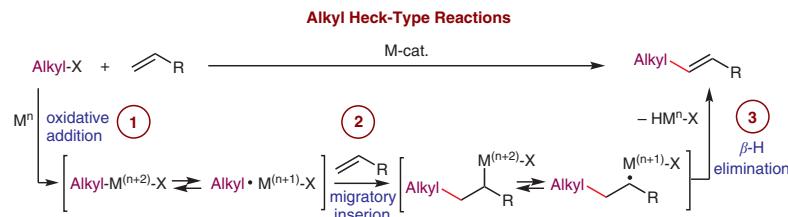


Synthesis
Transition-Metal-Catalyzed Alkyl Heck-Type Reactions
Review

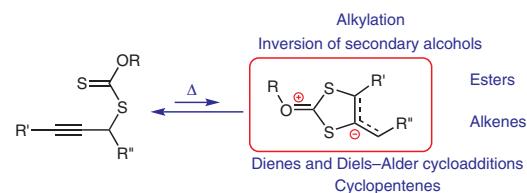
985

Synthesis 2019, 51, 985–1005
DOI: 10.1055/s-0037-1611659

D. Kurandina
P. Chuentragool
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Synthesis
Sulfur Betaines from S-Propargyl Xanthates. Unusual Chemistry from a Simple Functional Group
Short Review

1006

Synthesis 2019, 51, 1006–1020
DOI: 10.1055/s-0037-1611638

S. Z. Zard*
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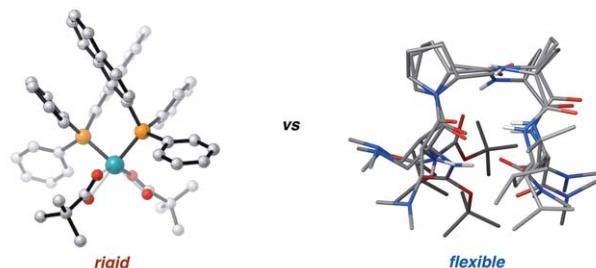
Synthesis

Synthesis 2019, 51, 1021–1036
DOI: 10.1055/s-0037-1611636

J. M. Crawford
M. S. Sigman*
University of Utah, USA

Conformational Dynamics in Asymmetric Catalysis: Is Catalyst Flexibility a Design Element?**Short Review**

1021



Rigidity is not a required design element for highly selective asymmetric catalysts

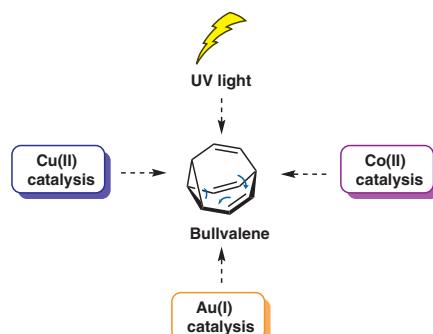
Synthesis

Synthesis 2019, 51, 1037–1048
DOI: 10.1055/s-0037-1611637

S. Ferrer
A. M. Echavarren*
Institute of Chemical Research of Catalonia (ICIQ), Spain
Universitat Rovira i Virgili, Spain

Synthesis of Bullvalenes: Classical Approaches and Recent Developments**Short Review**

1037

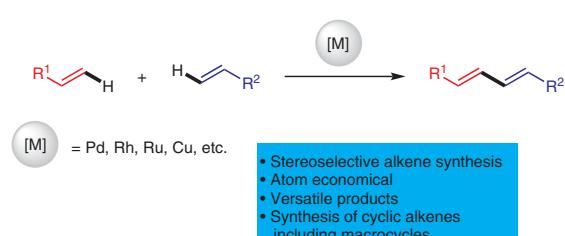
**Synthesis**

Synthesis 2019, 51, 1049–1062
DOI: 10.1055/s-0037-1611649

M. Maraswami
T.-P. Loh*
Nanyang Technological University, Singapore
Nanjing Tech University, P. R. of China
University of Science and Technology of China, P. R. of China

Transition-Metal-Catalyzed Alkenyl sp² C–H Activation: A Short Account**Short Review**

1049



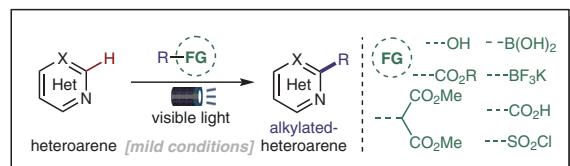
Synthesis

Synthesis 2019, 51, 1063–1072
DOI: 10.1055/s-0037-1611658

A. C. Sun
R. C. McAtee
E. J. McClain
C. R. J. Stephenson*
University of Michigan, USA

Advancements in Visible-Light-Enabled Radical C(sp)²-H Alkylation of (Hetero)arenes**Short Review**

1063

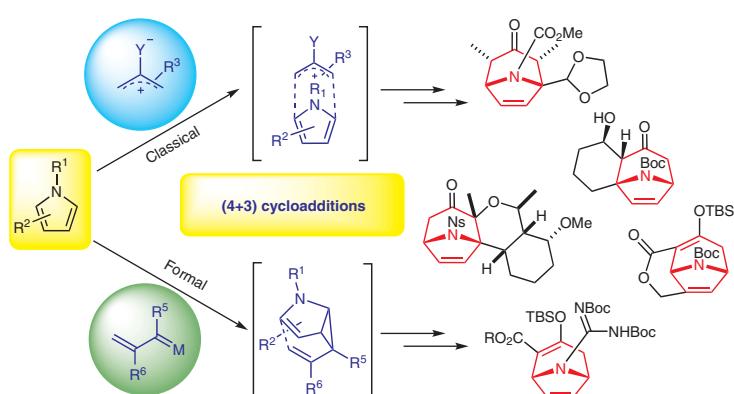
**Synthesis**

Synthesis 2019, 51, 1073–1086
DOI: 10.1055/s-0037-1611660

F. Hu
J. P. L. Ng
P. Chiu*
The University of Hong Kong,
P. R. of China

Pyrroles as Dienes in (4+3) Cycloadditions**Short Review**

1073

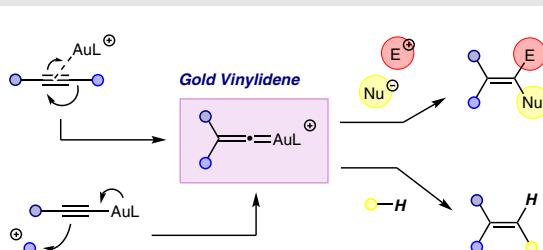
**Synthesis**

Synthesis 2019, 51, 1087–1099
DOI: 10.1055/s-0037-1611647

F. Gagosz*
University of Ottawa, Canada

Gold Vinylidenes as Useful Intermediates in Synthetic Organic Chemistry**Short Review**

1087



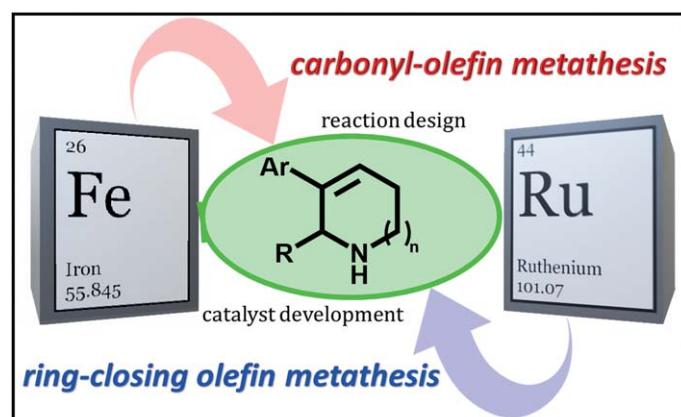
Synthesis

Synthesis 2019, 51, 1100–1114
DOI: 10.1055/s-0037-1611651

E. J. Gross^{*}
C. S. Schindler^{*}
University of Michigan, USA

Recent Advances in the Application of Ring-Closing Metathesis for the Synthesis of Unsaturated Nitrogen Heterocycles**Short Review**

1100

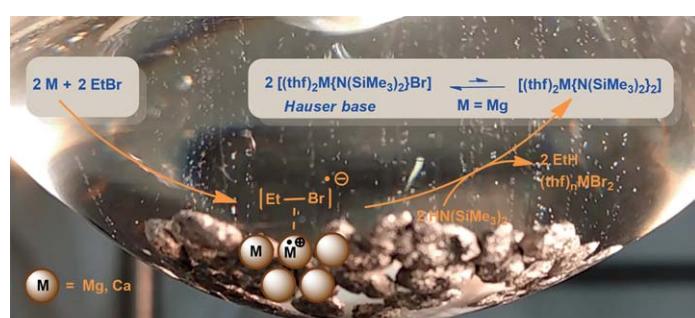
**Synthesis**

Synthesis 2019, 51, 1115–1122
DOI: 10.1055/s-0037-1610407

S. Kriek^{*}
P. Schüler^{*}
J. M. Peschel^{*}
M. Westerhausen^{*}
Friedrich Schiller University Jena,
Germany

Straightforward One-Pot Syntheses of Silylamides of Magnesium and Calcium via an In Situ Grignard Metalation Method**Feature**

1115

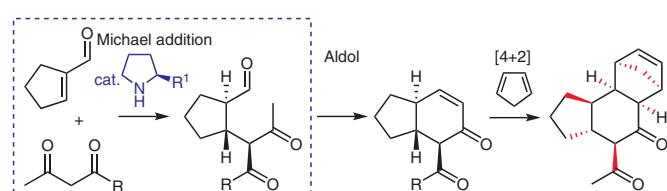
**Synthesis**

Synthesis 2019, 51, 1123–1134
DOI: 10.1055/s-0037-1610409

Y. Stöckl^{*}
W. Frey^{*}
J. Lang^{*}
B. Claessen^{*}
A. Baro^{*}
S. Laschat^{*}
Universität Stuttgart, Germany

Asymmetric Organocatalysis Revisited: Taming Hydrindanes with Jörgensen–Hayashi Catalyst**Feature**

1123



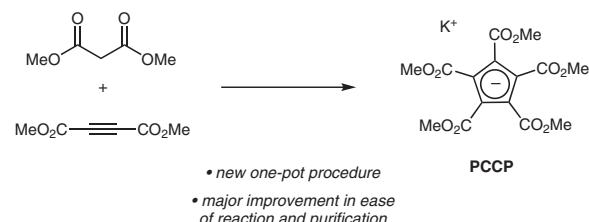
Synthesis

Synthesis 2019, 51, 1135–1138
DOI: 10.1055/s-0037-1611650

M. A. Radtke
C. C. Dudley
J. M. O'Leary
T. H. Lambert*
Columbia University, USA
Cornell University, USA

A Scalable, One-Pot Synthesis of 1,2,3,4,5-Pentacarbomethoxycyclopentadiene

Feature
1135

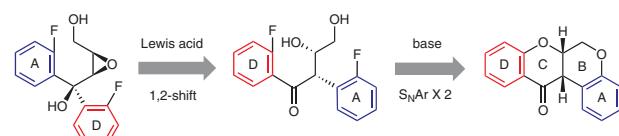
**Synthesis**

Synthesis 2019, 51, 1139–1156
DOI: 10.1055/s-0037-1611654

S. Matsuoka
K. Nakamura
K. Ohmori*
K. Suzuki*
Tokyo Institute of Technology,
Japan

General Synthetic Approach to Rotenoids via Stereospecific, Group-Selective 1,2-Rearrangement and Dual S_NAr Cyclizations of Aryl Fluorides

Feature
1139

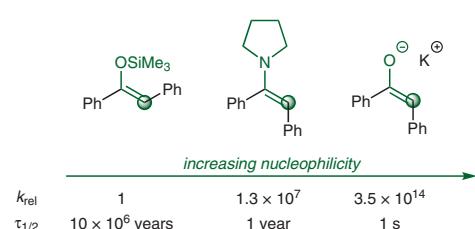
**Synthesis**

Synthesis 2019, 51, 1157–1170
DOI: 10.1055/s-0037-1611634

A. I. Leonov
D. S. Timofeeva
A. R. Ofial*
H. Mayr*
Ludwig-Maximilians-Universität
München, Germany

Metal Enolates – Enamines – Enol Ethers: How Do Enolate Equivalents Differ in Nucleophilic Reactivity?

Feature
1157



Synthesis

Bromine-Radical-Mediated Site-Selective Allylation of C(sp³)–H Bonds

Feature

1171

Synthesis 2019, 51, 1171–1177
DOI: 10.1055/s-0037-1610413

M. Ueda
A. Maeda
K. Hamaoka
M. Sasano
T. Fukuyama
I. Ryu*

Osaka Prefecture University,
Japan
National Chiao Tung University,
Taiwan

up to 66% yield
16 examples

Synthesis

An Asymmetric Organocatalytic Aldol Reaction of a Hydrophobic Aldehyde in Aqueous Medium Running in Flow Mode

Feature

1178

Synthesis 2019, 51, 1178–1184
DOI: 10.1055/s-0037-1610404

L. Schober
S. Ratnam
Y. Yamashita
N. Adebar
M. Pieper
A. Berkessel
V. Hessel
H. Gröger*

Bielefeld University, Germany

	conv. [%]	ee [%]
flow mode	74	89
batch mode	67	91

Synthesis

Oxidative Coupling of N-Methoxyamides and Related Compounds toward Aromatic Hydrocarbons by Designer μ-Oxo Hypervalent Iodine Catalyst

Feature

1185

Synthesis 2019, 51, 1185–1195
DOI: 10.1055/s-0037-1611661

T. Dohi*
H. Sasa
M. Dochi
C. Yasui
Y. Kita*

Ritsumeikan University, Japan

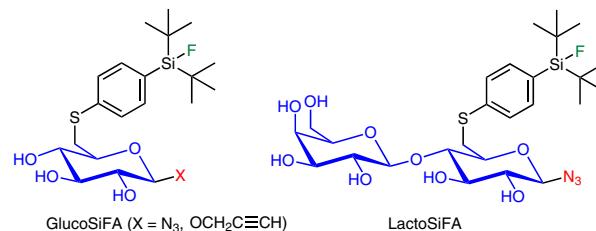
$\mu\text{-oxo hypervalent iodine catalyst}$
the best 0.5 mol%

catalyst TON over 100

Synthesis

Synthesis 2019, 51, 1196–1206
DOI: 10.1055/s-0037-1611656

A. Wiegand
V. Wiese
B. Glowacki
L. Iovkova
R. Schirrmacher*
K. Jurkschat*
N. Krause*
Technische Universität Dortmund, Germany
University of Alberta, Canada

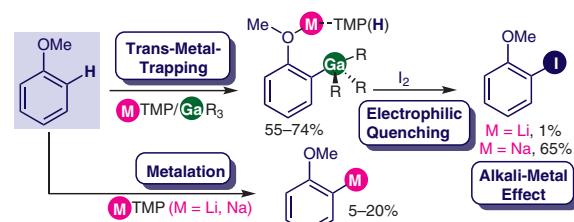
GlucoSiFA and LactoSiFA: New Types of Carbohydrate-Tagged Silicon-Based Fluoride Acceptors for ^{18}F -Positron Emission Tomography (PET)**Feature**

1196

Synthesis

Synthesis 2019, 51, 1207–1215
DOI: 10.1055/s-0037-1611646

R. McLellan
M. Uzelac
L. J. Bole
J. M. Gil-Negrete
D. R. Armstrong
A. R. Kennedy
R. E. Mulvey*
E. Hevia*
University of Strathclyde, UK

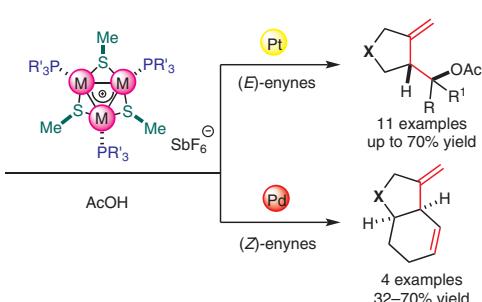
Alkali Metal Effects in Trans-Metal-Trapping (TMT): Comparing LiTMP with NaTMP in Cooperative MTMP/Ga(CH_2SiMe_3)₃ Metalation Reactions**Feature**

1207

Synthesis

Synthesis 2019, 51, 1216–1224
DOI: 10.1055/s-0037-1611653

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M. Lanzi
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M. Malacria*
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Università di Parma, Italy
UPMC Sorbonne Université,
IPCM (UMR CNRS 8232), France

Complementary Reactivity of 1,6-Enynes with All-Metal Aromatic Tri-nuclear Complexes and Carboxylic Acids**Feature**

1216

Synthesis

Synthesis 2019, 51, 1225–1234
DOI: 10.1055/s-0037-1611673

R. Blieck

L. A. Perego*

I. Ciofini

L. Grimaud*

M. Taillefer*

F. Monnier*

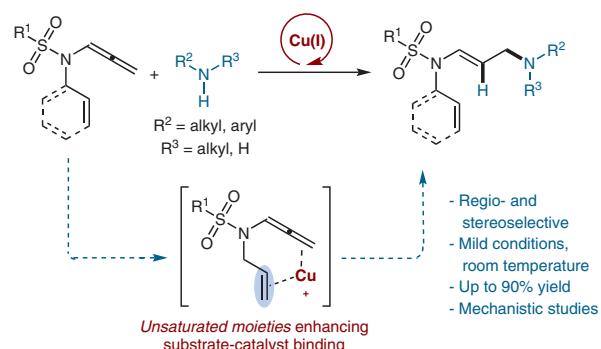
Institut Charles Gerhardt Montpellier UMR 5253 CNRS, AM2N, France

Chimie ParisTech, France
PSL University, Sorbonne Université, France

Institut Universitaire de France, IUF, France

**Copper-Catalysed Hydroamination of N-Allenylsulfonamides:
The Key Role of Ancillary Coordinating Groups****Paper**

1225

**Synthesis**

Synthesis 2019, 51, 1235–1242
DOI: 10.1055/s-0037-1610414

B. Ya. Karlinskii

L. V. Romashov

K. I. Galkin

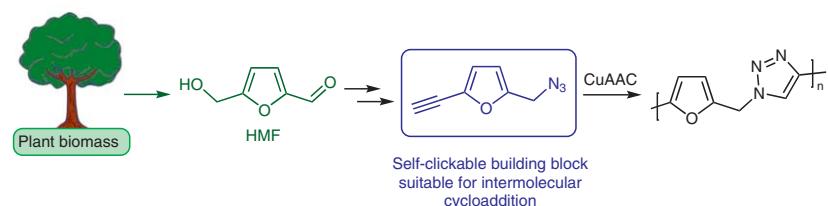
P. G. Kislytsyn

V. P. Ananikov*

N. D. Zelinsky Institute of Organic Chemistry of the Russian Academy of Sciences, Russian Federation

Synthesis of 2-Azidomethyl-5-ethynylfuran: A New Bio-Derived Self-Clickable Building Block**Paper**

1235

**Paper**

1243

Synthesis

Synthesis 2019, 51, 1243–1252
DOI: 10.1055/s-0037-1611648

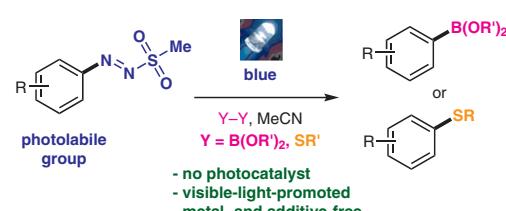
L. Blank

M. Fagnoni

S. Protti

M. Rueping*

RWTH Aachen University, Germany

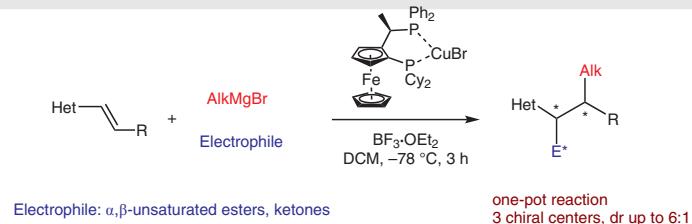
Visible Light-Promoted Formation of C–B and C–S Bonds under Metal- and Photocatalyst-Free Conditions

Synthesis**Lewis Acid Promoted Trapping of Chiral Aza-enolates****Paper**

1253

Synthesis 2019, 51, 1253–1262
DOI: 10.1055/s-0037-1611657

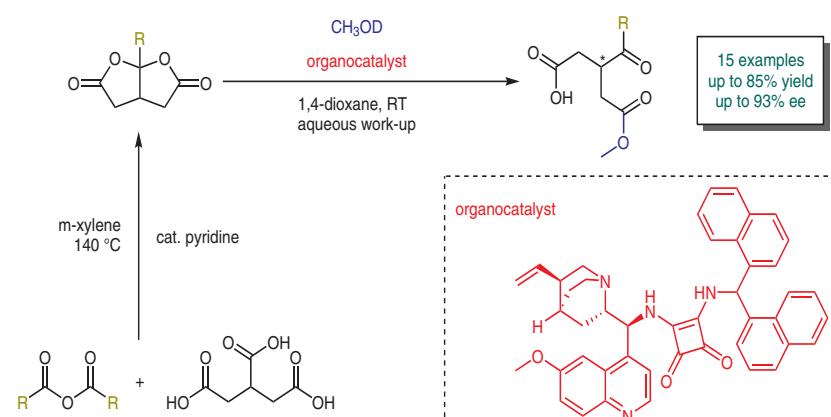
F. Lanza
J. M. Pérez
R. P. Jumde
S. R. Harutyunyan*
Rijksuniversiteit Groningen, The Netherlands

**Synthesis****Organocatalytic Desymmetrisation of Fittig's Lactones: Deuterium as a Reporter Tag for Hidden Racemisation****Paper**

1263

Synthesis 2019, 51, 1263–1272
DOI: 10.1055/s-0037-1611655

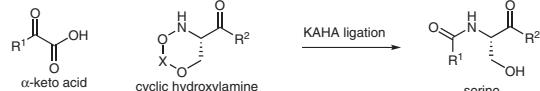
P. Spránitz
P. Sőregi
B. B. Botlik
M. Berta
T. Soós*
Institute of Organic Chemistry,
Research Centre for Natural Sciences, Hungary

**Synthesis****Synthesis and Evaluation of Cyclic Acetals of Serine Hydroxylamine for Amide-Forming KAHA Ligations****Paper**

1273

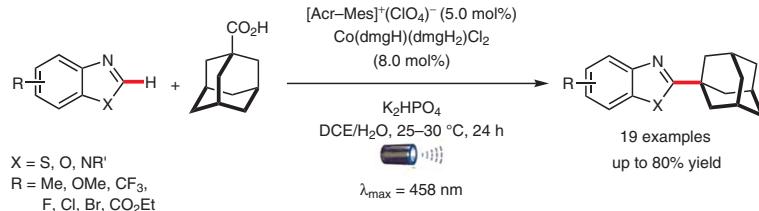
Synthesis 2019, 51, 1273–1283
DOI: 10.1055/s-0037-1611635

S. Baldauf
J. W. Bode*
ETH Zürich, Switzerland



J. Koeller**P. Gandeepan****L. Ackermann***

Georg August-Universität, Germany



- * C–H Adamantylation
- * Visible-light-promoted decarboxylation
- * No stoichiometric oxidants
- * No expensive Ir or Ru photocatalysts
- * Ambient reaction temperature

