Multicomponent radical reactions continue to attract considerable attention in organic synthesis driven by a desire to generate structural diversity from simple small molecules. For decades, tin reagents have been used as most popular mediators of radical reactions. Recent research has focused on seeking greener reagents as an alternative to tin and this led us to reconsider the potential of traditional radical chemistry for multicomponent reactions. Indeed we have been able to exploit the well known behavior of bromine radicals to add to unsaturated C-C bonds to develop novel three- and four-component radical reactions.