

Synthesis of Some C-4 Hydroxybenzo[*c*]pyrans: A New Approach

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Abstract: A new synthetic approach to the synthesis of some epimeric C-4-hydroxybenzo[*c*]pyrans is described. A key step in their formation is stereoisomerisation of a nonconjugated *ortho* alkenylphenylketone and -ester using palladium bisacetonitrile [bisacetonitriledichloropalladium(II)] to give the corresponding conjugated *E* stereoisomers which cyclize on treatment with *meta*-chloroperbenzoic acid (m-CPBA) to afford the target compounds.

Keywords: C-4 hydroxybenzo[*c*]pyrans, hydroxy[*c*]pyrans, *meta*-chloroperbenzoic acid, palladium bisacetonitrile

Some naturally occurring compounds contain a C-4 hydroxypyran ring (in which the hydroxyl may occupy a *pseudo*-axial or *pseudo*-equatorial position) as part of their structures. Two examples are the extended quinones, protoaphins-fb and-sl.^[1] We have previously developed novel syntheses that afford such C-4 hydroxypyranquinones.^[2–4] More recently, an oxidative mercury-mediated ring closure of 2-(prop-1'-enyl)phenylmethanol derivatives was reported, which afforded diastereomeric isochroman-4-ols.^[5]