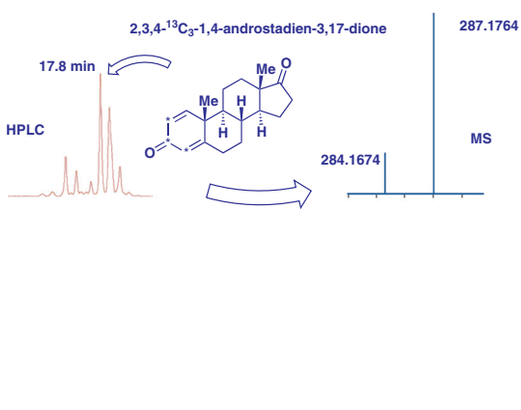
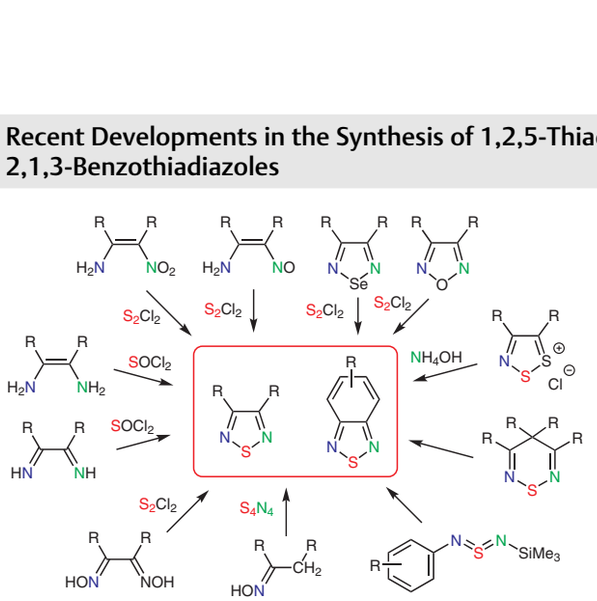
Synthesis

Reviews and Full Papers in Chemical Synthesis

2019
Vol. 51, No. 23
December I





Synthesis

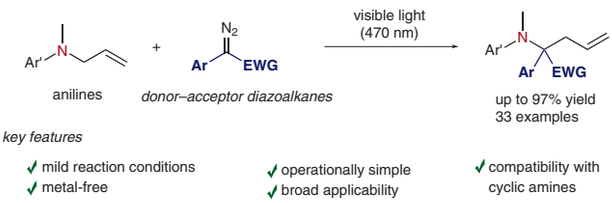
Synthesis **2019**, *51*, 4348–4358
DOI: 10.1055/s-0037-1610732

F. Li
F. He
R. M. Koenigs*
RWTH Aachen University, Germany

Catalyst-Free [2,3]-Sigmatropic Rearrangement Reactions of Photochemically Generated Ammonium Ylides

Feature

metal-free photochemical rearrangement reactions of ammonium ylides



key features

- ✓ mild reaction conditions
- ✓ metal-free
- ✓ operationally simple
- ✓ broad applicability
- ✓ compatibility with cyclic amines

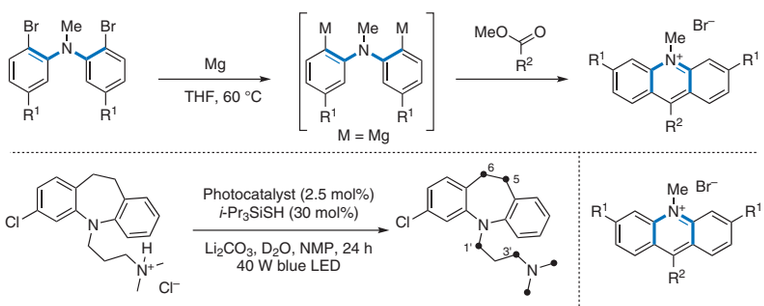
Synthesis

Synthesis **2019**, *51*, 4359–4365
DOI: 10.1055/s-0039-1690694

B. Zilate
C. Fischer
L. Schneider
C. Sparr*
University of Basel, Switzerland

Scalable Synthesis of Acridinium Catalysts for Photoredox Deuterations

PSP

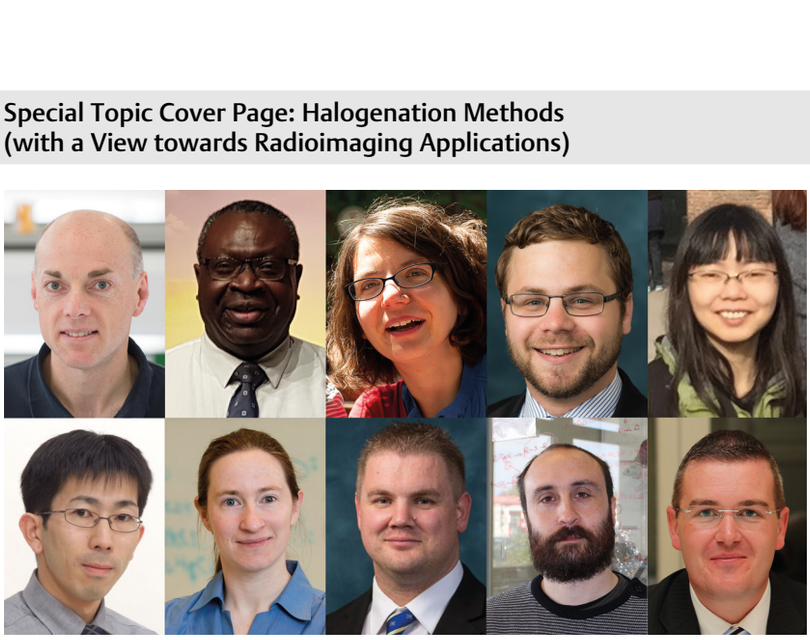


Synthesis

Synthesis **2019**, *51*, 4366–4367
DOI: 10.1055/s-0039-1689994

Special Topic Cover Page: Halogenation Methods (with a View towards Radioimaging Applications)

Special Topic



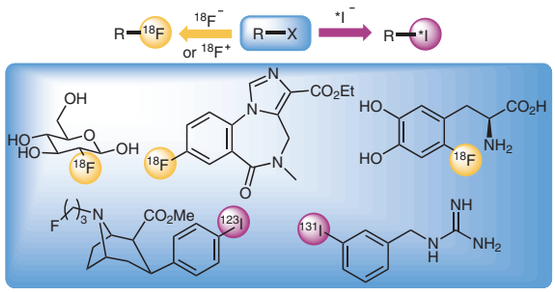
Synthesis

Synthesis **2019**, *51*, 4368–4373
DOI: 10.1055/s-0037-1611885

A. Sutherland*
University of Glasgow, UK

Radiohalogenation of Organic Compounds: Practical Considerations and Challenges for Molecular Imaging

Special Topic



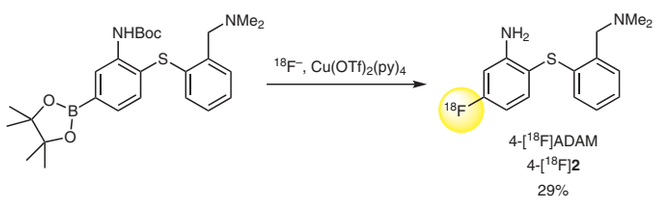
Synthesis

Synthesis **2019**, *51*, 4374–4384
DOI: 10.1055/s-0039-1690522

S. Milicevic Sephton*
X. Zhou
S. Thompson
F. I. Aigbirhio
University of Cambridge, UK

Preparation of the Serotonin Transporter PET Radiotracer 2-([2-[(Dimethylamino)methyl]phenyl]thio)-5-[^{18}F]fluoroaniline (4-[^{18}F]ADAM): Probing Synthetic and Radiosynthetic Methods

Special Topic



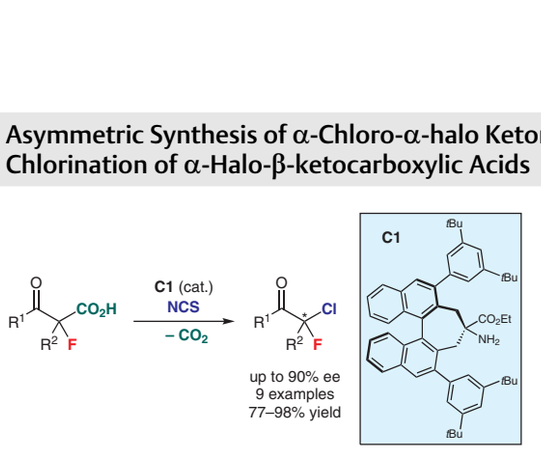
Synthesis

Synthesis **2019**, *51*, 4385–4392
DOI: 10.1055/s-0039-1690009

K. Kitahara
H. Mizutani
S. Iwasa
K. Shibatomi*
Toyohashi University of Technology, Japan

Asymmetric Synthesis of α-Chloro-α-halo Ketones by Decarboxylative Chlorination of α-Halo-β-ketocarboxylic Acids

Special Topic



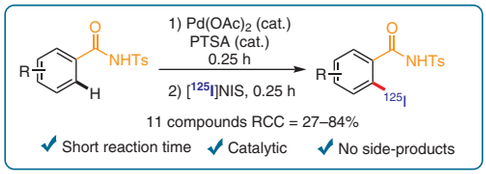
Synthesis

Synthesis **2019**, *51*, 4393–4400
DOI: 10.1055/s-0037-1611884

Improvements of C–H Radio-Iodination of *N*-Acylsulfonamides toward Implementation in Clinics

Special Topic

E. Dubost
V. Babin
F. Benoist
A. Hébert
G. Pigrée
J.-P. Bouillon
F. Fabis
T. Cailly*
Normandie Univ, France
CHU Côte de Nacre, France



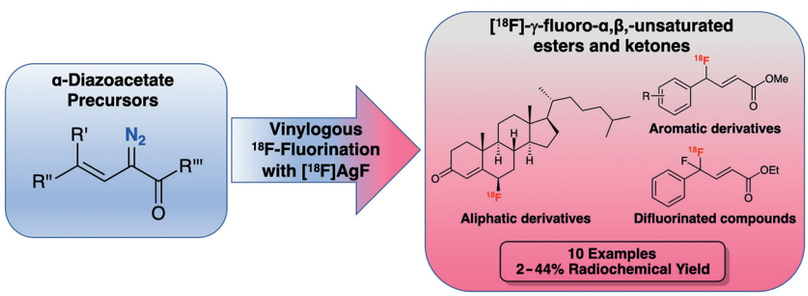
Synthesis

Synthesis **2019**, *51*, 4401–4407
DOI: 10.1055/s-0039-1690012

Synthesis of [^{18}F]-γ-Fluoro-α,β-unsaturated Esters and Ketones via Vinylogous ^{18}F-Fluorination of α-Diazoacetates with [^{18}F]AgF

Special Topic

S. Thompson
S. J. Lee
I. M. Jackson
N. Ichiishi
A. F. Brooks
M. S. Sanford*
P. J. H. Scott*
University of Michigan Medical School, USA
University of Michigan, USA



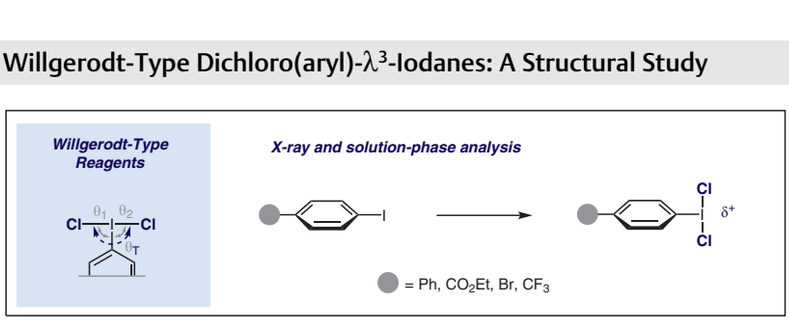
Synthesis

Synthesis **2019**, *51*, 4408–4416
DOI: 10.1055/s-0037-1611886

Willgerodt-Type Dichloro(aryl)-λ^3-Iodanes: A Structural Study

Special Topic

J. C. Sarie
J. Neufeld
C. G. Daniliuc
R. Gilmour*
Westfälische Wilhelms-Universität Münster, Germany



Synthesis

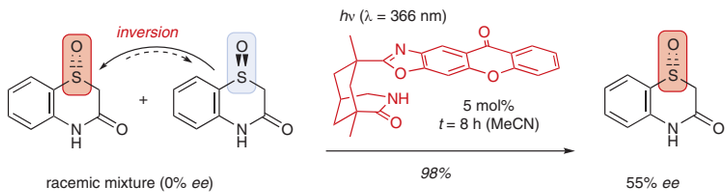
Synthesis **2019**, *51*, 4417–4424
DOI: 10.1055/s-0039-1690034

Photochemical Deracemization of Chiral Sulfoxides Catalyzed by a Hydrogen-Bonding Xanthone Sensitizer

Paper

4417

L. Wimberger
T. Kratz
T. Bach*
Technische Universität München, Germany



Synthesis

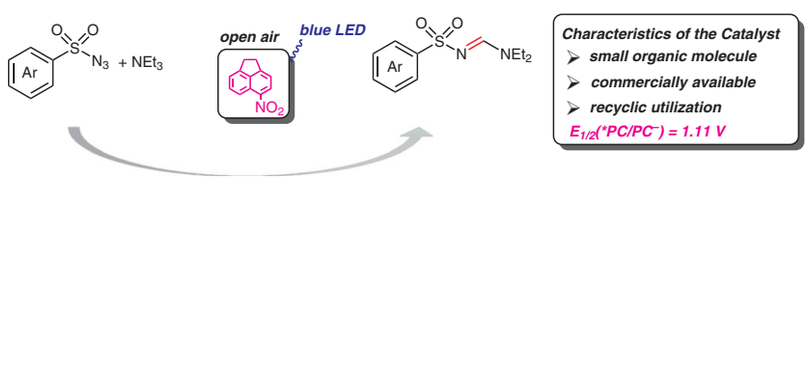
Synthesis **2019**, *51*, 4425–4433
DOI: 10.1055/s-0039-1690984

Nitroacenaphthene as a New Photocatalyst for the Synthesis of Sulfonyl Amidines

Paper

4425

Y. Jian
M. Chen
C. Yang*
W. Xia*
Harbin Institute of Technology (Shenzhen), P. R. of China



Synthesis

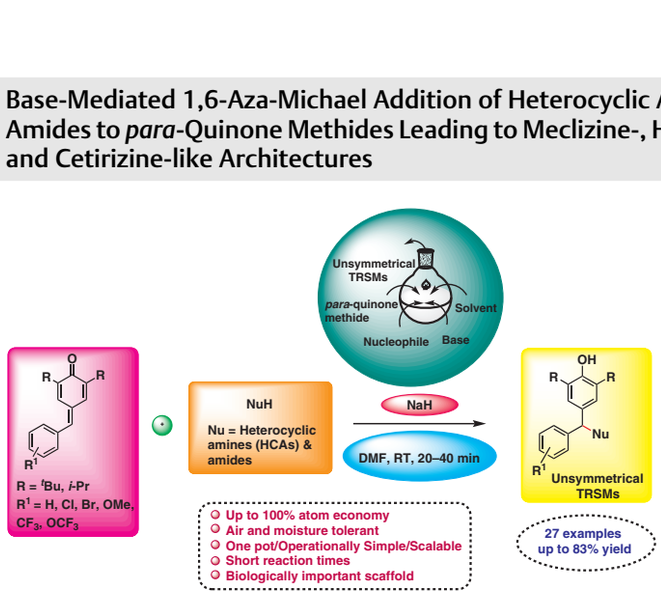
Synthesis **2019**, *51*, 4434–4442
DOI: 10.1055/s-0039-1690677

Base-Mediated 1,6-Aza-Michael Addition of Heterocyclic Amines and Amides to *para*-Quinone Methides Leading to Meclizine-, Hydroxyzine- and Cetirizine-like Architectures

Paper

4434

D. Roy
G. Panda*
CSIR-Central Drug Research Institute, India



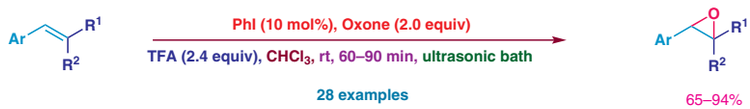
Synthesis

Synthesis **2019**, *51*, 4473–4486
DOI: 10.1055/s-0039-1690621

Hypervalent Iodine(III)-Catalyzed Epoxidation of β-Cyanostyrenes

Paper

S. R. Mangaonkar
F. V. Singh*
VIT Institute, India



R^1 = CN, CO_2Et; R^2 = H, CN; Ar = Ph, 4-FC_6H_4, 2-ClC_6H_4, 4-ClC_6H_4, 2,3-$(Cl)_2C_6H_3$, 3-BrC_6H_4, 4-BrC_6H_4, 4-NCC_6H_4, 3-HOC_6H_4, 4-MeC_6H_4, 3,4-$(MeO)_2C_6H_3$, 3,4,5-$(MeO)_3C_6H_2$, 2,3,4-$(MeO)_3C_6H_2$, 4-$(BnO)C_6H_4$, 3-(HO)-4-$(MeO)C_6H_3$, 1-Naphthyl, 2-Naphthyl, 9-Anthryl

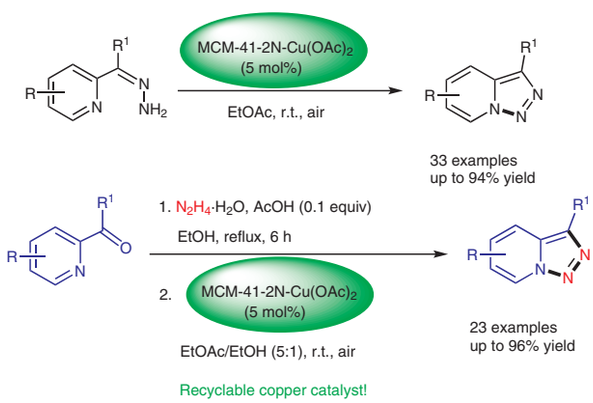
Synthesis

Synthesis **2019**, *51*, 4487–4497
DOI: 10.1055/s-0037-1610726

Recyclable Heterogeneous Copper(II)-Catalyzed Oxidative Cyclization of 2-Pyridine Ketone Hydrazones Towards [1,2,3]Triazolo[1,5-*a*]pyridines

Paper

G. Jiang
Y. Lin
M. Cai*
H. Zhao*
Guangdong Pharmaceutical University, P. R. of China
Jiangxi Normal University, P. R. of China



Synthesis

Synthesis **2019**, *51*, 4498–4506
DOI: 10.1055/s-0037-1610727

Niobium Pentachloride Mediated (Hetero)aromatic Aldehyde Friedel–Crafts Hydroxyalkylation with Arenes: An Efficient Strategy to Synthesize Triarylmethanes

Paper

S. M. M. Rodrigues*
D. Previdi
G. S. Baviera
A. A. Matias
P. M. Donate
Universidade de São Paulo, Brazil