

# Atom-Economic Palladium Carbon Catalysed de novo Synthesis of Trisubstituted Nicotinonitriles

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## Abstract:

A *de novo* Palladium carbon catalyzed synthesis of tri-substituted nicotinonitriles from easily synthesized homopropargylic or homoallylic aromatic alcohols in presence of nitriles has been explored. The mechanism proceeds with an interesting generation of Pd(II) -C palladacycle followed by an oxidative aromatization to generate the pyridine core. The pyridine core is generated with a noteworthy C-C bond cleavage incase with the substituted nitriles. The moderate yields and easy separation of the products delivers a unique importance to this one pot methodology. **More in** *J. Org. Chem* **2017**, *82*, 9012. DOI: 10.1021/acs.joc.7b01332

