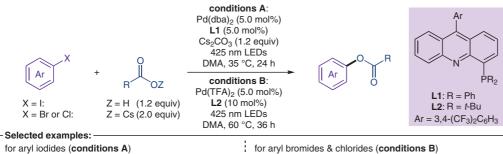
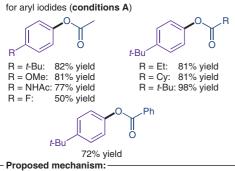
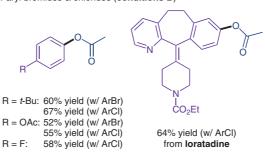
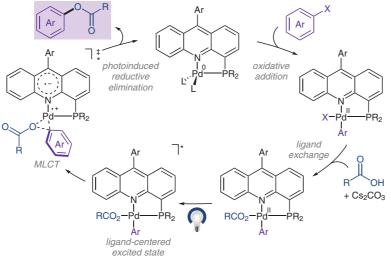
N. TORIUMI, T. INOUE, N. IWASAWA* (TOKYO INSTITUTE OF TECHNOLOGY, JAPAN) Shining Visible Light on Reductive Elimination: Acridine–Pd-Catalyzed Cross-Coupling of Aryl Halides with Carboxylic Acids *J. Am. Chem. Soc.* **2022**, *144*, 19592–19602, DOI: 10.1021/jacs.2c09318.

Palladium-Catalyzed Cross-Coupling of Aryl Halides with Carboxylic Acids by Photoinduced Reductive Elimination









Significance: A palladium-catalyzed cross-coupling of aryl halides with carboxylic acids under visible-light irradiation is disclosed. The reaction affords aryl esters in moderate to good yields. Key to success is the design and use of a non-innocent phosphinoacridine ligand.

Comment: Experimental mechanistic studies revealed that the palladium(II) species undergoes a photoinduced reductive elimination, which is promoted by a metal-to-ligand charge transfer (MLCT) in the excited state.

SYNFACTS Contributors: Martin Oestreich, Hendrik F. T. Klare, Nektarios Kranidiotis-Hisatomi Synfacts 2023, 19(01), 0037 Published online: 16.12.2022

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Key words

acridines
aryl halides
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