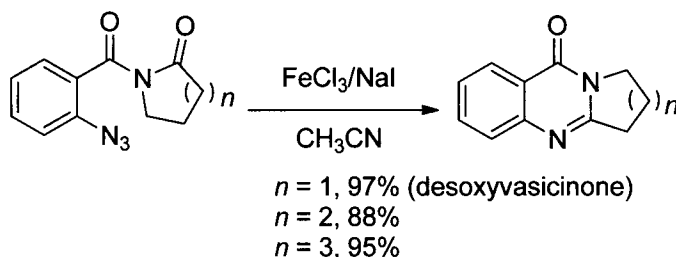


Kamal and co-workers used a transition metal-catalyzed approach in their synthesis of desoxyvasicinone.⁴² Treatment of an aromatic azide with iron(III) chloride in the presence of sodium iodide and acetonitrile gave the desired product in high yield. Derivatives containing 6,6,6- ($n = 2$) and 6,6,7-fused ($n = 3$) systems were also reported in high yield.



14.4 Synthesis of Quinazoline- and Quinazolinone-Containing Drugs

The synthesis of several commercially available and biologically significant quinazolines and quinazolinones are illustrated below. In most cases, the quinazoline or quinazolinone ring system is constructed from acyclic precursors and then functionalized accordingly.

14.4.1 Quinazoline-containing Drugs

Protein tyrosine kinases (PTKs) are vital components of many signal transduction pathways that regulate various cell functions such as cell division, motility, and apoptosis. As such, PTKs are common targets for cancer therapies. Quinazoline-based compounds such as erlotinib have been