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

1. Fischer indolization
2. N-Alkylation sequence
3. RRM

Five examples up to 91% yield
Two examples
Four contiguous stereocenters
Aza-polyquinane bearing an indole motif
Aza-polyquinane contain fused medium rings
Characterized by X-ray analysis

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

R = H, EWG or EDG, R' = alkyl, (hetero)aryl or 2° amino

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

X = NH, O
R¹, R² = H, OMe, Me, CN, Cl, Br, F

11 examples up to 86% yield
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

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R¹ = H, Pr, i-Pr, Me, 4-BrC₆H₄CH₂, Ph
R² = H, Br, Cl
R = H, Me, OMe, F, Cl, NH₂

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

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

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AcOH, 120 °C
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-α]pyridine: An Easy Access to New Functional Polynitrogenated Ligands

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Thermal conditions
excess amine
Cu Cat. conditions
4 equiv amine

X = NH₂, OH, NHR, etc.
9 examples up to 96% yield
6 new multidentate compounds
Direct Synthesis of Nitrones via Transition-Metal-Free Ring-Opening of N-Tosylaziridines with the Nitrogen Atom of Various (E)-Aldoximes and (E)-Ketoximes

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

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Bicyclic 1-Azafagomine Derivatives: Synthesis and Glycosidase Inhibitory Testing

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A Straightforward Conversion of Activated Amides and Haloalkanes into Esters under Transition-Metal-Free Cs₂CO₃/DMAP Conditions

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A Straightforward Conversion of Activated Amides and Haloalkanes into Esters under Transition-Metal-Free Cs₂CO₃/DMAP Conditions

N-Alkynyl Pyrrole Based Total Synthesis of Shensongine A

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

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