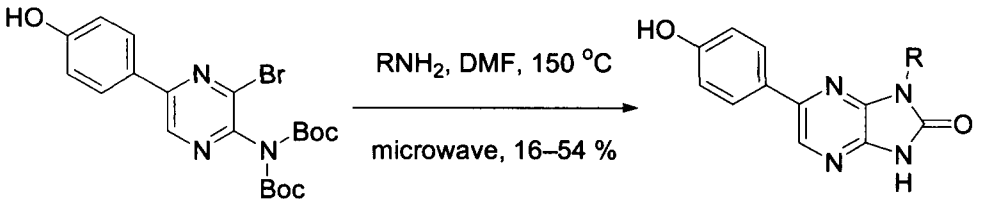
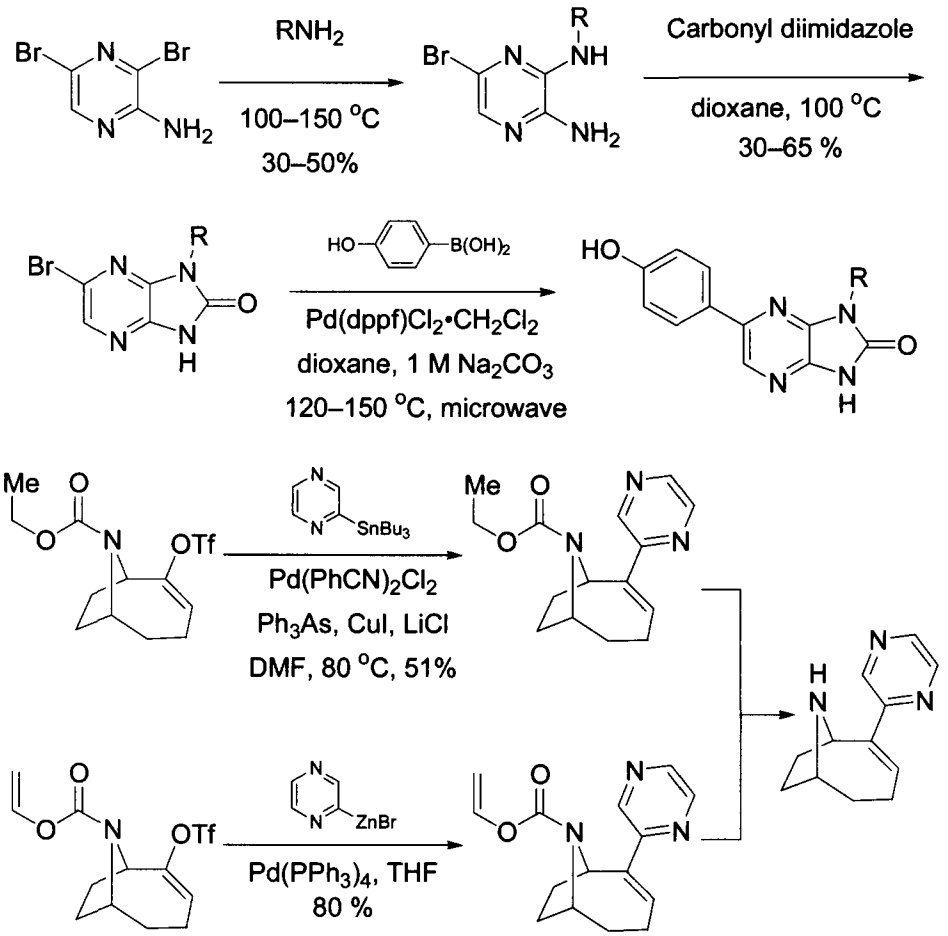


The second pathway began with 3,5-dibromopyrazin-2-amine. Substituting the bromide *ortho-* to the amine was accomplished in low yields using a variety of primary amines at elevated temperatures to provide a variety of aromatic amines. Cyclization to form the urea was accomplished using carbonyl diimidazole or urea at high temperatures. The target for study was completed with a Suzuki coupling with the boronic acid under microwave irradiation in 20–60% yields.



To further illustrate the broad biological activity that pyrazines can display, Sharples[59] and Seitz[60] synthesized the similar intermediates toward