bond Functionalization of Amines

Review

3869



Synthesis

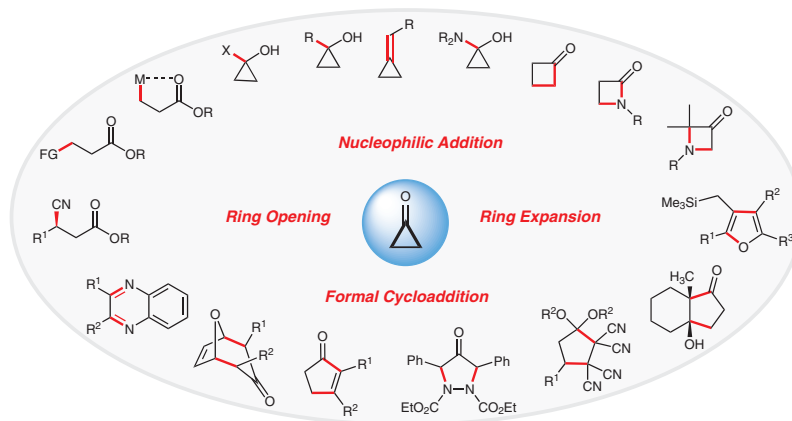
Synthesis 2021, 53, 3909–3934
DOI: 10.1055/a-1519-1670

Y. Jang
R. Machín-Rivera
V. N. G. Lindsay*
North Carolina State University,
USA

Synthesis and Applications of Cyclopropanones and Their Equivalents as Three-Carbon Building Blocks in Organic Synthesis

Review

3909



Synthesis

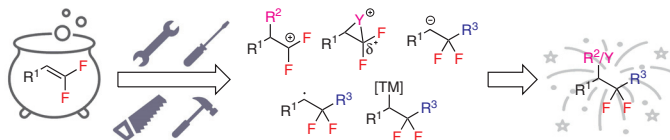
Synthesis 2021, 53, 3935–3950
DOI: 10.1055/a-1547-9270

J. P. Sorrentino
R. A. Altman*
Purdue University, USA

Fluorine-Retentive Strategies for the Functionalization of *gem*-Difluoroalkenes

Short Review

3935



Synthesis

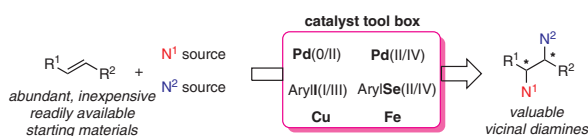
Synthesis 2021, 53, 3951–3962
DOI: 10.1055/s-0040-1719822

Z.-L. Tao
S. E. Denmark*
University of Illinois, USA

Catalytic, Enantioselective Diamination of Alkenes

Short Review

3951



Synthesis

Synthesis 2021, 53, 3963–3976
DOI: 10.1055/a-1541-1761

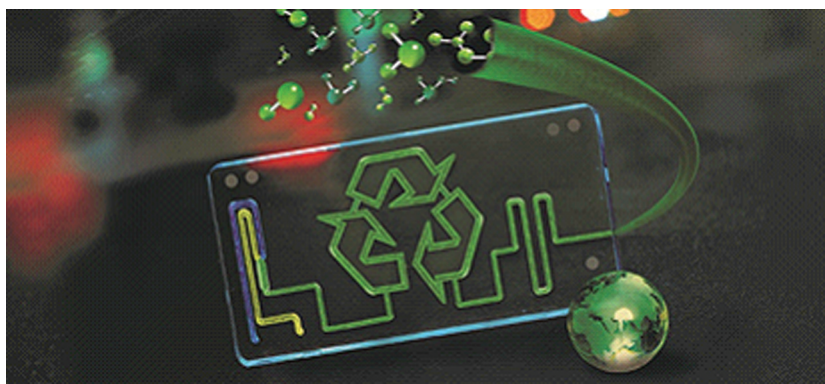
M. Baumann*
T. S. Moody
M. Smyth*
S. Wharry
University College Dublin,
Ireland
Almac Sciences Ltd., UK

Evaluating the Green Credentials of Flow Chemistry towards Industrial Applications

Short Review

OPEN ACCESS

3963



Synthesis

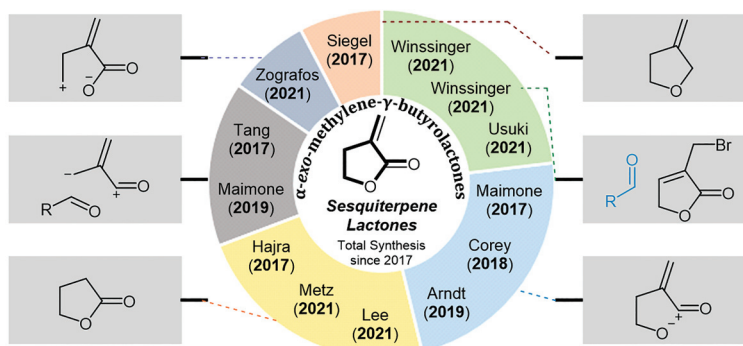
Synthesis 2021, 53, 3977–3990
DOI: 10.1055/a-1577-6085

W. Liu*
N. Winssinger*
University of Geneva,
Switzerland

Synthesis of α -exo-Methylene- γ -butyrolactones: Recent Developments and Applications in Natural Product Synthesis

Short Review

3977



Synthesis

Synthesis 2021, 53, 3991–4003
DOI: 10.1055/a-1535-3215

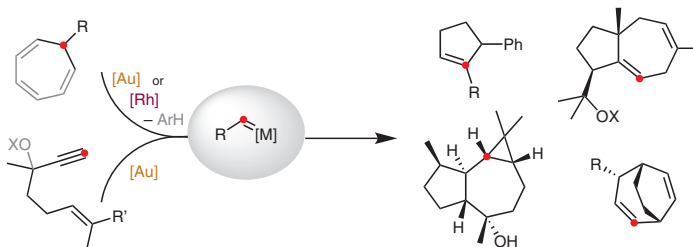
H. Armengol-Relats
M. Mato
I. Escofet
A. M. Echavarren*
Institute of Chemical Research of
Catalonia (ICIQ), Spain
Universitat Rovira i Virgili, Spain

Assembling Complex Structures through Cascade and Cycloaddition Processes via Non-Acceptor Gold or Rhodium Carbenes

Short Review

OPEN ACCESS

3991



Synthesis

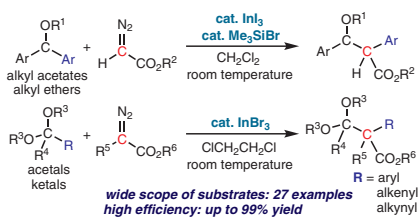
Synthesis 2021, 53, 4004–4019
DOI: 10.1055/a-1523-1551

F. Wang
J. Yi
Y. Nishimoto*
M. Yasuda*
Osaka University, Japan

Homologation of Alkyl Acetates, Alkyl Ethers, Acetals, and Ketals by Formal Insertion of Diazo Compounds into a Carbon–Carbon Bond

Feature

4004



Synthesis

Synthesis 2021, 53, 4020–4029
DOI: 10.1055/a-1526-7917

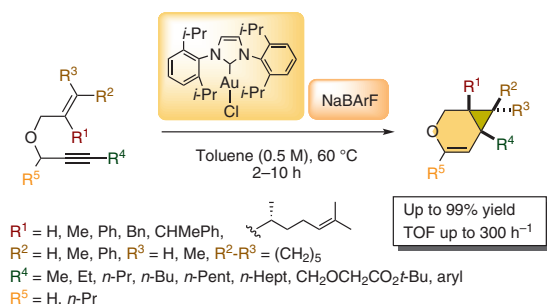
R. Laher
E. Gentilini
C. Marin
V. Michelet*

University Côte d'Azur, France

Oxygen-Tethered 1,6-Enynes and [4.1.0]-Bicyclic Ether Skeletons as Hedonic Materials for the Fragrance Industry

Feature

4020



Synthesis

Synthesis 2021, 53, 4030–4041
DOI: 10.1055/a-1526-7839

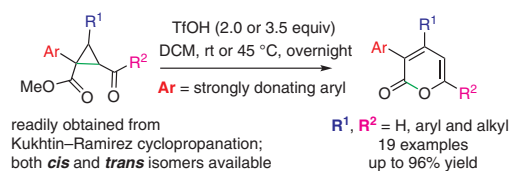
J. Shao
C. An
S. R. Wang*

East China Normal University,
P. R. of China

Facile Synthesis of Polysubstituted 2-Pyrones via TfOH-Mediated Ring Expansion of 2-Acylcyclopropane-1-carboxylates

Feature

4030



Synthesis

Synthesis 2021, 53, 4042–4047
DOI: 10.1055/a-1543-4018

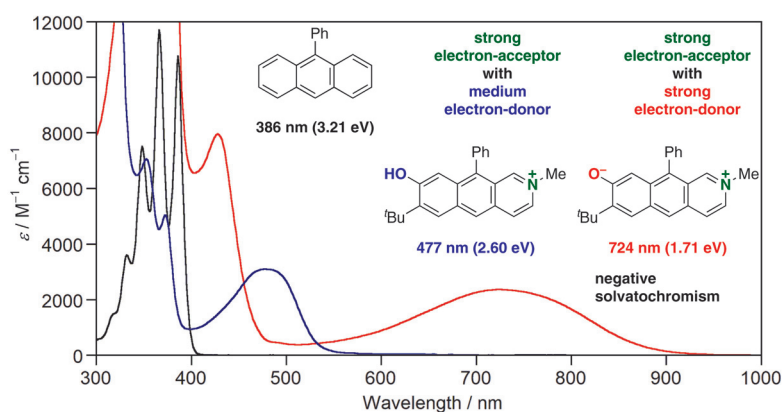
A. Kayama
A. Shimizu*
R. Shintani*

Osaka University, Japan

Anthracene-Based Zwitterion with a Small HOMO–LUMO Energy Gap

Feature

4042



Synthesis

Synthesis 2021, 53, 4048–4058
DOI: 10.1055/s-0037-1610778

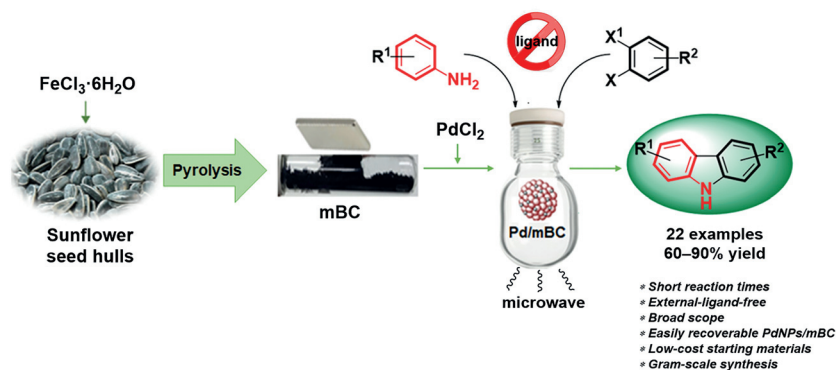
H. S. Steingruber
P. Mendioroz
M. A. Volpe
D. C. Gerbino*

Universidad Nacional del Sur,
Argentina

Convenient One-Pot Synthesis of 9H-Carbazoles by Microwave Irradiation Employing a Green Palladium-Based Nanocatalyst

Paper

4048



Synthesis

Synthesis 2021, 53, 4059–4067
DOI: 10.1055/s-0040-1706049

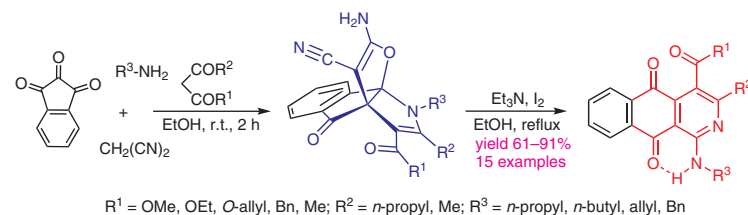
A. Alizadeh*
A. Bagherinejad
M. Khanpour

Tarbiat Modares University, Iran

Molecular Iodine-Mediated Synthesis of 2-Azaanthraquinones from [3.3.3]Propellanes via a Metal-Free Rearrangement

Paper

4059



- Redox-Mediated Rearrangement
- Classical Imine/Amide Exchange
- Efficient and Short Reactions
- Easily Accessible Substrates
- C–O, C–N, C–C Bond Dissociation
- C–C, C–N Bond Formation

Synthesis

Synthesis 2021, 53, 4068–4074
DOI: 10.1055/a-1534-0624

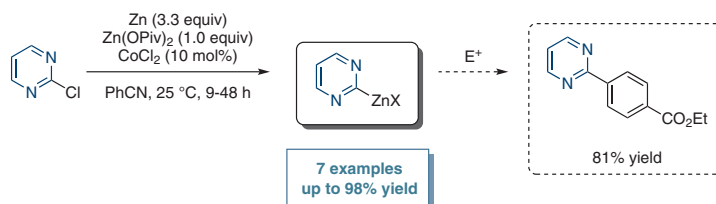
A. Kremsmair
S. Graßl
C. J. B. Seifert
E. Godineau
P. Knochel*

Ludwig Maximilians-Universität
München, Germany

Cobalt-Catalyzed Preparation of N-Heterocyclic Organozinc Reagents from the Corresponding Heteroaryl Chlorides

Paper

4068



Synthesis

A Practical and Efficient Conversion of Luteolin into Luteoloside

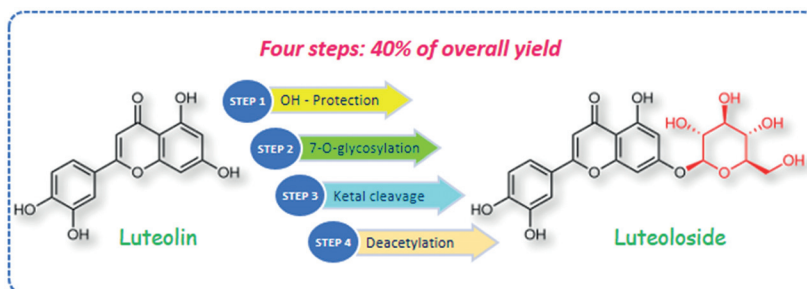
Paper

4075

Synthesis 2021, 53, 4075–4078
DOI: 10.1055/a-1531-2385

B. Bassetti
R. Ballini
D. Ciceri
P. Allegrini
A. Palmieri*

University of Camerino, Italy



Synthesis

Synthesis of (Hetero)Aryl-Functionalized Azaindoline Derivatives by Palladium-Catalyzed Domino Heck Cyclization/Hiyama Cross-Coupling

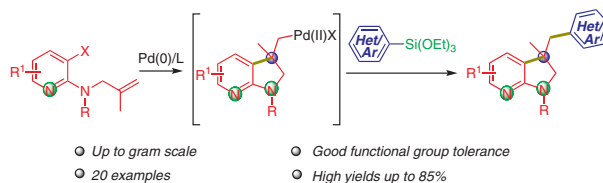
Paper

4079

Synthesis 2021, 53, 4079–4085
DOI: 10.1055/a-1542-4258

H. Ye
R. Zhang
X. Xia
Y. Ding
M. Sun
L. Shi
G. Jiang
X.-X. Wu*

Nantong University,
P. R. of China



Synthesis

Direct and Efficient Synthesis of Sulfonium Acyl Sulfonylmethylide Ylides from Acetylenic Sulfones and Dimethyl Sulfoxide

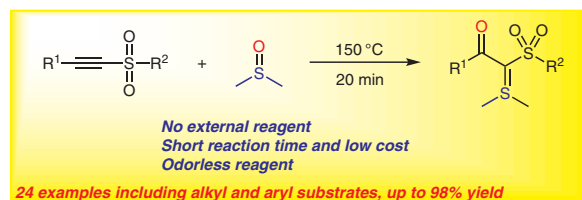
Paper

4086

Synthesis 2021, 53, 4086–4096
DOI: 10.1055/a-1541-6271

D. Fu
J. Wang
J. Xu*

Beijing University of Chemical
Technology, P. R. of China



Synthesis

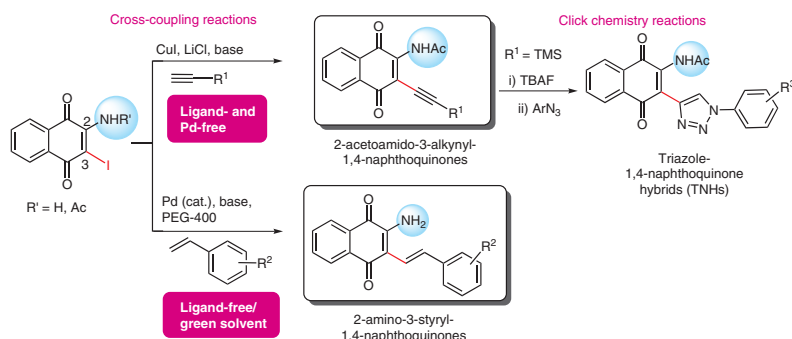
Synthesis 2021, 53, 4097–4109
DOI: 10.1055/s-0037-1610781

F. C. Demidoff
E. J. P. Rodrigues Filho
A. L. F. de Souza
C. D. Netto
L. L. de Carvalho

Federal University of Rio de Janeiro–Campus Macaé, Brazil

Cross-Coupling Reactions with 2-Amino-/Acetylamino-Substituted 3-Iodo-1,4-naphthoquinones: Convenient Synthesis of Novel Alkenyl- and Alkynyl-naphthoquinones and Derivatives

Paper
4097



Synthesis

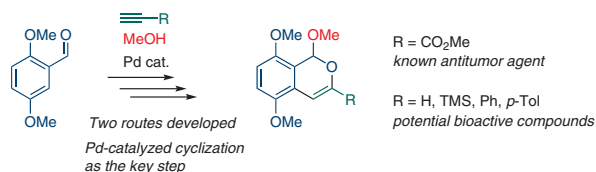
Synthesis 2021, 53, 4110–4116
DOI: 10.1055/a-1532-8656

N. Nardangeli
J. Thomson
N. Topolovčan*
T. Hudlický*

Brock University, Canada
Ruder Bošković Institute, Croatia

Total Synthesis of Methyl 1,5,8-Trimethoxy-1*H*-isochromene-3-carboxylate and Its Derivatives via Palladium-Catalyzed Annulation of 2-Alkynylbenzaldehydes

Paper
4110



Synthesis

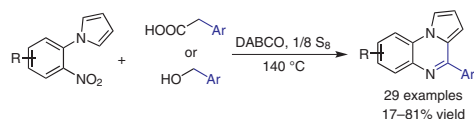
Synthesis 2021, 53, 4117–4123
DOI: 10.1055/a-1534-0466

T. H. Ho
N. T. A. Phan
T. T. C. Ho
D. L. M. Tran
T. T. Nguyen*
N. T. S. Phan*

Ho Chi Minh City University of Technology (HCMUT), Viet Nam
Viet Nam National University Ho Chi Minh City, Viet Nam

Elemental Sulfur Mediated Synthesis of Pyrrolo[1,2-*a*]quinoxalines from 1-(2-Nitroaryl)pyrroles

Paper
4117



Synthesis 2021, 53, 4124–4130
DOI: 10.1055/a-1531-2248

A. K. Dhiman
R. Kumar
U. Sharma*

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

