Recent Advances in Photocatalytic Decarboxylative Coupling Reactions in Medicinal Chemistry

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Catalytic Asymmetric Transformations of Racemic Aziridines

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Automated Electrochemical Selenenyations

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Functionalization of Alkenyl C–H Bonds with D2O via Pd(0)/Carboxylic Acid Catalysis

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A Convenient Synthesis of Amidines via Cycloaddition–Decarboxylation of Isocyanates and Nitrones

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Environmentally Friendly Nafion-Mediated Friedländer Quinoline Synthesis under Microwave Irradiation: Application to One-Pot Synthesis of Substituted Quinolinyl Chalcones

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- 56 examples  
- good FG tolerance  
- high yields  
- atom-economic  
- environmentally friendly

Total Synthesis of Asparenydiol by Two Sonogashira Cross-Coupling Reactions Promoted by Supported Pd and Cu Catalysts

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- 7 examples up to 88% yield
- 10 examples up to 81% yield
- 42 examples up to 91% yield

Straightforward Synthesis of Novel 4-Styrylquinolines/4-Styrylquinolin-2-ones and 9-Styryldihydroacridin-1(2H)-ones from Substituted 2′-Aminochalcones

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- 10 examples up to 91% yield
- 42 examples up to 91% yield
- 7 examples up to 88% yield

X = Y = Me; X–Y = CH₂CH₂CH₂; X = OEt, Y = Me; X = Ph, Y = Me; X = NH₂, Y = Me
One-Pot Synthesis of α-Halo β-Amino Acid Derivatives via the Difunctional Coupling of Ethyl α-Diazoacetate with Silyl Halides and N,O-Acetals or Aromatic Tertiary Amines

Synthesis of 2,4-Diarylquinoline Derivatives via Chloranil-Promoted Oxidative Annulation and One-Pot Reaction

Unexpected Iodine-Promoted Aerobic Oxidation of α-Cyano-δ-keto Esters: A Facile Synthesis of α,δ-Dicarbonyl Esters
Facile Construction of Troponoid Derivatives Incorporating Imidazolin-2-one Moieties

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14 examples
30–87% yield

• no catalyst
• simple thermal conditions
• cascade reaction