Visible-Light-Driven Organic Photochemical Reactions in the Absence of External Photocatalysts

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A Practical, Large-Scale Synthesis of $p$-(Difluoriodo)toluene ($p$-TolIF$_2$)

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Synthesis 2019, 51, 3021–3054  
DOI: 10.1055/s-0037-1611812

Synthesis 2019, 51, 3055–3059  
DOI: 10.1055/s-0037-1611526

Visible Light Photoexcitation of a Single Substrate
Visible Light Photoexcitation of Reaction Intermediates
Visible Light Photoexcitation of EDA Complexes between Substrate and Reaction Intermediates
Visible Light Photoexcitation of Products

Synthesis

Synthesis

Reviews and Full Papers in Chemical Synthesis 2019  
Vol. 51, No. 16  
August II
Access to Biphenyls by Palladium-Catalyzed Oxidative Coupling of Phenyl Carbamates and Phenols

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Palladium-Catalyzed C(sp²)–H Olefination/Annulation Cascades of Aryl Carboxamides Assisted by N,S-Bidentate Auxiliary

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Iron-Promoted Construction of Indoles via Intramolecular Oxidative C–N Coupling of 2-Alkenylanilines Using Persulfate

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A Highly Efficient Heterogeneous Copper-Catalyzed Oxidative Cyclization of Benzylamines and 1,3-Dicarbonyl Compounds To Give Trisubstituted Oxazoles

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Synthesis of Diarylacetylenes Bearing Electron-Withdrawing Groups via the Smiles Rearrangement

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Nickel-Catalyzed Homocoupling of (Z)-β-Iodoenol Esters: Stereoselective Access to (Z,Z)-Buta-1,3-diene-1,4-diyl Diesters

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Stereoselective homocoupling of (Z)-β-iodoenol esters

\[ \text{[NiCl}_2\text{(PPh}_3\text{)_2]} (10 \text{ mol\%}), \text{NaI} (10 \text{ mol\%}), \text{Zn} (1.6 \text{ equiv}) \]

\[ \text{THF, r.t., 16 h} \]

33 examples  
40–89% yield

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Synthesis of Bisflavanol-Type Natural Products and Their Analogues via Self-Coupling of C8-Methylol Catechin Derivatives

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**H.-J. Li**  
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20 examples (90–98% yields)  
regiospecific and ultrafast

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Lithium Chloride Catalyzed Aza-Michael Addition of Pyrazoles to α,β-Unsaturated Imides

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**B. Ma**  
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\[ \text{R} = \text{aryl, alkyl} \]

\[ \text{LiCl} (10 \text{ mol\%}), \text{MeCN, reflux} \]

up to 93% yield  
• cheap catalyst  
• broad substrate scope  
• high yields  
• easy to scale up
Organocatalytic Gram-Scale Synthesis and Alkylation of Heteroaryl and Electron-Rich Aryl α-Substituted γ-Lactones

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Copper-Catalyzed Intramolecular α-C–H Amination via Ring-Opening Cyclization Strategy to Quinazolin-4-ones: Development and Application in Rutaecarpine Synthesis

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