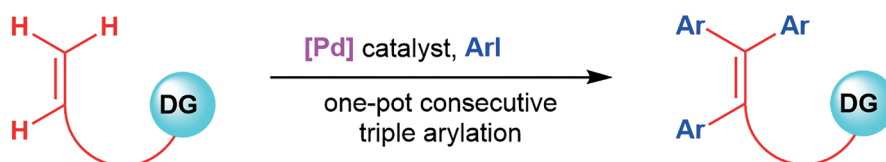


# Synthesis

Reviews and Full Papers in Chemical Synthesis

July 2, 2024 • Vol. 56, 1967–2144



- native **Directing Group** (aldehyde, ketone, ester)
- one-pot synthesis
- mild conditions, simple operations
- moderate yields

Remote-Carbonyl-Directed Consecutive Arylation of Terminal Alkenes for the Synthesis of Tetrasubstituted Olefins

*K. Li, R. Luan, Y. Du, W. Su*

13

## Synthesis

*Synthesis* 2024, 56, 1967–1978  
DOI: 10.1055/s-0042-1751518

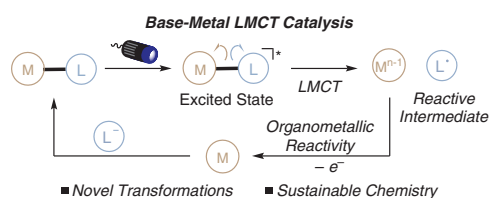
S. M. Treacy  
T. Rovis\*

Columbia University, USA

## Photoinduced Ligand-to-Metal Charge Transfer in Base-Metal Catalysis

## Review

1967



## Synthesis

*Synthesis* 2024, 56, 1979–1988  
DOI: 10.1055/a-2172-1386

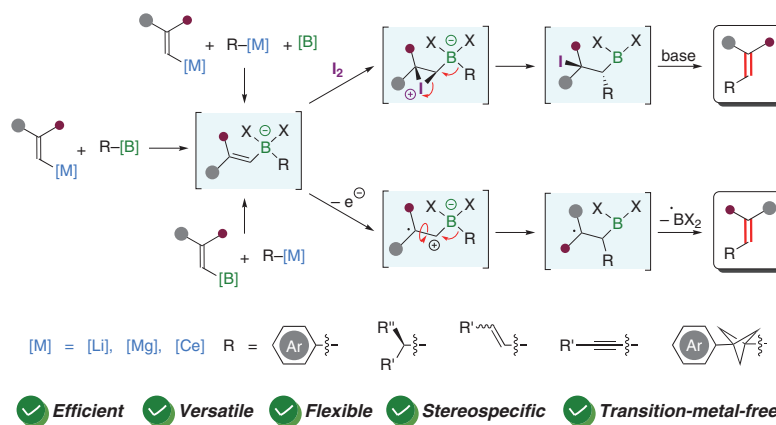
X. Li  
Q. Song\*

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## Recent Progress on the Zweifel Olefination: An Update

## Short Review

1979



## Synthesis

*Synthesis* 2024, 56, 1989–1998  
DOI: 10.1055/a-2323-0633

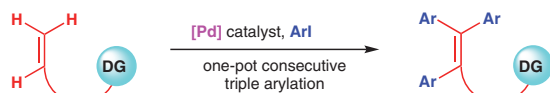
K. Li  
R. Luan  
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## Remote-Carbonyl-Directed Consecutive Arylation of Terminal Alkenes for the Synthesis of Tetrasubstituted Olefins

Feature

1989



- native **Directing Group** (aldehyde, ketone, ester)
- one-pot synthesis
- mild conditions, simple operations
- moderate yields

## Synthesis

*Synthesis* 2024, 56, 1999–2004  
DOI: 10.1055/a-2314-1715

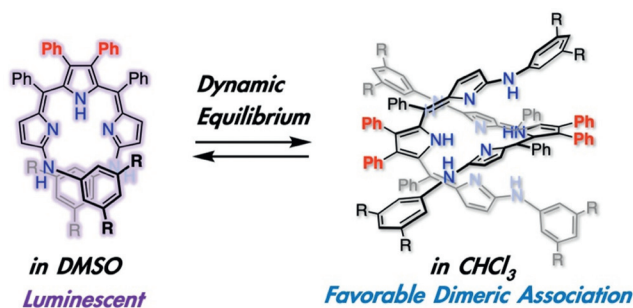
A. Nishiyama  
Y. Matsuo  
S. Seki\*  
T. Tanaka\*

Kyoto University, Japan

## Synthesis and Dynamic Behaviors of 5,7,8,10-Tetraphenyl-1,14-dianilinothripyrins

Paper

1999



## Synthesis

*Synthesis* 2024, 56, 2005–2014  
DOI: 10.1055/a-2311-3930

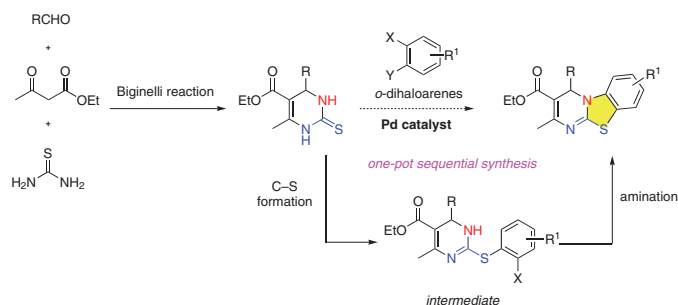
X. Hu  
R. Liu  
S. Fu  
L. Shi  
C. Chen\*  
J. Peng\*

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P. R. of China

Pd-Catalyzed Regioselective Tandem C–S/C–N Bond Formation for Modular Synthesis of Pyrimidine-Fused Benzothiazoles from *o*-Dihaloarenes and 3,4-Dihydropyrimidin-2-thiones

Paper

2005



## Synthesis

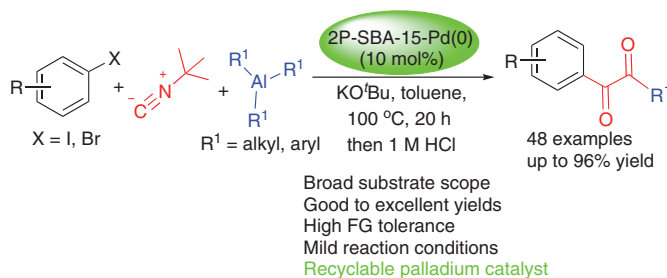
Synthesis 2024, 56, 2015–2024  
DOI: 10.1055/s-0040-1720121

Z. Tu  
J. Zhan  
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Jiangxi Academy of Sciences,  
P. R. of China

## Recyclable Palladium-Catalyzed Carbonylative Coupling of Aryl Halides and Organoaluminum Compounds with *tert*-Butyl Isocyanide as CO Equivalent Leading to 1,2-Diketones

Paper  
2015



## Synthesis

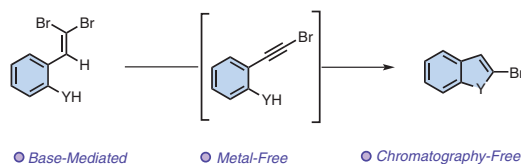
Synthesis 2024, 56, 2025–2030  
DOI: 10.1055/s-0042-1751577

R. Arora  
S. Li  
M. Stommer  
B. Mirabi  
M. Lautens\*

University of Toronto, Canada

## Base-Mediated Synthesis of 2-Bromobenzoheterocycles

Paper  
2025



## Synthesis

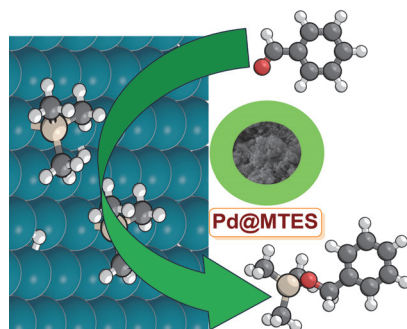
Synthesis 2024, 56, 2031–2046  
DOI: 10.1055/a-2326-6277

C. M. Matherne  
J. E. Wroblewski  
H. S. Drago  
G. T. Marchan  
A. R. Young  
N. Kingsley  
C. P. Plaisance  
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## Palladium Nano-Dispersed and Stabilized in Organically Modified Silicate as a Heterogeneous Catalyst for the Conversion of Aldehydes into *O*-Silyl Ether Derivatives under Neat Conditions

Paper  
2031



## Synthesis

Synthesis 2024, 56, 2047–2058  
DOI: 10.1055/a-2282-7702

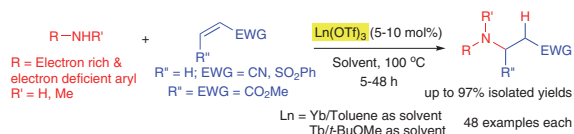
R. Rajesh  
O. K. Sandhya  
S. P. Narayanan  
R. Kunjanpillai\*

St. Albert's College (Autonomous), India

## Lanthanoids in Hydroarylaminations: Yb(III)- and Tb(III)-Catalyzed Addition of Arylamines to Activated Olefins

Paper

2047



Shelf-available catalysts

Ligand-free catalysis

Works even with many electron-deficient amines

Not air- or moisture-sensitive catalysis

Isolated yields for all compounds

## Synthesis

Synthesis 2024, 56, 2059–2065  
DOI: 10.1055/s-0043-1774861

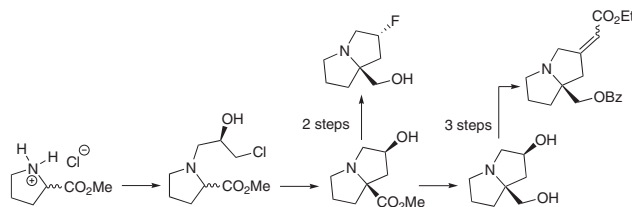
H. Ming  
D. He  
S. Si  
C. Xu  
Y. Yuan  
X. Tian  
Z. Hu  
S. Li  
H. Zhang  
F. Huang\*  
Y.-L. Chen\*

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Nature Pharmaceutical (Anhui)  
Co., Ltd, P. R. of China

## Syntheses of 7a-Substituted Pyrrolizidine Derivatives via Stereocontrolled Anionic Cyclization

Paper

2059



## Synthesis

Synthesis 2024, 56, 2066–2076  
DOI: 10.1055/a-2314-1877

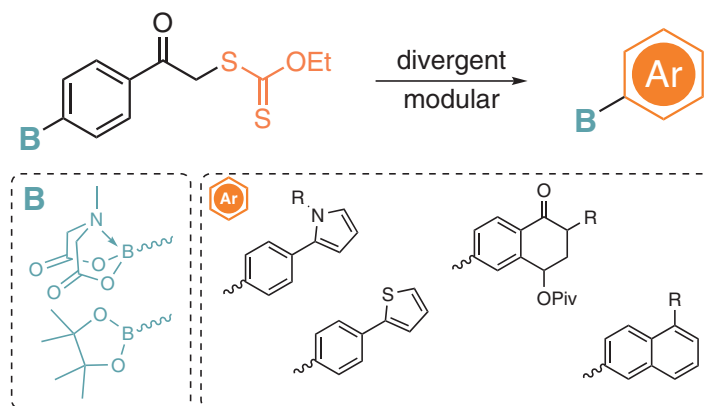
C. He  
X. Pan\*  
S. Z. Zard\*

Fudan University, P. R. of China  
Ecole Polytechnique, France

## Modular Synthesis of Conjugated Aromatic Boronate Esters by Radical Xanthate Addition

Paper

2066



## Synthesis

Synthesis 2024, 56, 2077–2083  
DOI: 10.1055/a-2328-3037

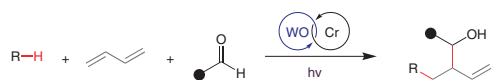
D. Ding  
P.-S. Wang\*

University of Science and Technology of China, P. R. of China

## Redox-Neutral 1,2-Dicarbonylation of Buta-1,3-diene by Merging Decatungstate and Chromium Catalysis

Paper

2077



- TBADT/CrCl<sub>3</sub>
- atom-economic
- redox-neutral
- wide range of C–H substrates, BDEs: 89–100 kcal/mol
- up to 95% ee

## Synthesis

Synthesis 2024, 56, 2084–2092  
DOI: 10.1055/s-0043-1774905

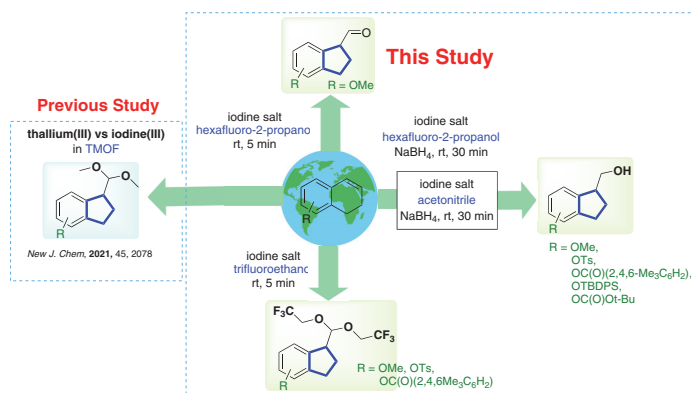
A. Khan\*  
U. Nishan\*  
A. Badshah  
R. Ullah  
E. A. Ali

Michigan State University, USA  
Kohat University of Science and Technology, Pakistan

## Iodine(III)-Mediated Ring-Contraction Reactions Using Halogenated and Non-halogenated Solvents

Paper

2084



## Synthesis

Synthesis 2024, 56, 2093–2099  
DOI: 10.1055/s-0043-1763758

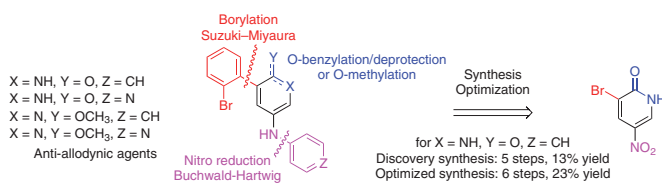
T. Frazier  
P. Murail  
F. Giraud  
A. Artola\*  
R. Dallel\*  
F. Anizon\*  
P. Moreau\*

Université Clermont Auvergne,  
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## Improved Synthesis and Preparation of Analogues of a Pain-Relieving Pyridin-2(1H)-one

Paper

2093



## Synthesis

Synthesis 2024, 56, 2100–2108  
DOI: 10.1055/a-2323-0770

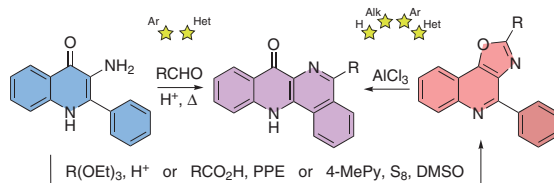
A. L. Shatsauskas  
S. A. Kirnosov  
E. S. Keyn  
V. Y. Shuvalov  
A. S. Kostyuchenko  
A. S. Fisyuk\*

Dostoevsky Omsk State University, Russian Federation

## Synthesis of Dibenzo[*b,h*][1,5]naphthyridin-7(12*H*)-ones: The Pictet–Spengler Reaction versus a Rearrangement of 4-Phenyl[1,3]oxazolo[4,5-*c*]quinolines

Paper

2100



## Synthesis

Synthesis 2024, 56, 2109–2117  
DOI: 10.1055/s-0043-1774842

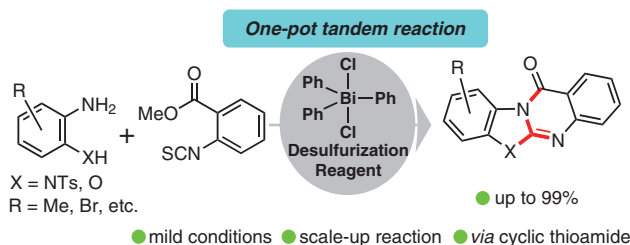
A. Koyanagi  
Y. Murata\*  
C. Takeshita  
Y. Kato  
M. Matsumura  
S. Yasuike\*

Aichi Gakuin University, Japan

## Synthesis of Tetracyclic Benzazole–Condensed Quinazolinones through Triphenylbismuth Dichloride Assisted Cyclodesulfurization

Paper

2109



## Synthesis

Synthesis 2024, 56, 2118–2126  
DOI: 10.1055/a-2290-6614

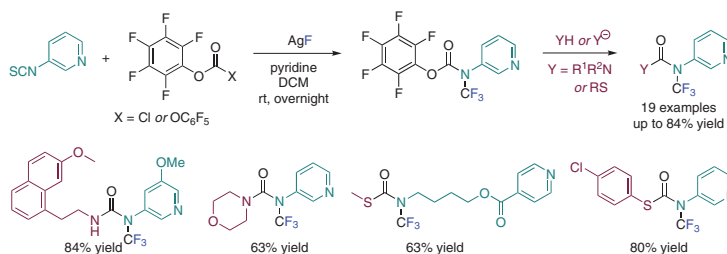
X. He  
L. Deng  
Y. You  
Y. Lai  
J. Liu\*

The First Affiliated Hospital of Sun Yat-sen University, P. R. of China

## Synthesis of *N*-Trifluoromethyl Thiocarbamates and Ureas from 3-Aminopyridine-Derived Carbamates

Paper

2118



## Synthesis

Synthesis 2024, 56, 2127–2135  
DOI: 10.1055/a-2283-6798

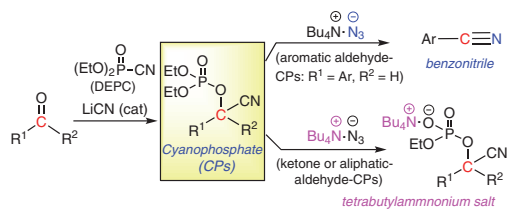
H. Yoneyama  
A. Okada  
N. Hayama  
S. Harusawa  
Y. Usami

Osaka Medical and Pharmaceutical University, Japan

## Transformation of Benzaldehydes to Benzonitriles via Cyanophosphates without One-Carbon Homologation

Paper

2127



## Synthesis

Synthesis 2024, 56, 2136–2144  
DOI: 10.1055/s-0043-1774860

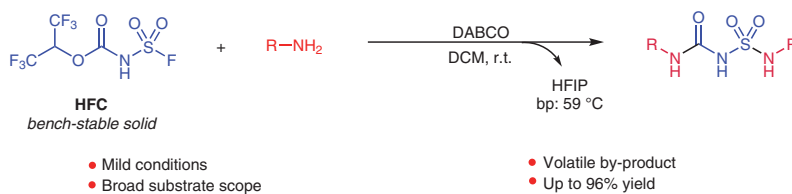
S. Liu  
X. Li  
X. Wang  
L. Xu\*  
J. Dong\*

Institute of Translational Medicine, P. R. of China

Hexafluoroisopropyl *N*-Fluorosulfonyl Carbamate: Synthesis and Its Facile Transformation to Sulfamoyl Ureas

Paper

2136



- Mild conditions
- Broad substrate scope

- Volatile by-product
- Up to 96% yield