A New Twist on Sydnones

Significance: While helicenes have held the attention of chemists for years, expedient, selective syntheses to access such architectures are few and far between. In this report, Audisio and co-workers disclose a two-step method to a variety of pyrazole-containing heterohelicenes through cycloadditions of arynes and sydnones.

Comment: To form the helical product selectively, it was found that the phenanthryne cycloaddition partner was key. The use of naphthyne and benzene cycloaddition partners resulted in eroded selectivity. Computational studies revealed that a C–H···π interaction stabilized the transition state for the helicene.