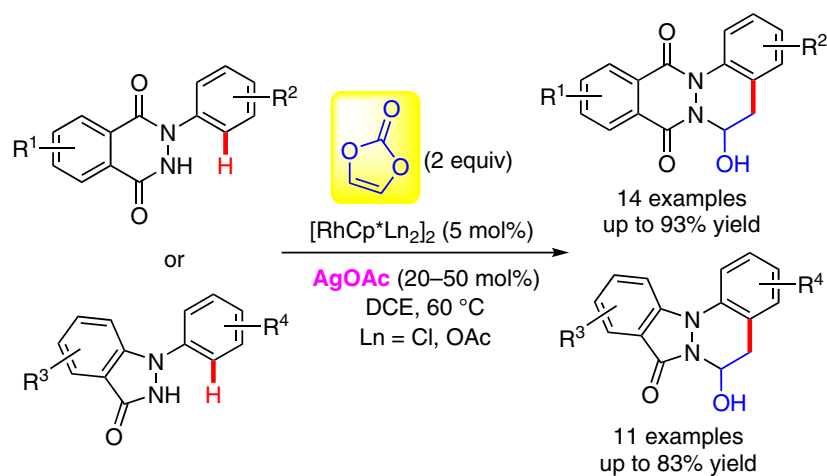


# Synthesis

Reviews and Full Papers in Chemical Synthesis

October 19, 2022 • Vol. 54, 4401–4628



Assembly of the Hydroxycinnoline Core via Hydrazide-Assisted Rh(III)-Catalyzed C–H Functionalization and Annulation

S. Kim, H. K. Park, J. Y. Kang, N. K. Mishra, I. S. Kim

20

## Synthesis

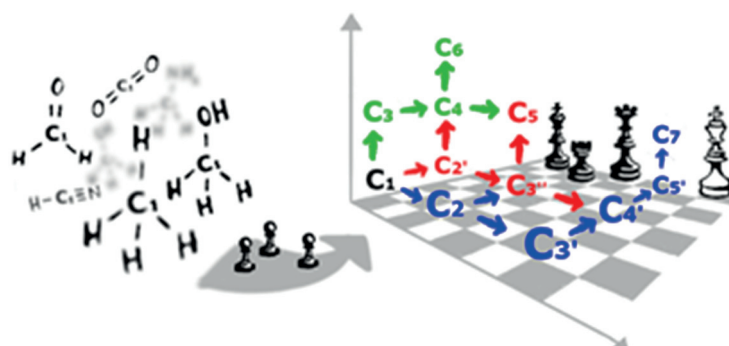
### Biocatalytic One-Carbon Transfer – A Review

#### Review

*Synthesis* 2022, 54, 4401–4425  
DOI: 10.1055/s-0040-1719884

**P. Germer**  
**J. N. Andexer**  
**M. Müller\***  
University of Freiburg, Germany

4401



## Synthesis

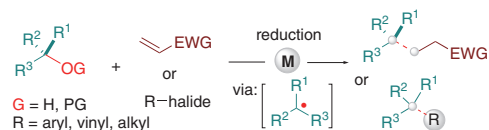
### Recent Progress on Transition-Metal-Mediated Reductive C(sp<sup>3</sup>)-O Bond Radical Addition and Coupling Reactions

#### Short Review

*Synthesis* 2022, 54, 4426–4446  
DOI: 10.1055/a-1848-3005

**L. Cheng**  
**Q. Lin**  
**Y. Chen\***  
**H. Gong\***  
Shanghai University,  
P. R. of China

4426



## Synthesis

Synthesis 2022, 54, 4447–4460  
DOI: 10.1055/s-0042-1751355

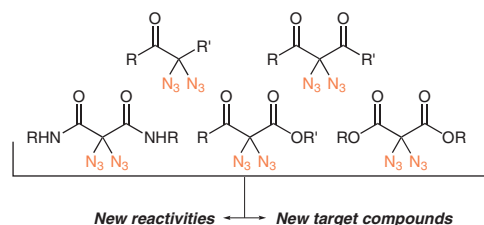
K. Bensberg  
S. F. Kirsch\*

Bergische Universität Wuppertal,  
Germany

## Reactions with Geminal Diazides: Long Known, Full of Surprises, and New Opportunities

Short Review

4447



## Synthesis

Synthesis 2022, 54, 4461–4471  
DOI: 10.1055/a-1811-7948

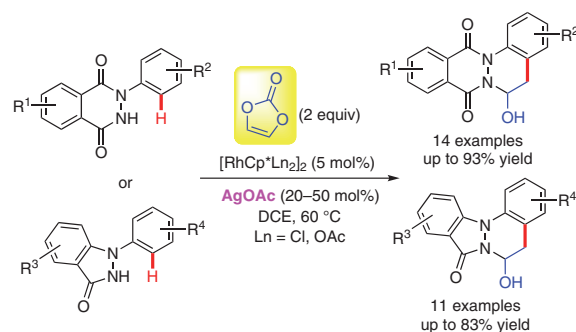
S. Kim  
H. K. Park  
J. Y. Kang  
N. K. Mishra\*  
I. S. Kim\*

Sungkyunkwan University,  
Republic of Korea

## Assembly of the Hydroxycinnoline Core via Hydrazide-Assisted Rh(III)-Catalyzed C–H Functionalization and Annulation

Feature

4461



## Synthesis

Synthesis 2022, 54, 4472–4480  
DOI: 10.1055/a-1790-2282

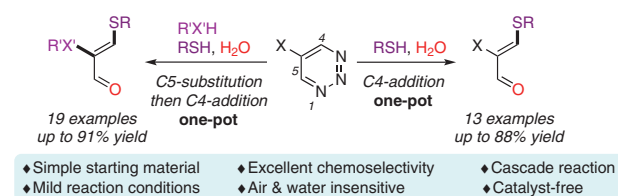
H. Luo  
Q. Lu  
M. Xu  
M. Gu  
B. Li\*

Chongqing University,  
P. R. of China

## Facile Access to $\alpha$ -Substituted $\beta$ -Thio Enals from 1,2,3-Triazines and Thiols

Feature

4472



## Synthesis

*Synthesis* 2022, 54, 4481–4494  
DOI: 10.1055/a-1883-1357

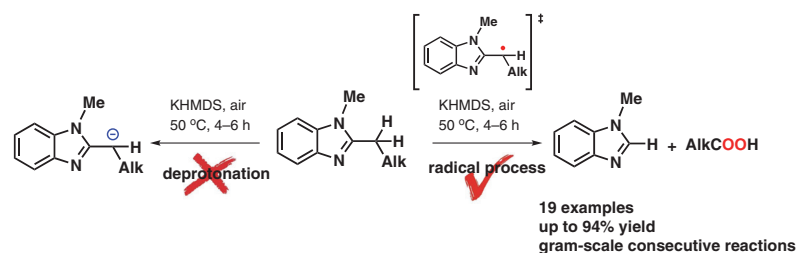
X. Fu  
D. Guo  
Y. Yan  
T. Marselo  
M. Zhang  
Z. Zhang  
S. Li  
J. Huang\*

Tianjin University, P. R. of China  
Collaborative Innovation Center of Chemical Science and Engineering (Tianjin), P. R. of China  
Tianjin Key Laboratory for Modern Drug Delivery & High-Efficiency, P. R. of China

## Carbon Chain Rupture: Base-Induced Radical C–C Bond Cleavage of Alkylbenzimidazoles

Paper

4481



## Synthesis

*Synthesis* 2022, 54, 4495–4502  
DOI: 10.1055/a-1878-8084

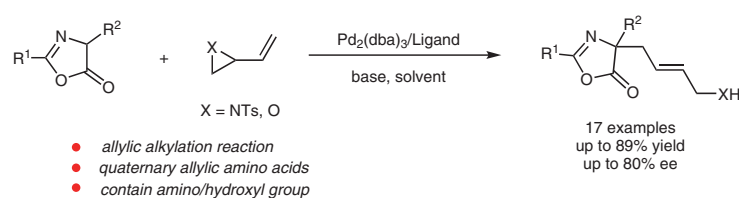
K.-X. Huang\*  
Z.-Y. Chen  
X.-G. Liu  
H.-Y. Ye  
W.-C. Gao\*

Nanyang Institute of Technology, P. R. of China  
Nanyang Normal University, P. R. of China

## Construction of Quaternary Allylic Amino Acid Derivatives through Palladium-Catalyzed Allylic Alkylation Reaction of Azlactones with Vinyl Aziridine

Paper

4495



## Synthesis

*Synthesis* 2022, 54, 4503–4508  
DOI: 10.1055/a-1863-4082

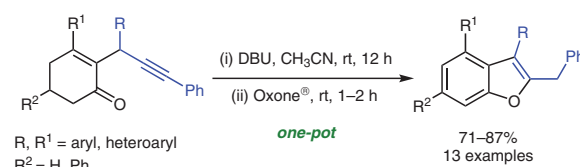
C. R. Reddy\*  
K. Wadekar  
K. Nair  
Y. L. Prapurna

CSIR-Indian Institute of Chemical Technology (CSIR-IICT), India  
Academy of Scientific and Innovative Research (AcSIR), India

## A Sequential Cycloisomerization/Oxidative Aromatization of 2-Propargyl-cyclohexenones for Direct Access to Substituted Benzofurans

Paper

4503



## Synthesis

## A Novel and Practical Synthesis of Tryptanthrin

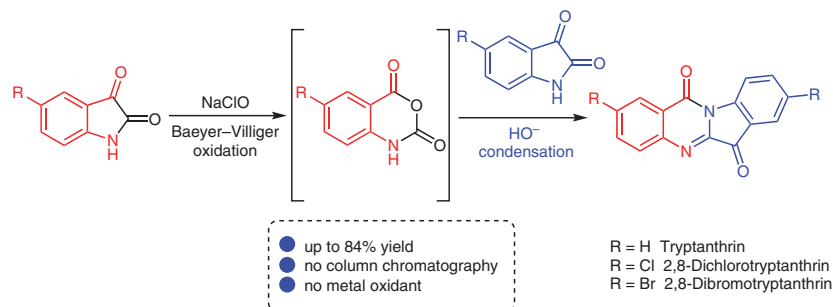
Paper

*Synthesis* 2022, 54, 4509–4512  
DOI: 10.1055/a-1878-8448

4509

Y. He  
S. Chen  
Y. Gao  
S. Gui  
Y. Feng\*

Hefei University of Technology,  
P. R. of China



## Synthesis

Metal- and Additive-Free Intermolecular Aziridination of Olefins Using *N*-Boc-*O*-tosylhydroxylamine

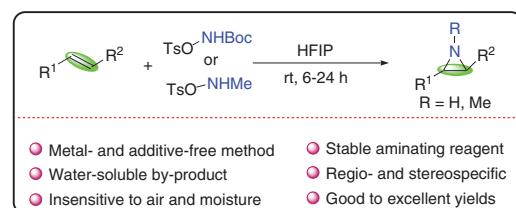
Paper

*Synthesis* 2022, 54, 4513–4520  
DOI: 10.1055/a-1879-7974

4513

J. L. Jat\*  
D. Chandra  
P. Kumar  
V. Singh  
B. Tiwari\*

Babasaheb Bhimrao Ambedkar  
University (A Central University),  
India  
Centre of Biomedical Research,  
India



## Synthesis

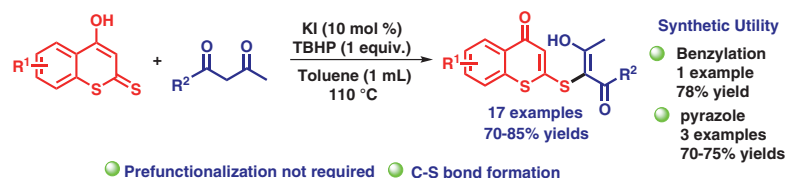
 $\alpha$ -Sulfonylation between 4-Hydroxydithiocoumarin and 1,3-Dicarbonyl Compounds: A Key Precursor for the Synthesis of New Pyrazole Derivatives

Paper

*Synthesis* 2022, 54, 4521–4528  
DOI: 10.1055/s-0040-1719935

4521

S. Mondal  
A. T. Khan\*  
Indian Institute of Technology  
Guwahati, India



## Synthesis

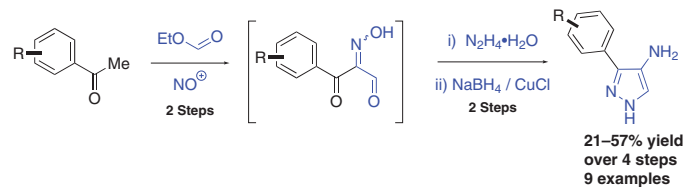
## Synthesis of 3-Aryl-Substituted 4-Aminopyrazoles from Acetophenones

Paper

*Synthesis* 2022, 54, 4529–4538  
DOI: 10.1055/s-0040-1719937

A. Stumpf\*  
D. Xu  
T. A. Tuck  
H. Zhang

Genentech, Inc., USA



4529

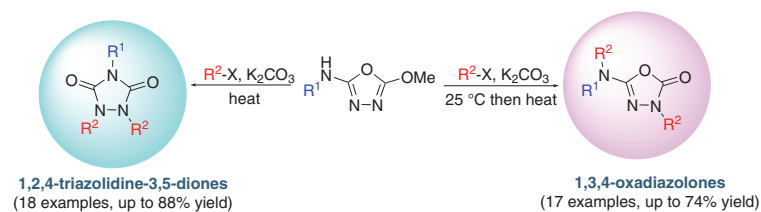
## Synthesis

## 5-Amino-Substituted 2-Methoxy-1,3,4-oxadiazoles as Common Precursors Toward 1,3,4-Oxadiazol-2(3H)-ones and 1,2,4-Triazolidine-3,5-diones

Paper

*Synthesis* 2022, 54, 4539–4550  
DOI: 10.1055/a-1874-6399

D. Yamano  
S. Jaita  
S. Hongsibsong  
S. Yimklan  
W. Phakhodee  
M. Pattarawarapan\*  
Chiang Mai University, Thailand



4539

## Synthesis

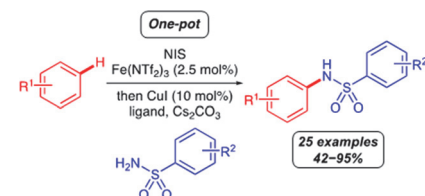
## One-Pot Synthesis of Diaryl Sulfonamides using an Iron- and Copper-Catalyzed Aryl C–H Amidation Process

Paper

*Synthesis* 2022, 54, 4551–4560  
DOI: 10.1055/a-1884-6988

L. J. N. Waddell  
M. C. Henry  
M. A. B. Mostafa  
A. Sutherland\*

University of Glasgow, UK



4551

## Synthesis

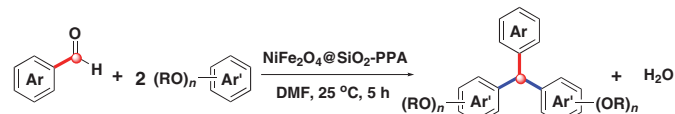
## Gram-Scale Synthesis of Substituted Triarylmethanes

## Paper

*Synthesis* 2022, 54, 4561–4575  
DOI: 10.1055/a-1863-3443

M.-Y. Chang\*  
C.-Y. Lin  
S.-M. Chen

Kaohsiung Medical University,  
Taiwan  
Kaohsiung Medical University  
Hospital, Taiwan



- green condition
- high yield
- gram-scale synthesis
- > 50 examples
- facile-operational
- open-vessel
- by-product is water
- environmentally friendly

4561

## Synthesis

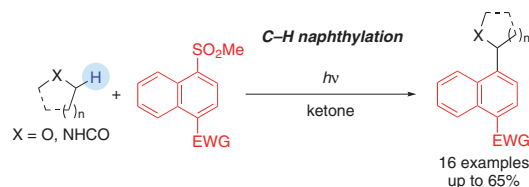
Aryl Ketone Mediated Light-Driven Naphthylation of C(sp<sup>3</sup>)-H Bonds Attached to either Oxygen or Nitrogen Substituents

## Paper

*Synthesis* 2022, 54, 4576–4582  
DOI: 10.1055/a-1874-4935

M. Azami  
T. Murafuji  
S. Kamijo\*

Yamaguchi University, Japan



4576

## Synthesis

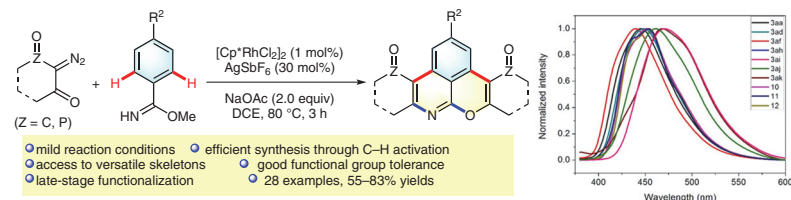
## Assembly of Pyran-Fused Isoquinolines via Rhodium-Catalyzed Double Annulations of Methyl Benzimidates with Diazo Compounds

## Paper

*Synthesis* 2022, 54, 4583–4591  
DOI: 10.1055/a-1844-5837

Y. Wu  
E. Zhang  
J. Duan  
K. Xu  
X. He\*  
Y. Shang\*

Anhui Normal University,  
P. R. of China  
Hunan Normal University,  
P. R. of China



- mild reaction conditions
- efficient synthesis through C–H activation
- access to versatile skeletons
- good functional group tolerance
- late-stage functionalization
- 28 examples, 55–83% yields

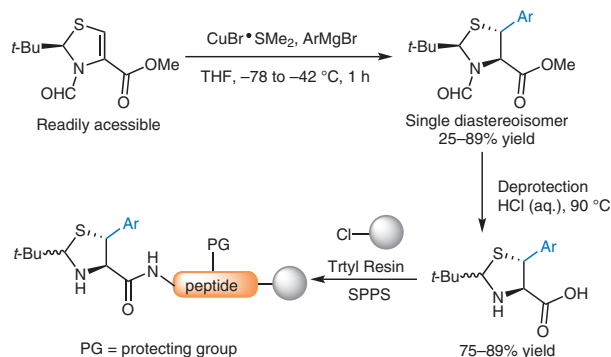
4583

Synthesis 2022, 54, 4592–4600  
DOI: 10.1055/s-0041-1738655

M. Zheng  
H. Yin  
S. Wang  
P. Wang\*

Shanghai Jiao Tong University,  
China

4592

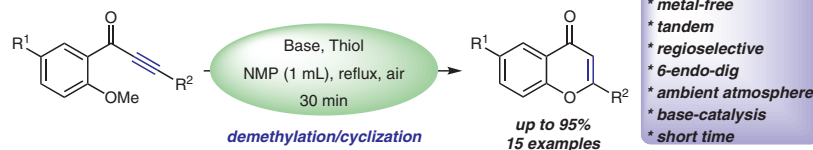


Synthesis 2022, 54, 4601–4607  
DOI: 10.1055/a-1874-5283

R. Heck  
T. Anjos  
M. R. Giehl  
R. F. Schumacher  
B. Godoi\*

Federal University of Fronteira  
Sul, Brazil

4601

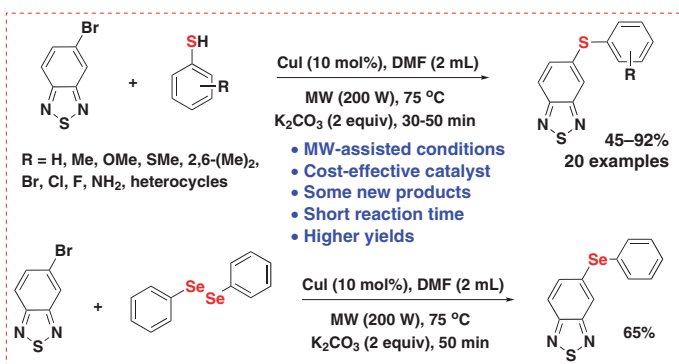


Synthesis 2022, 54, 4608–4614  
DOI: 10.1055/s-0040-1720029

R. Katla  
R. Katla  
N. L. C. Domingues\*

Federal University of Grande  
Dourados-UFGD, Brazil

4608





## Synthesis

*Synthesis* 2022, 54, 4615–4621  
DOI: 10.1055/s-0041-1738398

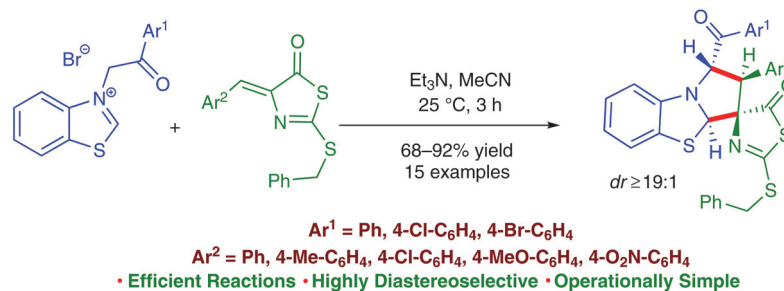
I. Yavari\*  
H. Shirazi  
S. Sheikhi  
Z. Taheri

Tarbiat Modares University, Iran

### Diastereoselective Synthesis of Spiro[benzopyrrolothiazole-thioazlactone] Derivatives from Erlenmeyer Thioazlactones and Azomethine Ylides

Paper

4615



## Synthesis

*Synthesis* 2022, 54, 4622–4628  
DOI: 10.1055/a-1882-8128

Y. Nassar  
F. Fache  
B. Pelotier  
O. Piva\*

Univ. Lyon, France

### Access to Hexahydroindeno[2,1-c]pyran-Based Propellanes by a Domino Prins/Friedel–Crafts Cyclization

Paper

4622

