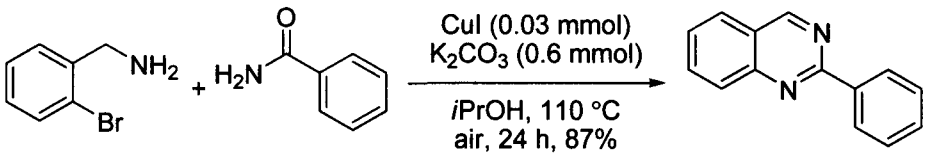
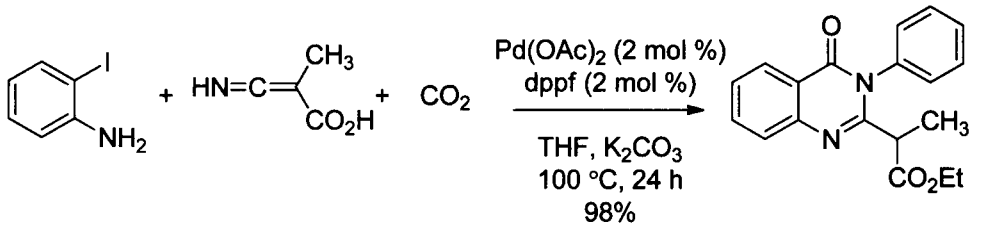
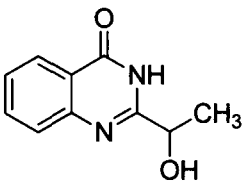



Larksarp and Alper used a palladium(II) catalyzed cyclocarbonylation reaction to generate a series of more complex and biologically relevant 4(3*H*)-quinazolinone derivatives.[40] Compounds of this class, such as the mold metabolite crysogine (*Penicillium chrysogenum*), have been shown to exhibit PTK inhibition and cholecystokinin inhibition as well as antimicrobial, anti-convulsant, anti-depressant and anti-inflammatory properties. Reaction of *o*-iodoaniline, a substituted ketenimine, and carbon monoxide with palladium(II) acetate and 1,1'-bis-diphenylphosphino-ferrocene (dppf) under thermal conditions gave the desired quinazolinone in near quantitative yield. In the same report, the authors showed that similar reactions could also be conducted with isocyanates and carbodiimides (not shown).




crysogine

Abdel-Jalil and co-workers used a novel copper(II)-catalyzed condensation reaction between anthranilamides and aryl, alkyl, and heteroalkyl aldehydes to generate the corresponding 4(3*H*)-quinazolinones in excellent yields.[41] In one example, treatment of anthranilamide with 2-furaldehyde gave the corresponding 2-substituted quinazolinone in 85% yield. The resulting compound could be used to readily access the antibiotic nitrofurquinazol in just a few short steps.