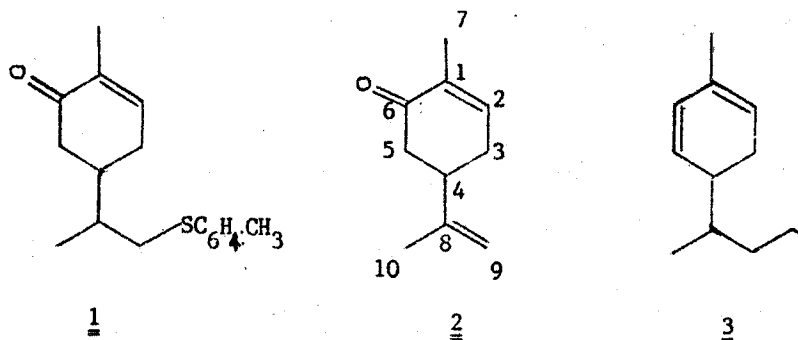


SECTION 2
**SYNTHETIC ROUTE TO ZINGIBERENE THROUGH
 ORGANOSULPHUR DERIVATIVES OF CARVONE**

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An efficient preparation of 8,9-dihydro-9-(toluene-p-thio) carvone **1** has been described and this synthon perceived to be a key intermediate in the use of carvone **2** for the synthesis of zingiberene **3**.¹



Introduction of the Δ^5 -double bond was first attempted using elimination reactions. The mesylate of the alcohol obtained by reduction of **1** was resistant to elimination. Hence the synthon **1** was first converted into the sulphone 8,9-dihydro-9-(toluene-p-sulphonyl) carvone **4**. Elimination was attempted, under various basic conditions, on the mesylate of the alcohol obtained by reduction of **4**. In all cases, the diene obtained had the new double bond in the Δ^3 -position and not in the desired Δ^5 -position.

In order to assure introduction of the Δ^5 -double bond, the tosylhydrazone of the sulphone **4** was prepared and treated with methyllithium.² The diene indeed had the new double bond in the desired position, but the yield was low and the product unstable, precluding its use for further reactions.

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