

## Synthesis

## FR901483: Synthetic Efficiency Remains a Challenge

## Review

*Synthesis* **2019**, *51*, 2237–2251  
DOI: 10.1055/s-0037-1611779

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2237

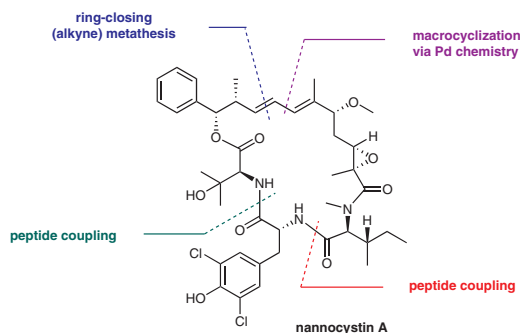
## Synthesis

## The Chemical Syntheses of Nannocystins

## Short Review

*Synthesis* **2019**, *51*, 2252–2260  
DOI: 10.1055/s-0037-1611796

Z. Wang\*  
State University of New York,  
USA



2252

## Synthesis

## A New Wave of Amide Bond Formations for Peptide Synthesis

## Short Review

2261

Synthesis 2019, 51, 2261–2277  
DOI: 10.1055/s-0037-1611773

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University of Antwerp, Belgium



## Synthesis

Directed *ortho*-Metalation of Arenesulfonyl Fluorides and Aryl Fluorosulfates

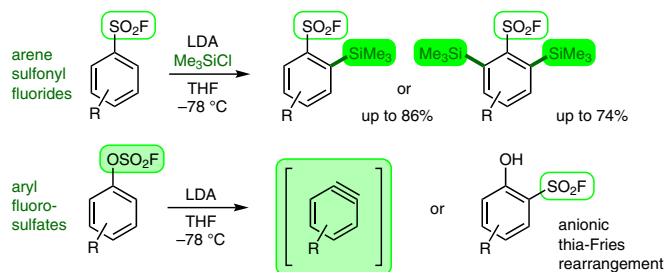
## Feature

2278

Synthesis 2019, 51, 2278–2286  
DOI: 10.1055/s-0037-1610877

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## Synthesis

## A Graphene Oxide Nanosheet Supported NHC–Palladium Complex as a Highly Efficient and Recyclable Suzuki Coupling Catalyst

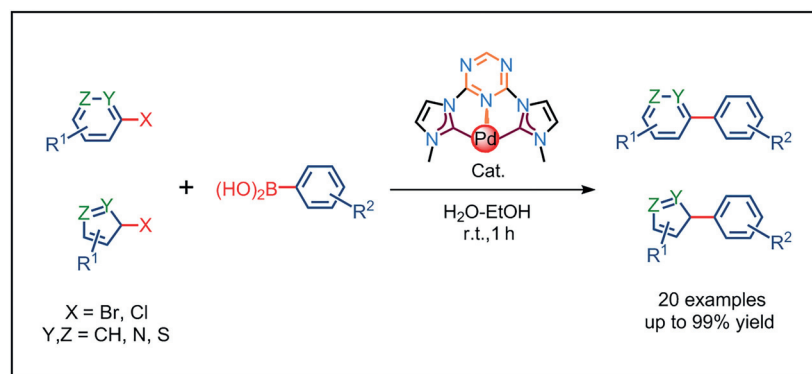
## Paper

2287

Synthesis 2019, 51, 2287–2292  
DOI: 10.1055/s-0037-1611726

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J. So  
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## Synthesis

*Synthesis* **2019**, *51*, 2293–2304  
DOI: 10.1055/s-0037-1611747

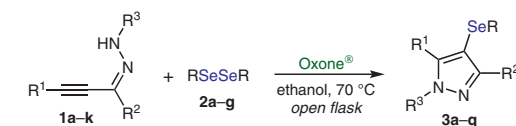
G. Perin\*  
P. C. Nobre  
D. H. Mailahn  
M. S. Silva  
T. Barcellos  
R. G. Jacob  
E. J. Lenardão  
C. Santi  
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### Synthesis of 4-Organoselenanyl-1*H*-pyrazoles: Oxone®-Mediated Electrophilic Cyclization of $\alpha,\beta$ -Alkynyl Hydrazones by Using Diorganyl Diselenides

Paper

2293



- ✓ mild reaction condition
- ✓ good yield, 17 examples
- ✓ <sup>77</sup>Se NMR and HRMS studies
- ✓ easy to scale-up
- ✓ metal- and halogen-free

## Synthesis

*Synthesis* **2019**, *51*, 2305–2310  
DOI: 10.1055/s-0037-1610867

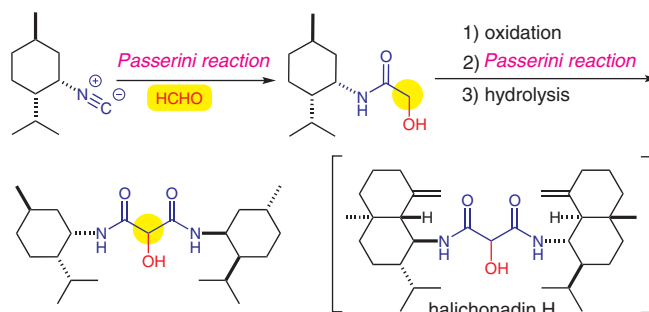
Y. Ichikawa\*  
T. Yamasaki  
K. Nakanishi  
Y. Udagawa  
S. Hosokawa  
T. Masuda

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### Bioinspired Synthesis of the Central Core of Halichonadin H: The Passerini Reaction in a Hypothetical Biosynthesis of Marine Natural Products

Paper

2305



## Synthesis

*Synthesis* **2019**, *51*, 2311–2317  
DOI: 10.1055/s-0037-1611765

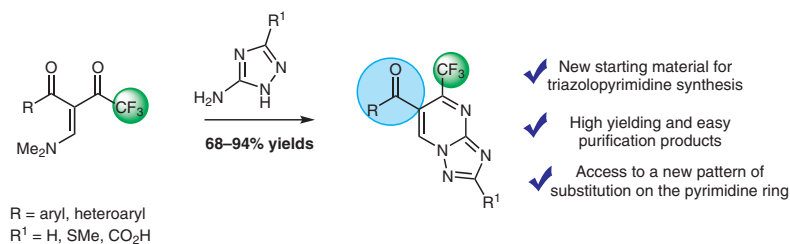
V. P. Andrade  
M. Mittersteiner  
H. G. Bonacorso  
C. P. Frizzo  
M. A. P. Martins  
N. Zanatta\*

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### Regioselective Synthesis of 5-(Trifluoromethyl)[1,2,4]triazolo [1,5-*a*]pyrimidines from $\beta$ -Enamino Diketones

Paper

2311



## Synthesis

Synthesis 2019, 51, 2318–2322  
DOI: 10.1055/s-0037-1610865

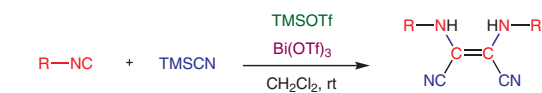
S. Tafuku  
T. Fukuda  
K. Chiba  
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and Technology, Japan

### A New Method for the Preparation of Bis(alkylamino)maleonitriles from Aliphatic Isocyanides with TMSCN and Bi(OTf)<sub>3</sub>

Paper

2318



R = *tert*-alkyl

13 examples

up to 43% yield

- In a single step
- Highly functional-group tolerant
- Simple and mild conditions

## Synthesis

Synthesis 2019, 51, 2323–2330  
DOI: 10.1055/s-0037-1610869

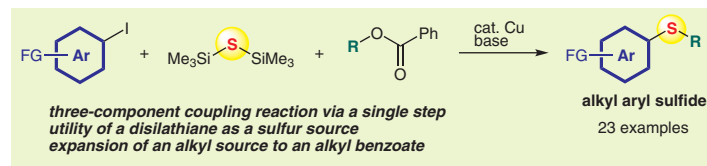
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H. Maeda  
Y. Ogiwara

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### Copper-Catalyzed Three-Component Coupling Reaction of Aryl Iodides, a Disilathiane, and Alkyl Benzoates Leading to a One-Pot Synthesis of Alkyl Aryl Sulfides

Paper

2323



## Synthesis

Synthesis 2019, 51, 2331–2338  
DOI: 10.1055/s-0037-1610868

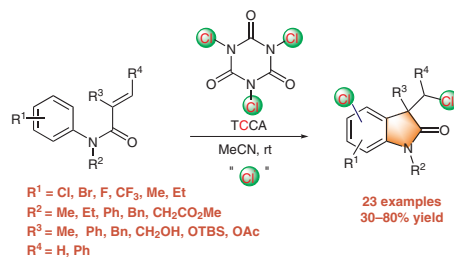
Y. Su\*  
L. Cao  
Y. Shi  
Y. Feng  
W. Xue  
G. Cao  
K.-H. Wang  
D. Huang  
C. Huo  
Y. Hu

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### Trichloroisocyanuric Acid Induced Chlorine Radical Cascade Chlorination/Carbocyclization of Acrylamides: Constructing Chlorinated Oxindoles by C–Cl and C–C Bond-Forming Reactions

Paper

2331



- ✓ Chlorine-radical-induced cyclization
- ✓ Without metal or additional oxidant
- ✓ Efficient C–Cl and C–C bond formation

## Synthesis

*Synthesis* **2019**, *51*, 2339–2350  
DOI: 10.1055/s-0037-1610875

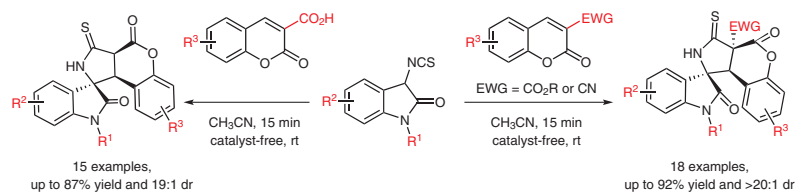
X. Zuo  
S. Chen  
S.-W. Xu  
S.-Q. Chang  
X.-L. Liu\*  
Y. Zhou  
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### Highly Efficient, Catalyst-Free, Diastereoselective, Diversity-Oriented Synthesis of Dihydrocoumarin–Pyrrolidine–Spirooxindoles Bearing Three Contiguous Stereocenters

Paper

2339



## Synthesis

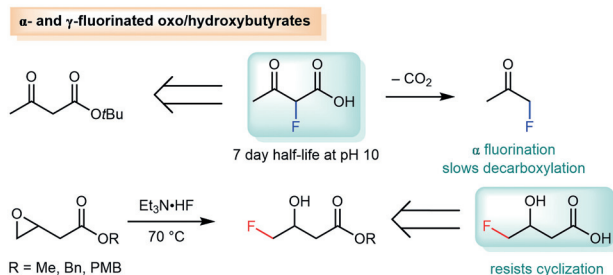
*Synthesis* **2019**, *51*, 2351–2358  
DOI: 10.1055/s-0037-1610695

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### Synthesis of 2-Fluoroacetoacetic Acid and 4-Fluoro-3-hydroxybutyric Acid

Paper

2351



## Synthesis

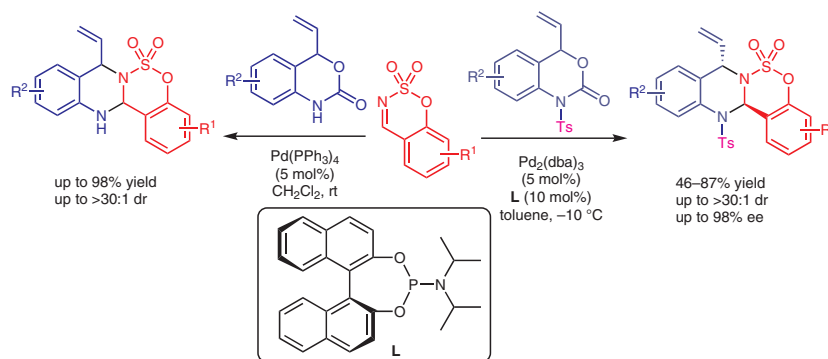
*Synthesis* **2019**, *51*, 2359–2370  
DOI: 10.1055/s-0037-1610685

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### Palladium-Catalyzed Decarboxylative [4+2] Cycloaddition of Vinyl Benzoxazinanones with Cyclic *N*-Sulfinamides: Stereoselective Synthesis of Benzosulfamidate-Fused Tetrahydroquinazolines

Paper

2359



## Synthesis

Synthesis 2019, 51, 2371–2378  
DOI: 10.1055/s-0037-1610696

R. Chatterjee  
S. Santra  
G. V. Zyryanov  
A. Majee\*

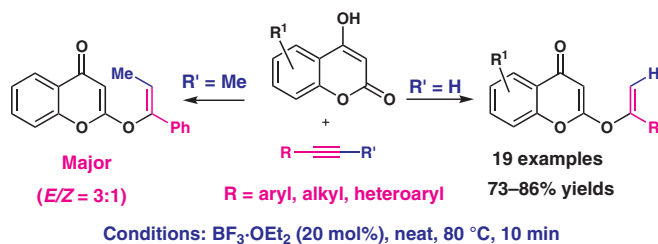
Visva-Bharati (A Central University), India

## Vinylation of Carbonyl Oxygen in 4-Hydroxycoumarin: Synthesis of Heteroarylated Vinyl Ethers

Paper

2371

### O-Vinylation of 4-Hydroxycoumarin



## Synthesis

Synthesis 2019, 51, 2379–2386  
DOI: 10.1055/s-0037-1610698

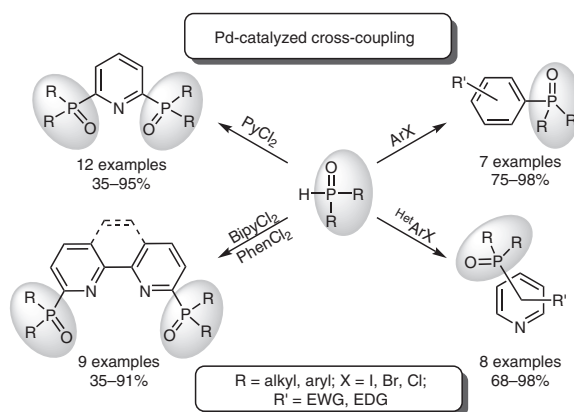
G. G. Zakirova  
D. Y. Mladentsev  
N. E. Borisova\*

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## Palladium-Catalyzed C–P Cross-Coupling between (Het)aryl Halides and Secondary Phosphine Oxides

Paper

2379



## Synthesis

Synthesis 2019, 51, 2387–2396  
DOI: 10.1055/s-0037-1612253

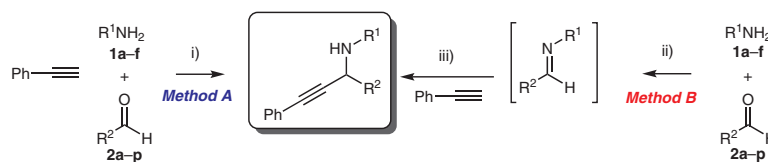
C. Cimarelli\*  
F. Navazio  
F. V. Rossi  
F. Del Bello  
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## Activation of Primary Amines by Copper(I)-Based Lewis Acid Promoters in the Solventless Synthesis of Secondary Propargylamines

Paper

2387



**Method A: 9 examples up to 62% yield**  
i)  $\text{CuSO}_4$  (30 mol%)/ $\text{NaI}$  (60 mol%),  
 $\text{PhCOOH}$  (5 mol%), solventless,  $\text{N}_2$ , 80 °C

**Method B: 20 examples up to 95% yield**  
ii)  $\text{MgSO}_4$ ,  $\text{CeCl}_3 \cdot 7\text{H}_2\text{O}$  (30 mol%), solventless,  $\text{N}_2$ , r.t., 0.25 h  
iii)  $\text{CuI}$  (30 mol%), solventless,  $\text{N}_2$ , 40 °C

Synthesis

A Facile and Efficient Approach for the Synthesis of 3-Aryl-4-hydroxy-1,3-thiazolidin-2-ones

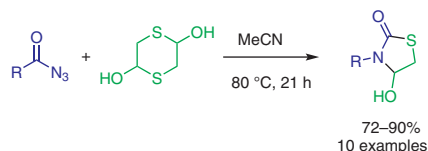
Paper

2397

Synthesis 2019, 51, 2397–2401  
DOI: 10.1055/s-0037-1610862

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Synthesis

One-Pot Three-Component Synthesis of Pyrrolidin-2-ones via a Sequential Wittig/Nucleophilic Addition/Cyclization Reaction

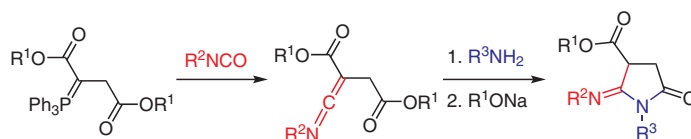
Paper

2402

Synthesis 2019, 51, 2402–2408  
DOI: 10.1055/s-0037-1612279

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Synthesis

The Quest for Double Vicinal C–H Bond Activation on the ( $\eta^5:\eta^5$ -Fulvalene)diiridium Platform: Syntheses and Structures of ( $\eta^5:\eta^5$ -Fulvalene) $\text{Ir}_2(\text{ortho-}\mu\text{-C}_6\text{H}_4)(\text{CO})_2$  (*Ir-Ir*) and Related Complexes

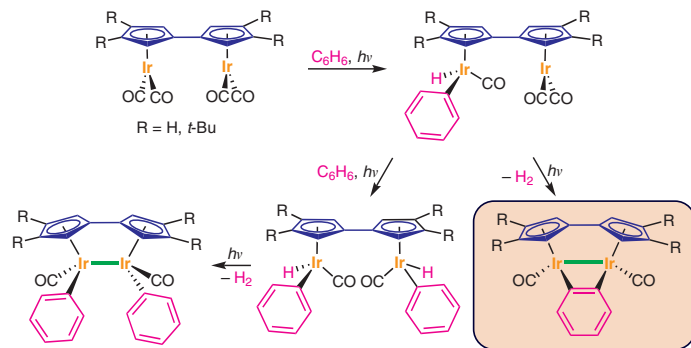
Paper

2409

Synthesis 2019, 51, 2409–2429  
DOI: 10.1055/s-0037-1611736

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## Green Access to $\alpha$ -Haloalkyl and $\alpha$ -Halobenzyl Esters, Versatile Intermediates for the One-Pot Two-Step Synthesis of *O,O'*-Diacyl Acetals Using Zinc-Based Ionic Liquid Catalyst

