



it is to be expected that the radical displacement of equation (2) would be followed by the further reaction of the displaced paramagnetic iron complex with the radical precursor ( $R'X = Br_3CBr, ArSO_2I, etc.$ ) to generate the attacking radical of equation (2) as shown in equation (3). The combination of equations (2) and (3) thus provides the propagation steps of a chain reaction.

Electrophilic attack on the  $\delta$ -carbon of a but-3-enyl ligand of a metal complex with formation of a cyclopropane

derivative has been observed previously with some but-3-enyltin(IV) complexes<sup>8</sup> and with but-3-enylcobalt(III) complexes,<sup>9</sup> though not with  $CF_3CO_2H$  as reagent. The homolytic displacement is a novel process, of potential importance in organic synthesis, which we have also detected with a number of but-3-enylcobalt(III) complexes.<sup>10</sup>

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