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Organo-phosphorus compounds S 0080

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Copper-Mediated Synthesis of Aryldifluoromethylphosphonates: A Sandmeyer Approach. — The CuCF₂-PO(O-Et)₂ species, generated in situ under optimized mild conditions, reacts with various aryl diazonium salts to produce the synthetically and pharmaceutically important target compounds bearing various functionalities at the phenyl moiety. No results are observed if heterocyclic substrates are used. — (BAYLE, A.; COCAUD, C.; NICOLAS, C.; MARTIN, O. R.; POISSON*, T.; PANNECOUCKE, X.; Eur. J. Org. Chem. 2015, 17, 3787-3792, http://dx.doi.org/10.1002/ejoc.201500373; COBRA, CNRS, Univ. Rouen, F-76821 Mont-Saint-Aignan, Fr.; Eng.) — Lehmann

F F O-Et
$$Ar^1-N_2^+$$
 BF_4^- (II), 3 equiv. CsF Ar^1 P O-Et Ar^1 : —Tol 65% Ar^1 : — R^1 R^2 R^2 R^3 R^4 (II), 3 equiv. CsF R^4 R