Recent Advances Towards Syntheses of Diterpenoid Alkaloids

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Cyclopropanation Reactions of Semi-stabilized and Non-stabilized Diazo Compounds

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A One-Pot Intramolecular Tandem Michael–Aldol Annulation Reaction for the Synthesis of Chiral Pentacyclic Terpenes

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One-Step Synthesis of 1H-Imidazo[1,5-α]imidazole Scaffolds and Access to their Polyheterocycles

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**Synthesis of Aza-polyquinanes via Fischer Indolization and Ring-Rearrangement Metathesis as Key Steps**

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**[3+2]-Cycloaddition of α-Diazocarbonyl Compounds with Arenediazonium Salts Catalyzed by Silver Nitrate Delivers 2,5-Disubstituted Tetrazoles**

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**Direct Access to Highly Functionalised Benzimidazoles and Benzoxazoles from a Common Precursor**

A. Garrido  
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F. Quintin  
M. Abarbri  
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A. Gueiffier  
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Cobalt Used as a Novel and Reusable Catalyst: A New and One-Pot Synthesis of Isatin-Derived N,S-Acetals Using Substituted Isatins and Thiols

**Paper**

R\(^1\) = H, Pr, i-Pr, Me, 4-BrC\(_6\)H\(_4\)CH\(_2\), Ph
R\(^2\) = H, Br, Cl
R = H, Me, OMe, F, Cl, NH\(_2\)

Heterogeneous catalyst
Recyclability
Novel catalyst
Low catalyst loading
Gram-scale synthesis
Yellow chemical approach
Yields: 18–99%
21 examples

An Expedient, Direct, Three-Component Approach for the Synthesis of 4-Thioarylpyrroles

**Paper**

One-pot thiol-Michael and Paal–Knorr reaction
Formation of one C–S and two C–N bonds
Gram-scale synthesis
29 Examples, up to 97% yield

Combining Amines and 3-(2-Pyridyl)-[1,2,3]Triazolo[1,5-a]pyridine: An Easy Access to New Functional Polynitrogenated Ligands

**Paper**

9 examples up to 96% yield

6 new multidentate compounds
**Synthesis**

Direct Synthesis of Nitrones via Transition-Metal-Free Ring-Opening of \( \text{N-Tosylaziridines with the Nitrogen Atom of Various (E)-Aldoximes and (E)-Ketoximes} \)

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W. Yan
R. Zhang
H. Chang
W. Gao
X. Tian*
W. Wei
Taiyuan University of Technology, P. R. of China

![Chemical structure and reaction equation]

- 59 examples
- up to 99% yields
- up to 100% regioselectivity

**Synthesis**

Copper-Catalyzed 6-endo-dig O-Cyclization of 2-(But-3-en-1-yn-1-yl)benzamide

R.-X. Wang*
Z. Fang
G. Qiu*
J.-B. Liu*
Jiangxi University of Science and Technology, P. R. of China
Jiaxing University, P. R. of China

![Chemical structure and reaction equation]

Selected examples:

- 90%
- 74%
- 81%

**Synthesis**

Bicyclic 1-Azafagomine Derivatives: Synthesis and Glycosidase Inhibitory Testing

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O. López*
M. O. Sydnes
J. G. Fernández-Bolaños
S. B. Ferreira
E. Lindbäck*
University of Stavanger, Norway
Universidad de Sevilla, Spain

![Chemical structure and reaction equation]

- Potent \( \beta \)-glucosidase inhibitor?
- Poor \( \beta \)-glucosidase inhibitor?
**A Straightforward Conversion of Activated Amides and Haloalkanes into Esters under Transition-Metal-Free Cs₂CO₃/DMAP Conditions**

South China Normal University, P. R. of China

**Synthesis**
2019, 51, 4078–4084
DOI: 10.1055/s-0039-1690178

**N-Alkynyl Pyrrole Based Total Synthesis of Shensongine A**

B. J. Reinus, S. M. Kerwin*
Texas State University, USA

**Synthesis**
2019, 51, 4085–4105
DOI: 10.1055/s-0037-1611904

**Evaluation of Amino Nitriles and an Amino Imidate as Organocatalysts in Aldol Reactions**

N. Vagkidis, A. J. Brown, P. A. Clarke*
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**Synthesis**
2019, 51, 4106–4112
DOI: 10.1055/s-0039-1690150

**Paper**

4078

4085

4106