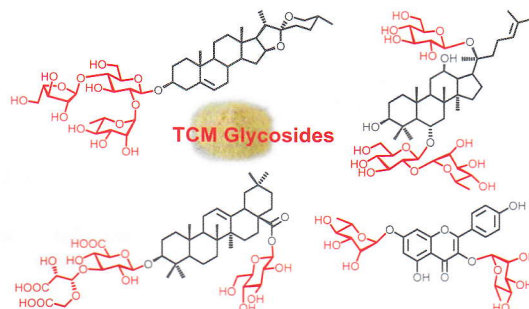


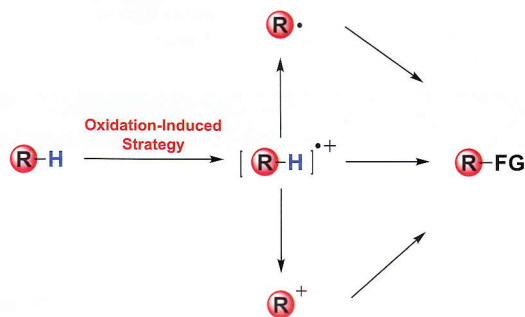
## Chemistry Authors Up Close

681  
Synthesis of the Diverse Glycosides in Traditional Chinese Medicine



Dapeng Zhu, Biao Yu\*

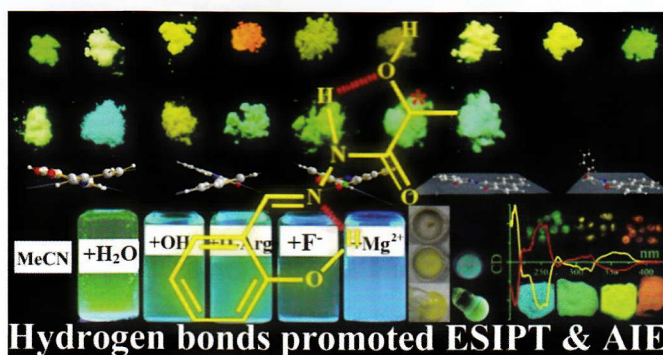
692  
Oxidation-Induced C—H Functionalization: A Formal Way for C—H Activation



Yichang Liu, Hong Yi, Aiwen Lei\*

## Comprehensive Reports

698  
Multiple Hydrogen Bonds Promoted ESIPT and AIE-active Chiral Salicylaldehyde Hydrazide

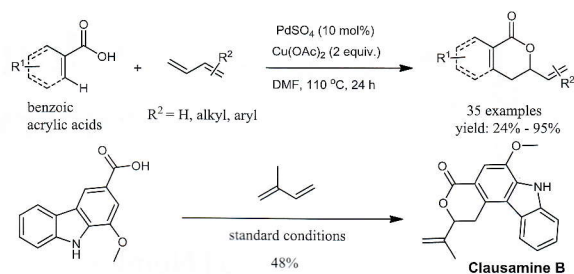


Man Wang, Caiqi Cheng, Jintong Song, Jun Wang, Xiangge Zhou, Haifeng Xiang,\* Jin Liu\*

The simpler, the better! In the present work, we firstly reported a series of simple and soft salicylaldehyde hydrazide materials (41 samples) that exhibit multiple intramolecular and intermolecular hydrogen bonds promoted ESIPT and AIE properties with large Stokes shifts and can be used as multiple-stimuli-responsive smart materials for many applications in mechanochromism, universal probes, chiral recognition, and living cell imaging.

708

**Palladium-Catalyzed Formal [4+2] Cycloaddition of Benzoic and Acrylic Acids with 1,3-Dienes by C—H Bond Activation: Efficient Access to 3,4-Dihydroisocoumarin and 5,6-Dihydrocoumalins**

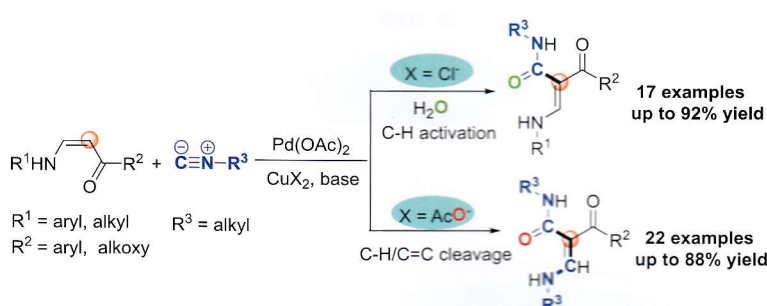


We report a palladium-catalyzed formal intermolecular [4+2] cycloaddition of benzoic and acrylic acids with 1,3-dienes including the stock chemicals 1,3-butadiene and isoprene leading to synthetically useful 3,4-dihydroisocoumarin and 5,6-dihydrocoumalins. Stepwise C—H bond cleavage and annulation are likely involved in the reaction pathway. The synthetic potential of the methodology was demonstrated by two short derivatizations and total synthesis of natural product Clausamine B.

Youwen Sun, Guozhu Zhang\*

712

**Palladium-Catalyzed Intermolecular Oxidative Coupling Reactions of (Z)-Enamines with Isocyanides through Selective  $\beta\text{-C}(\text{sp}^3)\text{-H}$  and/or C=C Bond Cleavage**



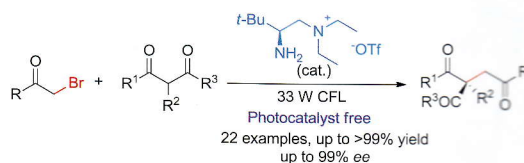
Herein, two efficient palladium-catalyzed intermolecular oxidative coupling reactions of (Z)-enamines with isocyanides via selective  $\beta\text{-C}(\text{sp}^3)\text{-H}$  and/or C=C bond cleavage have been developed. A wide range of (E)- $\beta$ -carbamoylenamine derivatives containing strong intramolecular hydrogen bonds were constructed in a chemodivergent manner.

Weigao Hu, Jia Zheng, Meng Li, Wanqing Wu, Haiyang Liu, Huanfeng Jiang\*

## Concise Reports

716

**Asymmetric  $\alpha$ -Alkylation of  $\beta$ -Ketocarboxyls via Direct Phenacyl Bromide Photolysis by Chiral Primary Amine**

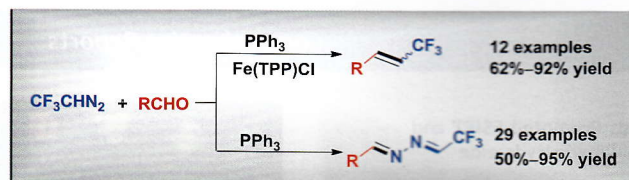


Enantioselective  $\alpha$ -photoalkylation of  $\beta$ -ketocarboxyls without any external photosensitizer was described, which provided convenient constructions of all-carbon quaternary stereocenters by a chiral primary amine catalyst.

Wenzhao Zhang, Yunbo Zhu, Long Zhang, Sanzhong Luo\*

723

**Phosphine-Relayed Aldehyde-Olefination and Aza-Wittig Reaction with 2,2,2-Trifluoroethane**

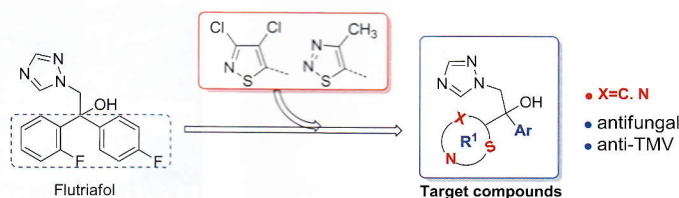


Facile transformations of aldehydes with  $\text{CF}_3\text{CHN}_2$  to  $\text{CF}_3$ -alkenes and  $\text{CF}_3$ -hydrazones have been achieved via phosphine-relay strategy.

Fa-Guang Zhang,\* Ning Lv, Yan Zheng, Jun-An Ma\*

731

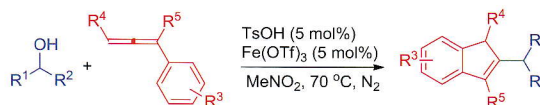
**Design, Synthesis and Biological Evaluation of Isothiazole Based 1,2,4-Triazole Derivatives**



The novel 3,4-dichloroisothiazole based 1,2,4-triazole derivatives were designed, synthesized and their *in vitro* antifungal activities and *in vivo* anti-TMV activity were evaluated. The bioassay results indicated that compound **6b**, namely 1-(3,4-dichloroisothiazol-5-yl)-1-(4-fluorophenyl)-2-(1H-1,2,4-triazol-1-yl)ethanol exhibited both excellent fungicidal activity against *B. cinerea*, *C. arachidicola* and *P. piricola* with  $\text{EC}_{50}$  values of 6.98, 2.73 and 3.07  $\mu\text{g}/\text{mL}$ , respectively, and more than 60% inactivation and induction anti-TMV activity at 100  $\mu\text{g}/\text{mL}$ . Therefore, compound **6b** could be a promising fungicidal and anti-TMV candidate worthy of further studies.

Lai Chen, Qifan Wu, Zhijin Fan,\* Hongpeng Li, Jiwei Li, Wenhao Hu, Xiumei Liu, Nataliya P Belskaya, Tatiana Glukhareva, Bin Zhao\*

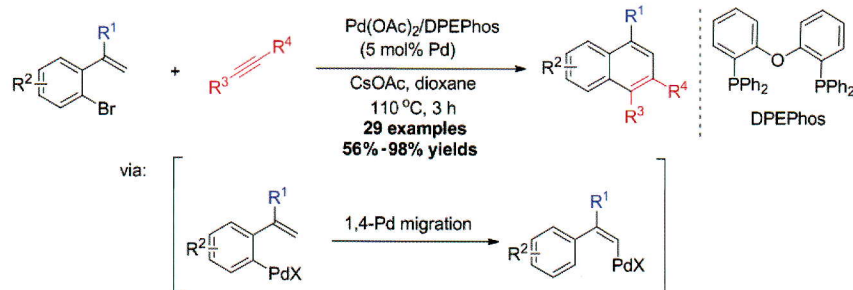
737  
TfOH/Fe(OTf)<sub>3</sub> Cocatalyzed Reaction of Aryllal-  
lenes with Alcohols for Structurally Diverse  
Indene Derivatives



Congrong Liu,\* Haiyun Zhang, Lianghui Ding,  
Juan Liu

In the presence of 5 mol% TfOH and 5 mol% Fe(OTf)<sub>3</sub>, a range of aryllalenes undergo carbocation initiated cyclization reaction with alcohols to give structurally diverse polysubstituted indenenes in good to excellent yields with extremely high regioselectivity.

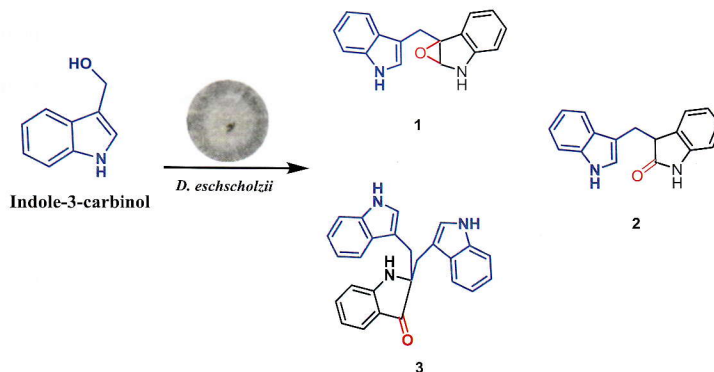
743  
Synthesis of Substituted Naphthalenes by  
1,4-Palladium Migration Involved Annulation  
with Internal Alkynes



Dong Wei, Tian-Jiao Hu, Chen-Guo Feng,\*  
Guo-Qiang Lin\*

The palladium catalyzed annulation of 1-bromo-2-vinylbenzene derivatives with internal alkynes was realized for the efficient synthesis of substituted naphthalenes. A controllable aryl to vinylic 1,4-palladium migration process is the key for success.

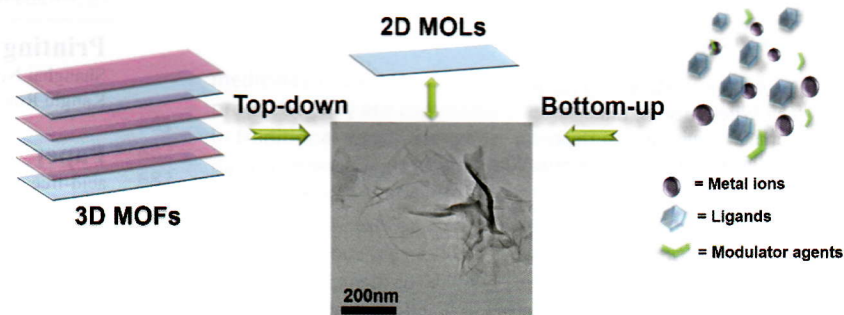
749  
Bioactive Alkaloids from Indole-3-carbinol Ex-  
posed Culture of *Daldinia eschscholzii*



Li Ping Lin, Ren Xiang Tan\*

### Recent Advances

754  
Synthetic Strategies for Constructing Two-  
Dimensional Metal-Organic Layers (MOLs): A  
Tutorial Review



Lingyun Cao, Tingting Wang, Cheng Wang\*

This tutorial level review focuses on summarizing synthetic strategies for constructing two-dimensional metal-organic layers.

Meeting Our New Members of Editorial Board of Rising Stars (pages 765–774)