Significance: Lignin natural products offer a multitude of structural variety. Despite their diverse complexity, the biosynthesis is proposed to feature a common oxidative coupling of two propenyl phenols, resulting in a bis-para-quinone methide, such as  \( \text{D} \) or \( \text{G} \). In this communication, Albertson and Lumb elegantly accessed such an intermediate through the opening of a cyclobutane. Indeed, bis-para-quinone methides \( \text{D} \) and \( \text{G} \) underwent 5-exo-trig cyclizations to result in the lignin natural products tanegool and pinoresinol.

Comment: Ferulic acid \( \text{A} \) was first converted into cyclobutane \( \text{C} \). For the synthesis of tanegool, reduction led to key intermediate \( \text{D} \). Then, radical-induced cyclobutane opening with iron trichloride gave the natural product in 59% yield together with 15% of its C7′ epimer. The same strategy was used to synthesize pinoresinol by first epimerizing the α-position of diester \( \text{B} \). After reduction and deprotection of \( \text{E} \), radical ring opening resulted in intermediate \( \text{G} \), which cyclized to pinoresinol as a single diastereomer in 48% yield.