Expanded \([n]\)Radialenes: Unusual Carbon-Rich Molecules

**Synthesis of extended \([4]\)radialenes:**

1. TBAF, THF
2. Pd(PPh\(_3\))\(_4\), CuI, i-Pr\(_2\)NH, THF, \(\Delta\)

**Synthesis of extended \([3]\)radialenes:**

1. TBAF, THF
2. Pd(PPh\(_3\))\(_4\), CuI, i-Pr\(_2\)NH, THF, \(\Delta\)

**Significance:** Conjugated macrocycles belong to a class of carbon-rich molecules that exhibit unusual structures and fascinating electronic and optical properties. Here, Tykwinski and co-workers report synthetic approaches to extended \([4]\)radialenes \(1\) and \([3]\)radialenes \(2\).

**Comment:** Synthesis of the extended radialenes \(1\) and \(2\) is accomplished by a one-pot deprotection and palladium-catalyzed cross-coupling reaction of common intermediates \(3\) and \(4\), respectively. Increased bond-angle strain appears to reduce yields in the synthesis of \(2\) compared to \(1\). A modified synthesis that leads to \(C_2\)-symmetric expanded \([4]\)radialenes is also presented in this work.