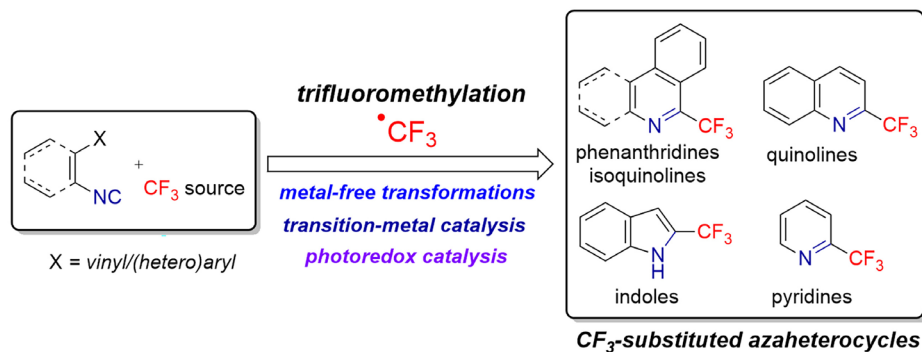


# Synthesis

Reviews and Full Papers in Chemical Synthesis

June 16, 2023 • Vol. 55, 1799–1948



Recent Advances in the Trifluoromethylation Reactions of Isonitriles To Construct  $\text{CF}_3$ -Substituted N-Heterocycles

K. Aradi, L. Kiss

12

## Synthesis

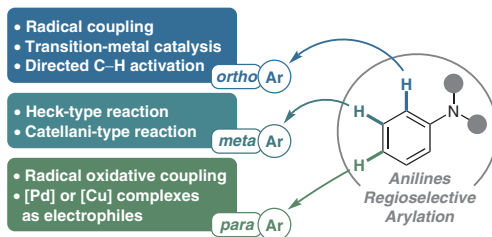
## Direct Arylation of C(sp<sup>2</sup>)-H Bonds in Anilines

## Review

*Synthesis* **2023**, 55, 1799–1823  
DOI: 10.1055/a-2039-7985

C. Jacob\*  
J. Annibaleto  
B. U. W. Maes  
G. Evano\*

Université Libre de Bruxelles  
(ULB), Belgium  
University of Antwerp, Belgium



1799

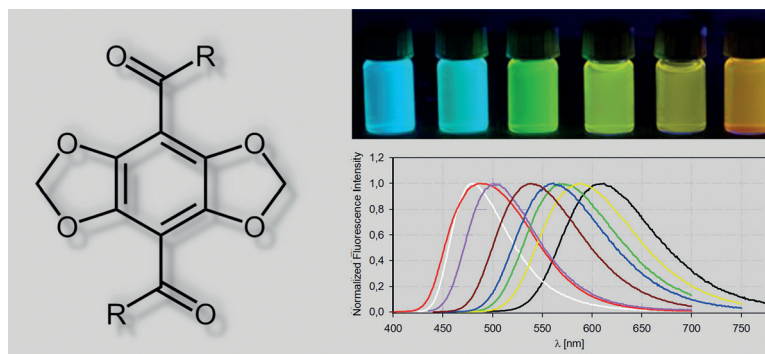
## Synthesis

## [1,3]-Dioxolo[4,5-f]benzodioxole (DBD) Fluorescent Dyes; Synthesis, Properties, and Applications

## Short Review

*Synthesis* **2023**, 55, 1824–1833  
DOI: 10.1055/s-0042-1751428

P. Wessig\*  
M. Lehmann  
Universität Potsdam, Germany



1824

## Synthesis

Synthesis 2023, 55, 1834–1843  
DOI: 10.1055/a-2020-9090

K. Aradi

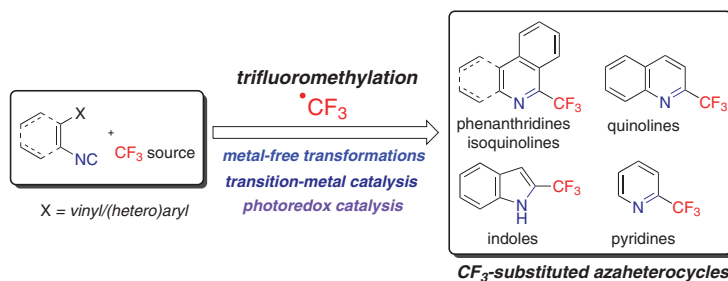
L. Kiss\*

Research Centre for Natural Sciences, Hungary

Recent Advances in the Trifluoromethylation Reactions of Isonitriles To Construct CF<sub>3</sub>-Substituted N-Heterocycles

Short Review

1834



## Synthesis

Synthesis 2023, 55, 1844–1854  
DOI: 10.1055/a-2042-3720

W. Zhou

Q.-W. Zhao

Y.-C. Luo

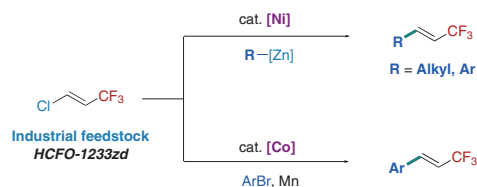
X. Zhang\*

Zhengzhou University,  
P. R. of China  
Shanghai Institute of Organic  
Chemistry, P. R. of China

## Synthesis of 1-(Trifluoromethyl)alkenes through Transition-Metal-Catalyzed Alkylation and Arylation of 1-Chloro-3,3,3-trifluoroprop-1-ene (HCFO-1233zd)

Feature

1844



## Synthesis

Synthesis 2023, 55, 1855–1862  
DOI: 10.1055/a-2012-5078

V. Magné

C. Bellanger

A. A. Hussein

N. Saffon-Merceron

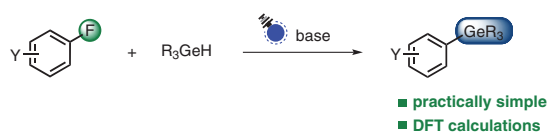
S. Lakhdar\*

CNRS/Université Paul Sabatier,  
France

## Visible-Light-Mediated Germanylation of Aryl Fluorides: Synthetic and Mechanistic Insights

Paper

1855



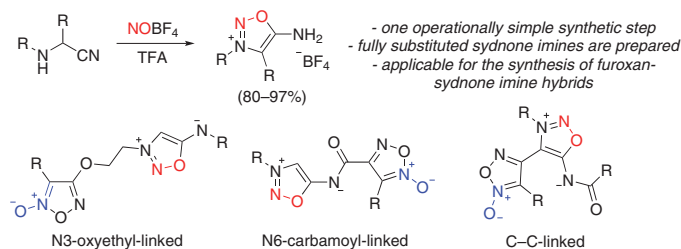
## Synthesis

Synthesis 2023, 55, 1863–1874  
DOI: 10.1055/a-2011-7264

A. D. Shuvaev  
E. S. Zhilin  
L. L. Fershtat\*

N.D. Zelinsky Institute of Organic Chemistry,  
Russian Federation

### NOBF<sub>4</sub>-Mediated Assembly of the Sydnone Imine Scaffold in the Synthesis of Double Nitric Oxide Donors



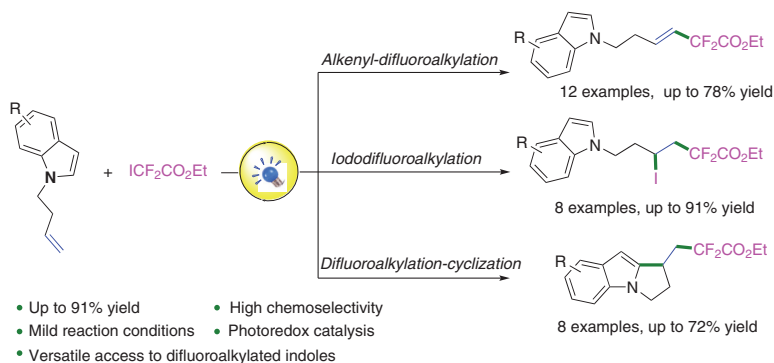
## Synthesis

Synthesis 2023, 55, 1875–1885  
DOI: 10.1055/a-2039-5229

J. Tong  
R. Luo  
L. Liu  
X. Yang  
J. Liao\*

Gannan Medical University,  
P. R. China  
Shaoguan University, P. R. China

### Photo-Induced Selective Difluoroalkylation of Unactivated Alkenes to Access Difluoroalkylated Indoles



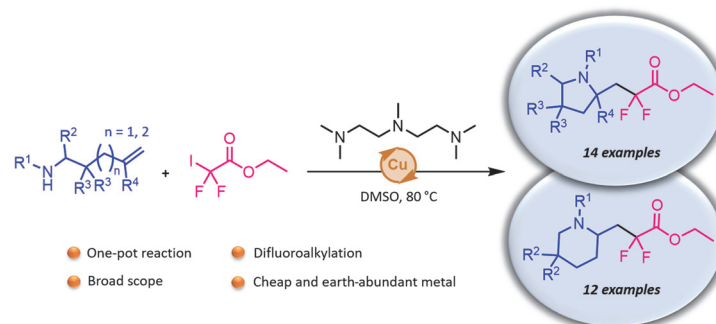
## Synthesis

Synthesis 2023, 55, 1886–1892  
DOI: 10.1055/a-2004-6031

M. M. Marchese  
S. Strähler  
L. Ghiba  
O. Riant\*

Université catholique de Louvain  
UCLouvain, Belgium

### Copper-Catalyzed Radical Cascade Annulation for the Preparation of Difluorinated Pyrrolidines and Piperidines



## Synthesis

Synthesis 2023, 55, 1893–1903  
DOI: 10.1055/a-2013-5801

S. Singh

G. Shukla

S. Ray

M. S. Singh\*

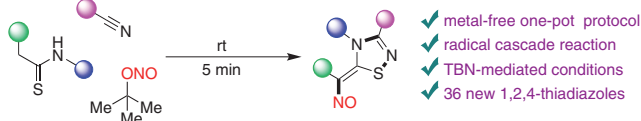
Banaras Hindu University, India

### Metal-Free Cascade Synthesis of 1,2,4-Thiadiazoles from $\beta$ -Ketothioamides and Alkyl/Aryl Cyanides under TBN Enabling Conditions at Room Temperature

Paper

1893

Cascade formation of 3 new bonds (2 C–N & 1 S–N)



## Synthesis

Synthesis 2023, 55, 1904–1914  
DOI: 10.1055/s-0042-1752403

R. Budhwan

M. Rawat

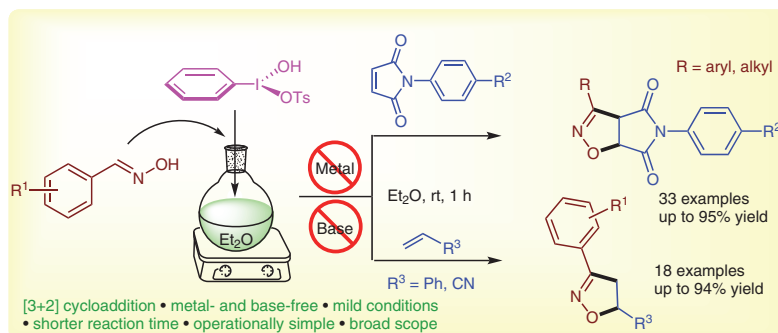
R. K. Peddinti\*

Indian Institute of Technology  
Roorkee, India

### Koser's Reagent Mediated Oxidation of Aldoximes: Synthesis of Isoxazolines by 1,3-Dipolar Cycloadditions

Paper

1904



## Synthesis

Synthesis 2023, 55, 1915–1921  
DOI: 10.1055/a-2014-3203

N. Sakai\*

K. Fukuda

Y. Ogiwara

K. Ishida

Tokyo University of Science  
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### Synthesis of Dithioacetals through Iodine-Promoted Insertion Reactions of Vinylsilane to Disulfides and its Application to Diselenoacetalization

Paper

1915



- metal-free conditions
- 1,1'-addition of disulfides and thiols
- application to 1,1'-addition of a diaryl selenide

## Synthesis

Synthesis of 1,1-Disubstituted Indenes via Palladium-Catalyzed Cross-Coupling of *ortho*-Alkenyl Bromobenzenes and  $\alpha$ -Aryl- $\alpha$ -diazoesters

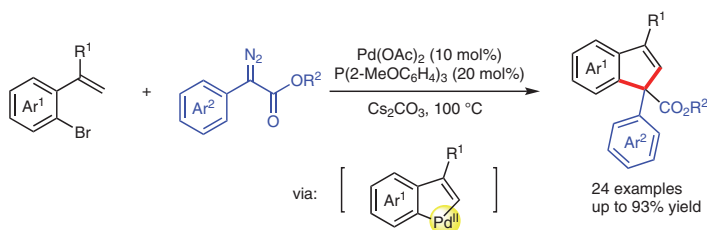
Paper

1922

*Synthesis* 2023, 55, 1922–1928  
DOI: 10.1055/a-2039-6271

X.-J. Feng  
J.-G. Fu  
Q. Zhao  
Y.-H. Lu  
S.-S. Zhang\*  
C.-G. Feng\*

Shanghai University of Traditional Chinese Medicine,  
P. R. of China



## Synthesis

## Enantioselective Synthesis of Dispirooxindole Derivatives via Asymmetric Catalytic Cascade Reactions

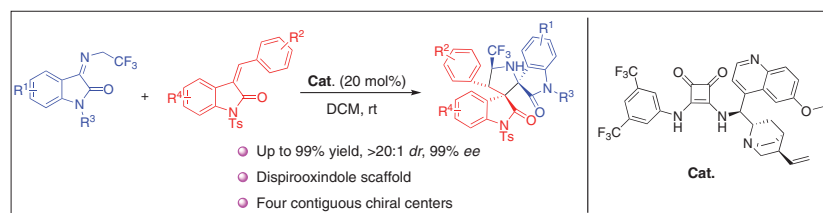
Paper

1929

*Synthesis* 2023, 55, 1929–1939  
DOI: 10.1055/a-2017-4738

R. Ma  
J.-L. Zhang  
X.-Q. Hu\*  
P.-F. Xu\*

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## Synthesis

## Aza-Wacker Cyclization Toward the Bridged Core of FR901483

Paper

1940

*Synthesis* 2023, 55, 1940–1948  
DOI: 10.1055/a-2012-5187

D. Shen  
C. Xie  
Z. Ruan  
C. Yang  
S.-H. Huang  
L. Zhu\*  
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