

# Synthesis

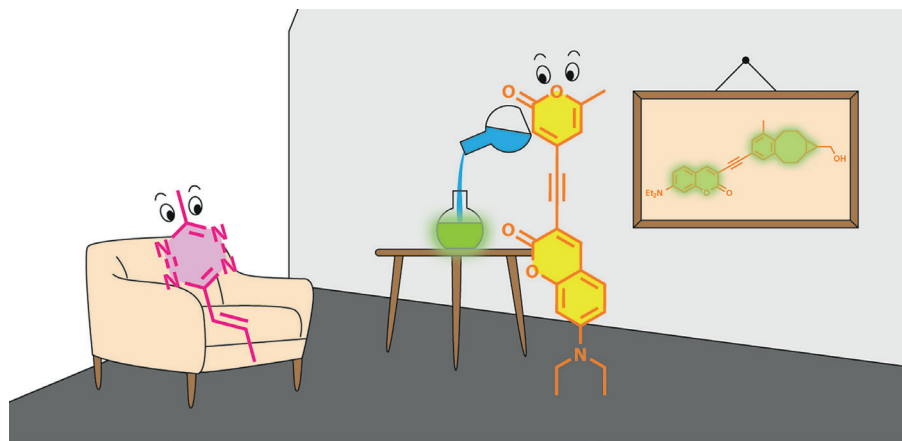
Reviews and Full Papers in Chemical Synthesis

September 1, 2022 • Vol. 54, 3667–3905

## Special Section

*dedicated to Prof. Ferenc Fülöp*

*Guest editor: Loránd Kiss*



Beyond the Bioorthogonal Inverse-Electron-Demand Diels–Alder Reactions of Tetrazines: 2-Pyrone-Functionalized Fluorogenic Probes

*G. B. Cserép, K. Németh, Á. Szatmári, F. Horváth, T. Imre, K. Németh, P. Kele*

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## Synthesis

*Synthesis* 2022, 54, 3667–3697  
DOI: 10.1055/a-1845-3810

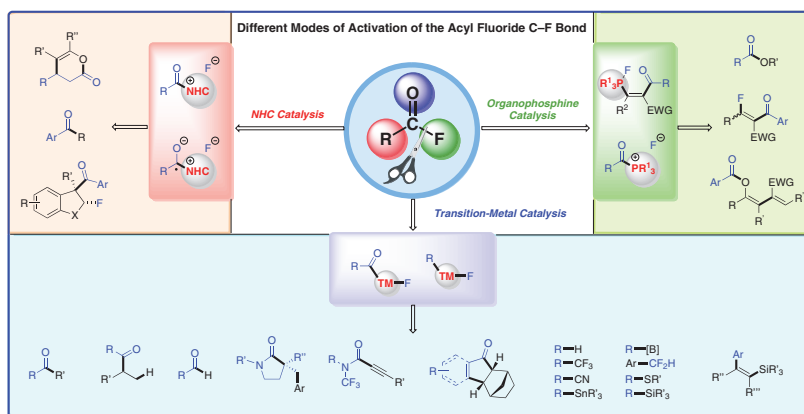
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## Recent Advances in C–F Bond Activation of Acyl Fluorides Directed toward Catalytic Transformation by Transition Metals, *N*-Heterocyclic Carbenes, or Phosphines

Review

3667



## Synthesis

*Synthesis* 2022, 54, 3698–3707  
DOI: 10.1055/a-1828-2367

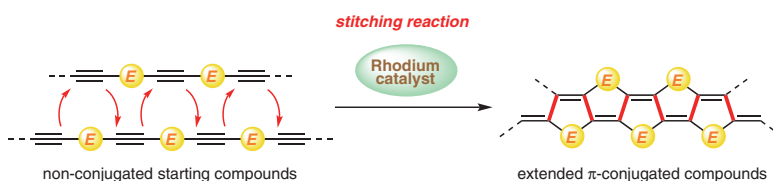
R. Shintani\*

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## Rhodium-Catalyzed Stitching Reactions for the Facile Synthesis of Extended $\pi$ -Conjugated Compounds

Short Review

3698



## Synthesis

Synthesis 2022, 54, 3708–3718  
DOI: 10.1055/a-1833-8813

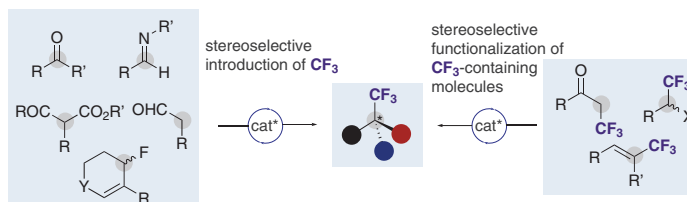
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Catalytic Asymmetric Construction of CF<sub>3</sub>-Substituted Chiral sp<sup>3</sup> Carbon Centers

## Short Review

3708



## Synthesis

Synthesis 2022, 54, 3719–3728  
DOI: 10.1055/a-1811-8503

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X. Liang

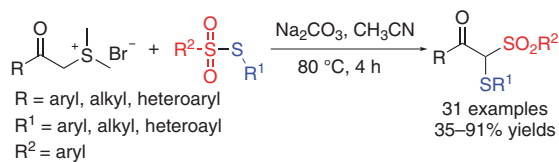
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1,1-Difunctionalization of  $\alpha$ -Carbonyl Sulfur Ylides with Thiosulfonates: Synthesis of  $\beta$ -Keto Thiosulfones

## Feature

3719



## Synthesis

Synthesis 2022, 54, 3729–3738  
DOI: 10.1055/a-1790-0869

J. Yu

S. Wen

Q. Tian

Y. Chen

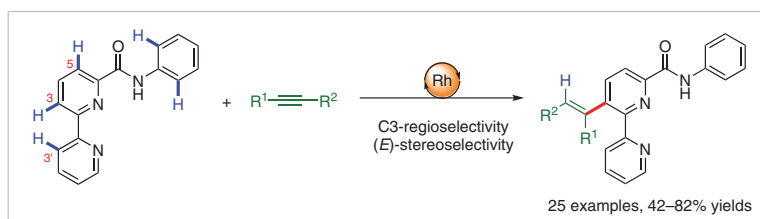
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## Rhodium(I)-Catalyzed Regioselective C–H Alkenylation of 2,2'-Bipyridine Derivatives with Alkynes

## Feature

3729



## Synthesis

*Synthesis* **2022**, *54*, 3739–3752  
DOI: 10.1055/a-1786-6496

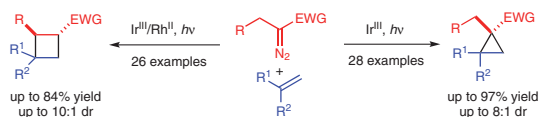
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## Visible-Light-Induced Catalysis: A Regioselectivity Switch between [2+1] and [2+2] Cycloaddition of Diazocarbonyls with Olefins

Feature

3739



## Synthesis

*Synthesis* **2022**, *54*, 3753–3760  
DOI: 10.1055/a-1811-8679

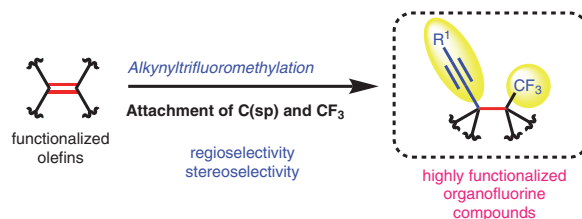
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## Developments in the Alkynyltrifluoromethylations of Alkenes and Alkynes

Special Topic

3753



## Synthesis

*Synthesis* **2022**, *54*, 3761–3770  
DOI: 10.1055/s-0040-1719891

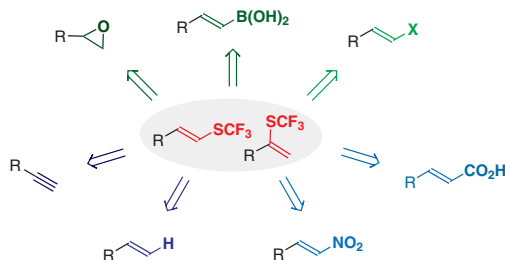
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## Direct Synthesis of Disubstituted Trifluoromethylthiolated Alkenes

Special Topic

3761



## Synthesis

Synthesis 2022, 54, 3771–3784  
DOI: 10.1055/a-1647-7292

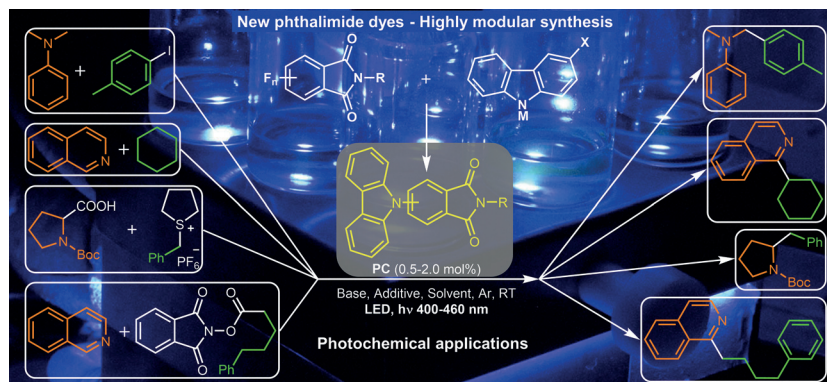
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### Modular Synthesis of Carbazole-Substituted Phthalimides as Potential Photocatalysts

## Special Topic

3771



## Synthesis

Synthesis 2022, 54, 3785–3792  
DOI: 10.1055/s-0041-1737346

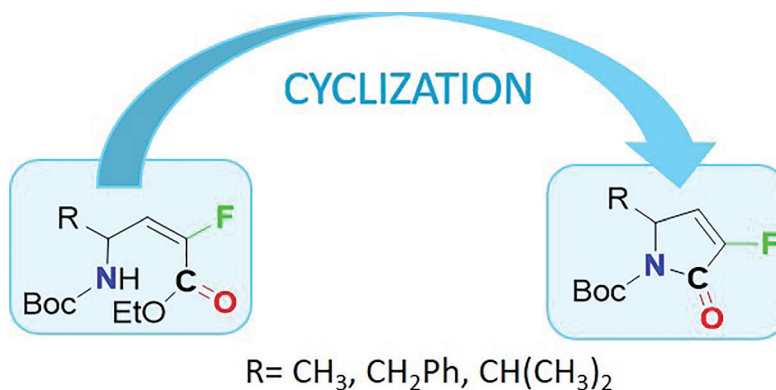
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### Fluorinated Olefinic Lactams: The Case of Amino Acids – Preparation and Mechanistic Studies

## Special Topic

3785



## Synthesis

Synthesis 2022, 54, 3793–3800  
DOI: 10.1055/s-0040-1719879

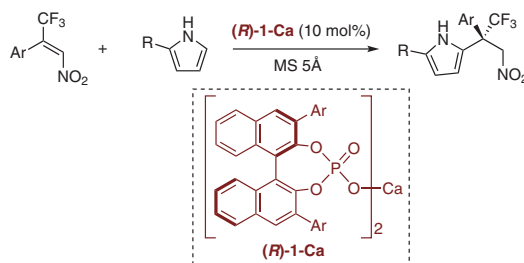
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### Chiral Calcium Phosphate Catalyzed Enantioselective Synthesis of All-Carbon Quaternary Center by Friedel–Crafts Alkylation Reaction of Pyrroles and Trifluoromethylated Nitrostyrenes

## Special Topic

3793



## Synthesis

*Synthesis* **2022**, *54*, 3801–3808  
DOI: 10.1055/a-1689-3626

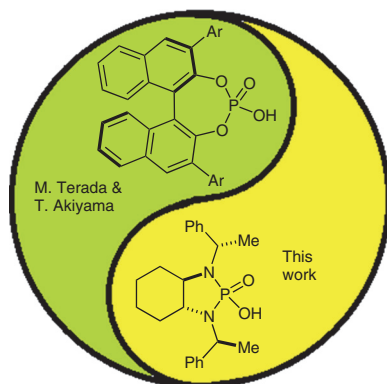
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## On the Synthesis of a Novel Chiral Phosphorodiamidic Acid Containing the $\alpha$ -Phenylethyl Moiety: Insights on its Conformation and Reactivity

## Special Topic

3801



## Synthesis

*Synthesis* **2022**, *54*, 3809–3816  
DOI: 10.1055/s-0040-1720028

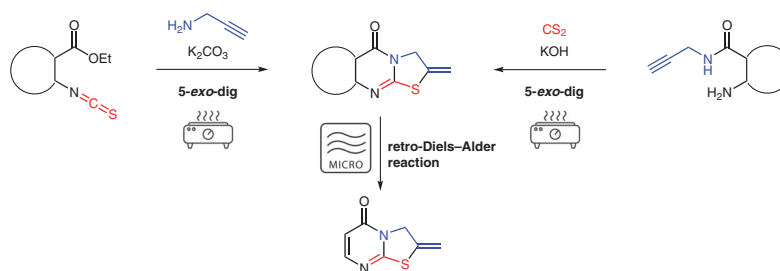
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## Synthesis of Alicyclic 2-Methylenethiazolo[2,3-*b*]quinazolinone Derivatives via Base-Promoted Cascade Reactions

## Special Topic

3809



## Synthesis

*Synthesis* **2022**, *54*, 3817–3822  
DOI: 10.1055/s-0040-1719890

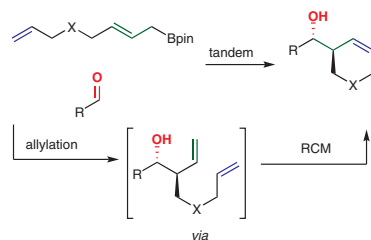
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## Heteroatom-Tethered $\omega$ -Alkenylallylboronates: Stereoselective Synthesis of Heterocyclic Derived Alcohols

## Special Topic

3817



## Synthesis

Synthesis 2022, 54, 3823–3830  
DOI: 10.1055/s-0040-1719886

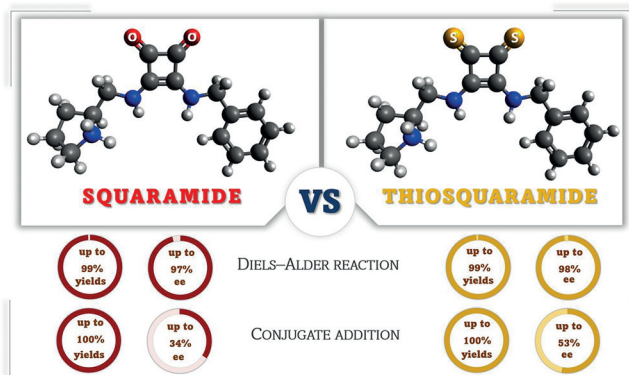
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## Application of Proline-Derived (Thio)squaramide Organocatalysts in Asymmetric Diels–Alder and Conjugate Addition Reactions

## Special Topic

3823



## Synthesis

Synthesis 2022, 54, 3831–3844  
DOI: 10.1055/s-0040-1719887

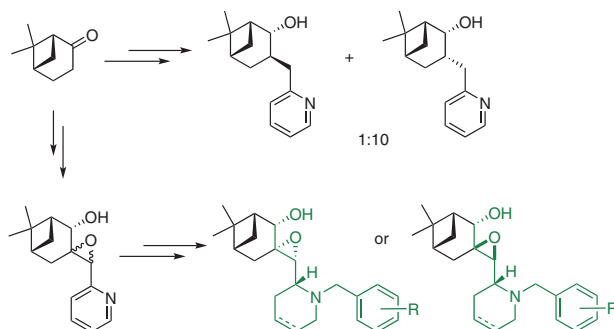
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## Stereoselective Synthesis and Applications of Pinane-Based Chiral 1,4-Amino Alcohol Derivatives

## Special Topic

3831



Expressed cytotoxic activity was observed on MDA-MB-231, MCF-7, and A2780 human cancer cell lines

## Synthesis

Synthesis 2022, 54, 3845–3857  
DOI: 10.1055/a-1742-2005

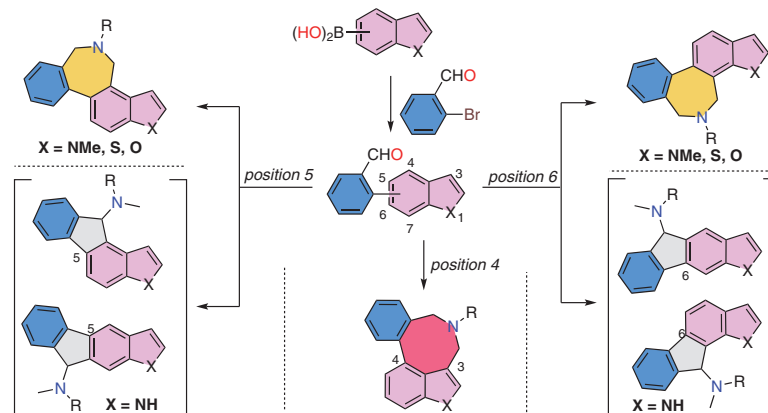
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Electrocyclization and Unexpected Reactions of Non-Stabilized  $\alpha,\beta,\gamma,\delta$ -Unsaturated Azomethine Ylides: Experimental and Theoretical Studies

## Special Topic

3845



Synthesis

Synthesis 2022, 54, 3858–3866  
DOI: 10.1055/a-1761-4672

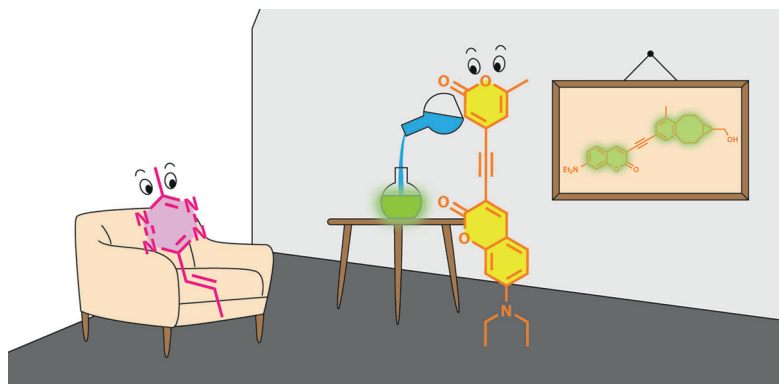
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Beyond the Bioorthogonal Inverse-Electron-Demand Diels–Alder Reactions of Tetrazines: 2-Pyrene-Functionalized Fluorogenic Probes

Special Topic

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Synthesis

Synthesis 2022, 54, 3867–3873  
DOI: 10.1055/s-0041-1737830

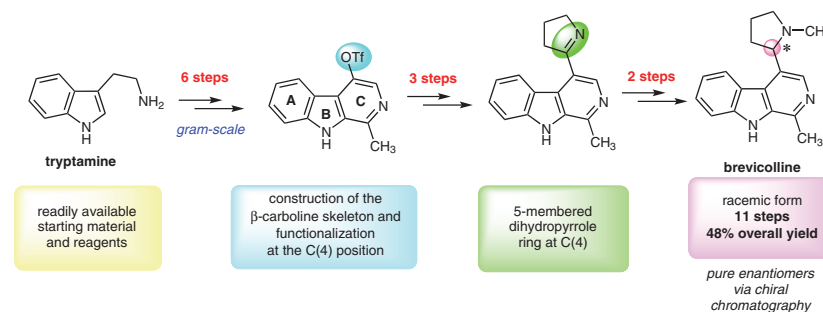
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Synthesis of Racemic and Enantiopure Forms of  $\beta$ -Carboline Alkaloid Brevicolline

Special Topic

3867



Synthesis

Synthesis 2022, 54, 3874–3882  
DOI: 10.1055/s-0040-1719885

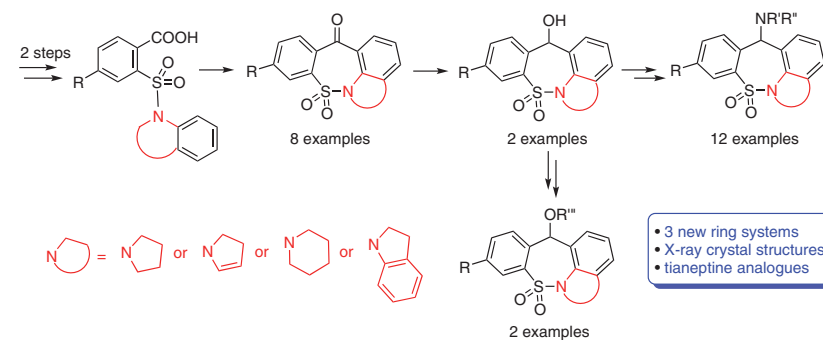
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Towards Tianeptine Analogues: Synthesis of New Ring Systems Containing a Dibenzo[*c,f*][1,2]thiazepine *S,S*-Dioxide Core

Special Topic

3874





## Synthesis

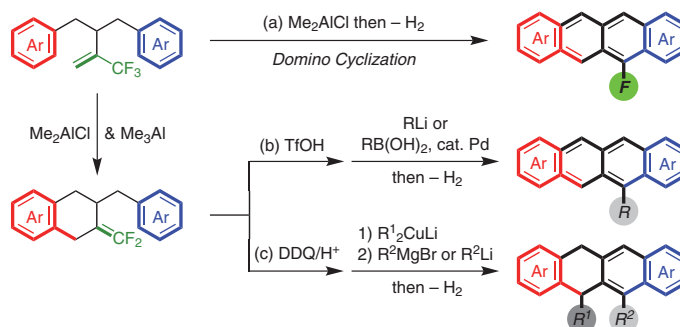
*Synthesis* 2022, 54, 3883–3898  
DOI: 10.1055/s-0037-1610791

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## Construction of Substituted [4]Acene Frameworks Based on Double Cationic Cyclizations of Fluoroalkenes

## Special Topic

3883



## Synthesis

*Synthesis* 2022, 54, 3899–3905  
DOI: 10.1055/a-1504-8924

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## Synthesis of Cyclic Phosphinates by Microwave-Assisted Ionic-Liquid-Promoted Alcoholysis

## Special Topic

3899

