OXOLANES ARE UBQUITOUS IN NATURAL PRODUCTS AND HAVE LONG BEEN AN IMPORTANT CLASS OF BIOACTIVE HETEROCYCLES. [1] THESE OXACYCLES ARE READILY ACCESSIBLE VIA RADICAL CYCLIZATION REACTIONS. DESPITE THEIR IMPORTANCE, ONLY A FEW PAPERS HAVE REPORTED THE CYCLIZATION OF OXY CARBON CENTERED RADICALS, WITH A MAJORITY INVOLVING TIN REAGENTS. [2,3] HEREIN, WE REPORT A TIN-FREE PROCEDURE TO GENERATE THESE RADICALS THAT USES AIR-STABLE ORGANOBORANES AS PRECURSORS FOR THE RAPID CONSTRUCTION OF DECORATED OXOLANE DERIVATIVES.

This strategy involves the in-situ formation of oxy catecholboronic ester intermediates to side-step tricky isolations.[4,5] Full details of the method will be disclosed, such as the application to the synthesis of di-, tri- and tetrasubstituted oxolane derivatives, in good to high yields and diastereoselectivities.