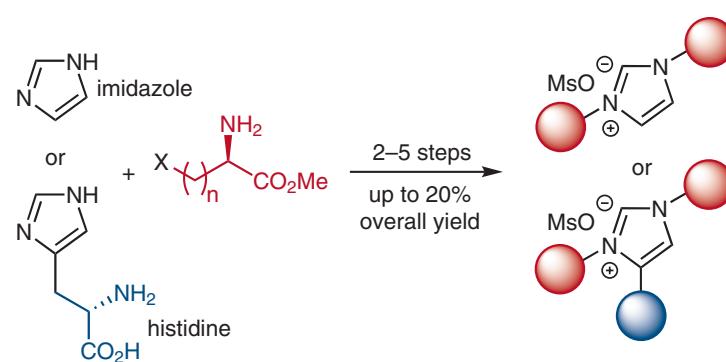


# Synthesis

Reviews and Full Papers in Chemical Synthesis

July 1, 2021 • Vol. 53, 2167–2318



Synthesis of Imidazole and Histidine-Derived Cross-Linkers as Analogues of GOLD and Desmosine

*N. Schädel, E. Icik, M. Martini, L. Altevogt, I. Ramming, A. Greulich, A. Baro, U. Bilitewski, S. Laschat*

13

 Thieme

**Synthesis**

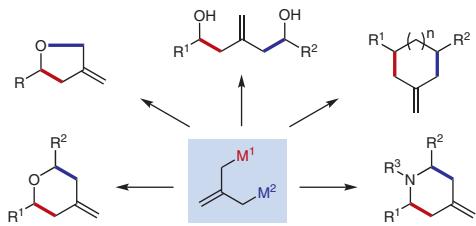
*Synthesis* 2021, 53, 2167–2192  
DOI: 10.1055/a-1389-1438

J. Liu  
M. Chen\*  
Auburn University, USA

1,3-Bifunctional Nucleophilic Allylation Reagents: Preparative Methods and Synthetic Applications

Short Review

2167



**Synthesis**

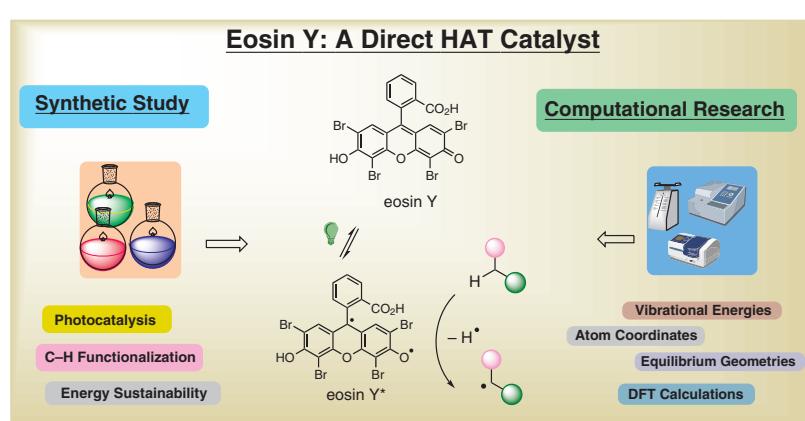
*Synthesis* 2021, 53, 2183–2191  
DOI: 10.1055/a-1385-9398

J. Inoa  
G. Dominici  
R. Eldabagh  
J. J. Foley IV \*  
Y. Xing \*  
William Paterson University, USA

Synthetic Applications and Computational Perspectives on Eosin Y Induced Direct HAT Process

Short Review

2183



**Synthesis**

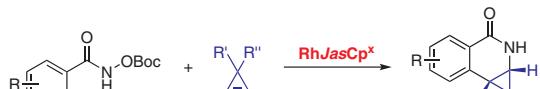
*Synthesis* 2021, 53, 2192–2200  
DOI: 10.1055/s-0040-1706026

**Rhodium(III)-Catalyzed Enantioselective Benzamidation of Cyclopropanes****Feature**

2192

**S. Shaaban****H. Li****C. Merten****A. P. Antonchick\*****H. Waldmann\***

Max Planck Institute of Molecular  
Physiology, Germany  
Technical University Dortmund,  
Germany  
Nottingham Trent University, UK



14 examples  
up to 90% ee  
up to >20:1 dr

**Synthesis**

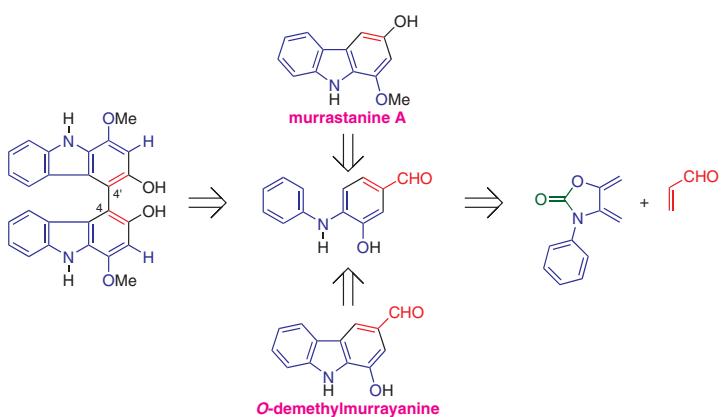
*Synthesis* 2021, 53, 2201–2211  
DOI: 10.1055/a-1385-9052

**Total Synthesis of the Natural Carbazoles O-Demethylmurrayanine and Murrastanine A, and of a C4,C4' Symmetric Murrastanine A Dimer from N-Phenyl-4,5-dimethylene-1,3-oxazolidin-2-one****Paper**

2201

**J. L. Avila-Melo****A. Benavides\*****A. Fuentes-Gutiérrez****J. Tamariz****H. A. Jiménez-Vázquez\***

Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional, México

**Synthesis**

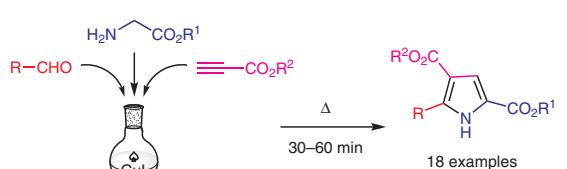
*Synthesis* 2021, 53, 2212–2218  
DOI: 10.1055/a-1331-7346

**Mild and Efficient Copper-Catalyzed Synthesis of Trisubstituted Pyrroles****Paper**

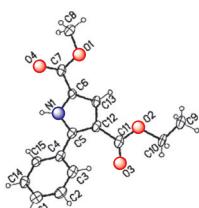
2212

**M.-H. Hsu\*****M. Kapoor****T. K. Pradhan****M.-H. Tse****H.-Y. Chen****M.-J. Yan****Y.-T. Cheng****Y.-C. Lin****C.-Y. Hsieh****K.-Y. Liu****C.-C. Han**

National Changhua University of  
Education, Taiwan

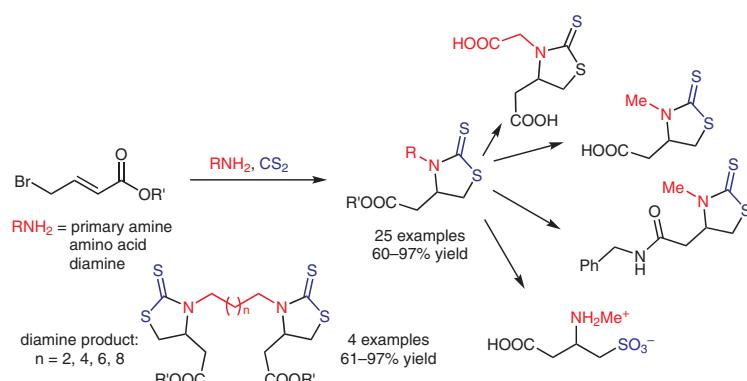


18 examples  
75–92% yields

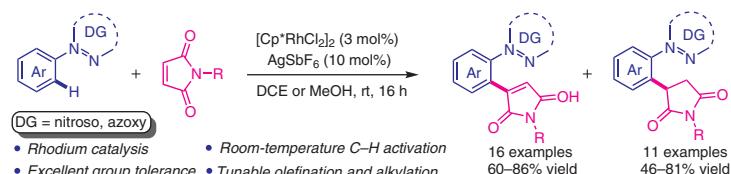


**M. Khalili Foumeshi**  
**A. Ziyaei Halimehjani\***  
**A. Alaei**  
**B. Klepetářová**  
**P. Beier\***

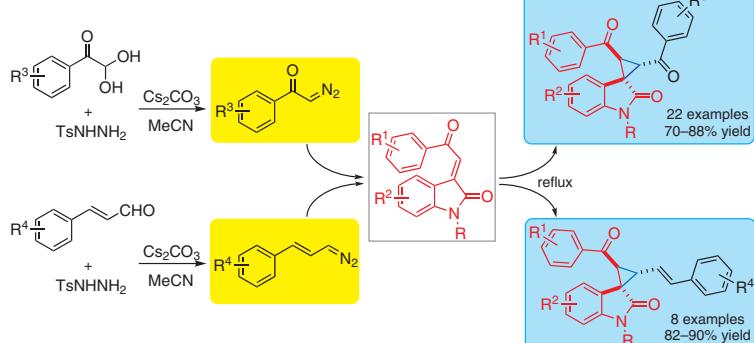
Kharazmi University, Iran  
 Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences, Czech Republic  
 Albert-Ludwigs-Universität Freiburg, Germany



**W. Zhang**  
**X. Liu**  
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**S. Pramanik**  
**S. Ray**  
**S. Maity**  
**P. Ghosh**  
**C. Mukhopadhyay\***  
 University of Calcutta, India



**Synthesis**

*Synthesis* 2021, 53, 2253–2259  
DOI: 10.1055/a-1348-4311

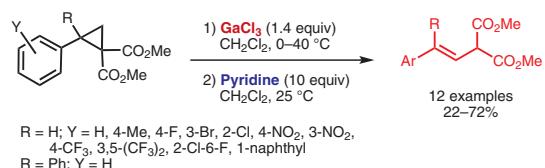
D. D. Borisov  
G. R. Chermashentsev  
R. A. Novikov\*  
Y. V. Tomilov\*

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

### Synthesis of Substituted $\beta$ -Styrylmalonates by Sequential Isomerization of 2-Arylcyclopropane-1,1-dicarboxylates and (2-Arylethylidene)-malonates

Paper

2253

**Synthesis**

*Synthesis* 2021, 53, 2260–2268  
DOI: 10.1055/s-0040-1706144

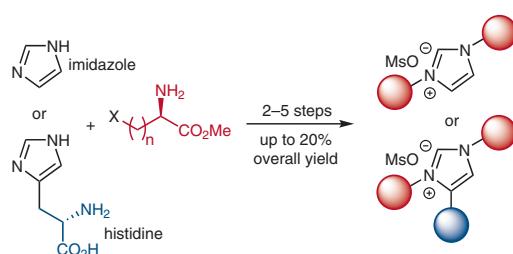
N. Schädel  
E. Icik  
M. Martini  
L. Altevogt  
I. Ramming  
A. Greulich  
A. Baro  
U. Bilitewski\*  
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Universität Stuttgart, Germany  
Helmholtz Zentrum für  
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### Synthesis of Imidazole and Histidine-Derived Cross-Linkers as Analogues of GOLD and Desmosine

Paper

2260

**Synthesis**

*Synthesis* 2021, 53, 2269–2276  
DOI: 10.1055/a-1385-6119

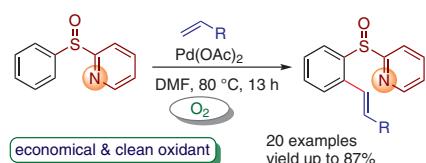
M. Yadav  
R. S. Jat  
B. Sarma  
M. Bhanuchandra\*

Central University of Rajasthan,  
India

### 2-Pyridyl Sulfoxide Directed Pd(II)-Catalyzed C–H Olefination of Arenes with Molecular Oxygen as the Sole Oxidant

Paper

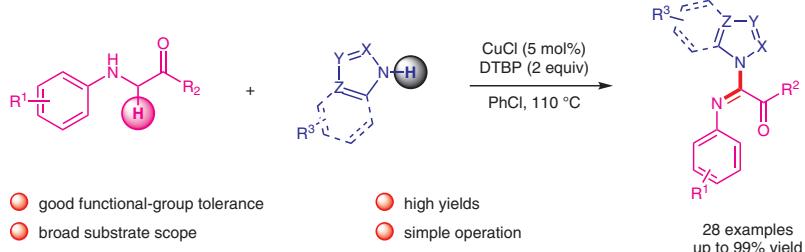
2269



Synthesis 2021, 53, 2277–2285  
DOI: 10.1055/a-1331-7285

J.-J. Ji  
Z.-Q. Zhu\*  
Z.-B. Xie  
J. Tang  
E. Yuan  
Z.-G. Le\*

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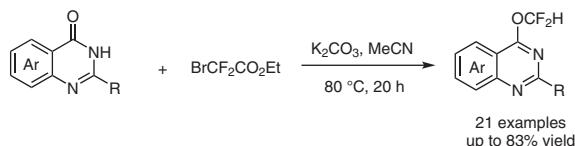


Synthesis 2021, 53, 2286–2292  
DOI: 10.1055/a-1375-3538

J. Peng  
L. Hu  
M.-W. Chen  
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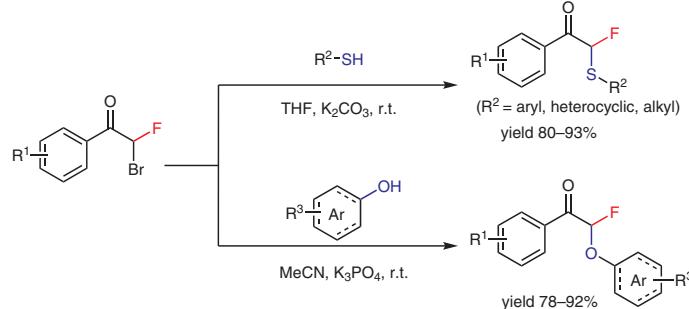
Selective difluoromethylation



Synthesis 2021, 53, 2293–2303  
DOI: 10.1055/a-1395-4788

Z. Li  
M. Fang  
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Y. Liu  
Y. Liu  
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V. Saravanan  
A. K. Mohanakrishnan\*  
University of Madras, India

Synthesis of Annulated Carbazoles via  $\text{FeCl}_3/\text{SnCl}_4$ -Mediated Domino Reaction of Vinyl Ketone Tethered Bromomethylindoles with Arenes and Heteroarenes

