Synthetic Studies toward the C1–C12 Fragment of Amphidinolide U

I. Ciss, M. Seck, B. Figadère, L. Ferrié
A Sulfoxide Reagent for Sulfinylative Cross-Coupling

F. Saito*
Ludwig Maximilian University, Germany

New Advances in Sultine Chemistry

Z. Zhu
Z. Deng
X. Ouyang
C. Shu*
Central China Normal University (CCNU), P. R. of China
HICI Digital Power Technology Co., Ltd., P. R. of China
**Synlett**

**Y.-M. Wei**
**X.-D. Ma**
**X.-F. Duan**
*Beijing Normal University, P. R. of China*

**ortho-Heterobimetallic Arylene Complex: A New Platform for Regioselective Difunctionalization**

![Diagram of ortho-Heterobimetallic Arylene Complex]

- Synergism inhibits arene formation
- Synergism inhibits M1/M2 exchange
- Regioselectivity by distinct C–M bonds
- Oxidative coupling by transition metal

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**P. Langer**
*Universität Rostock, Germany*

**Small and Smart: Adventures in Epithalohydrin Chemistry**

![Diagram of Epithalohydrin Chemistry]

**Synlett**

**C. S. Sankara**
**S. P. Gaikwad**
**I. N. Namboothiri**
*Indian Institute of Technology Bombay, India*

**Synthesis of Natural Products, Carbocycles, and Heterocycles by Haus–Kraus Annulation**

![Diagram of Haus–Kraus Annulation]

**Transition-metal-free synthesis**

- Naphthoquinones
- [4+4] Annulation followed by rearrangement
- Spira heterocycles
- Fused heterocycles
- Michael addition followed E2 elimination
- Drugs & natural products

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Crystal Engineering, Electron Conduction, Molecular Recognition and Reactivity by Chalcogen Bonds in Tetracyanoquinodimethanes Fused with [1,2,5]Chalcogenadiazoles

T. Shimajiri
H.-P. J. de Rouville
V. Heitz
T. Akutagawa
T. Fukushima
Y. Ishigaki
T. Suzuki*
Hokkaido University, Japan

Cyanation and Hydrolysis Cascade of Aryl Bromides with Cuprous Cyanide to Access Primary Amides

C. Xia*
X. Chen
J. Dai
F. Gao
N. Wang
J. Wang
X. Xiao
F. Dai
Y. Li
B. Hong*
Zhejiang University of Technology, P. R. of China
Zhejiang Meiyang International Engineering Design Co., Ltd., P. R. of China

Carbene-Catalyzed Regioselective Addition of Oxindoles to Ynals for Quick Access to Allenes

C. Sun
Y. Nong
C. Pang
S. Zhang
T. Li*
Guizhou University, P. R. of China
Ni-Catalyzed Reductive Coupling of Alkyl Carbonochloridates and Aryl Iodides

C. Liu
K. Yao *
Y. Chen *
Shanghai University, P. R. of China

Ni cat., Zn
40 °C
R = EWG, EDG
R1 = Alkyl, H
26 examples
21–78% yields

Ruthenium(II)-Catalyzed C–H Annulation of Mandelic Acids with Internal Alkynes to Construct Isocoumarins

S. M. Li *
W. H. Wang
H. J. Li
F. Du
Y. N. Cui *
S. J. Zhang
Dalian University, P. R. of China

[RuCl2(p-cymene)]2 (15 mol%)
Cu(OAc)2·H2O (1 equiv.)
DMF, 110 °C, 12 h
air


Y. Ando *
M. M. Maturi
T. Hoshino
N. Tanaka
T. Sakai
K. Ohmori
K. Suzuki *
Tokyo Institute of Technology, Japan

diastereoselective methylation
Michael–Dieckmann reaction
oxidative lactonization

Synthetic Studies toward the C1–C12 Fragment of Amphidinolide U

I. Ciss
M. Seck
B. Figadère
L. Ferrié *
Université Paris-Saclay, France

Catalyst-Free, Multicomponent Reaction of Iodonium Ylides, Nitrosoarenes, and Olefins for the Synthesis of Isoxazolidine Derivatives

Y.-R. Zhao
L. Li *
J. Xuan *
Anhui University, P. R. of China
Liaocheng University, P. R. of China

Decarboxylative Oxidation of Carboxylic Acids Using Photocatalysis and Copper Catalysis

M. K. Zaman
S. N. Khan
Y. Cai
Z. Sun *
Shanghai Jiao Tong University, P. R. of China
Semi-Synthesis of (+)-Digitoxigenin from Androstenedione

L. Wei
K. Qiao
L. Shi*
Dalian University of Technology, P. R. of China

9 linear steps, 20.4% overall yield

Visible-Light-Induced C-3 Difluoroalkylation of Quinoxalin-2(1H)-ones with Difluoriodane(III) Reagents under Catalyst-Free Conditions

H. Qin
N. Zhou
K. Wang
Y. Zhang
X. Zhao
K. Lu*
Tianjin University of Science and Technology, P. R. of China

24 W Blue LED

Visible-Light-Driven Selenyl-Radical-Mediated Cascade Spirocyclization of 3-(2-Isocyanobenzyl)indoles with Diselenides

T.-Y. Cao
L. Qi*
J.-H. Cao
L.-J. Wang*
Hebei University, P. R. of China

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Mechanosynthesis of Fullerotetrahydroquinolines by Copper-Mediated $sp^3$ C–H Functionalization of $N,N$-Dimethylanilines with [60]Fullerene

H. Yang
S.-Q. Ye
G. Shao
J.-S. Chen
G.-W. Wang*
University of Science and Technology of China, P. R. of China

DMAP-Catalyzed Domino Reactions of $\alpha$-Chloroaldoxime $O$-Methanesulfonates and 2-Aminobenzoic Acids for the Synthesis of Quinazolinediones

W. Kaewman
J. Kaeobamrung*
Prince of Songkla University, Thailand

Quinazolinediones were achieved in one-pot fashion under mild reaction conditions from $\alpha$-chloroaldoxime $O$-methanesulfonates and 2-aminobenzoic acids