

Dibenzo-Bicyclic Carbamates as Potential Pesticides

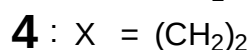
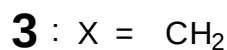
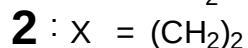
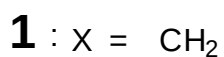
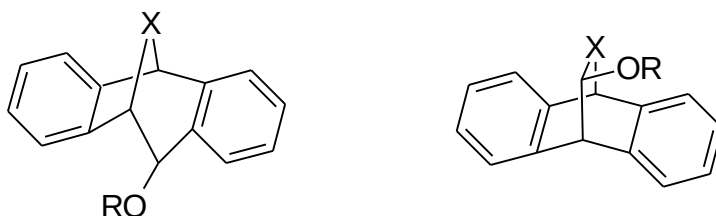
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The synthesis of new pesticides having enhanced biological activity and lower environmental effects is of great interest. Accordingly, a number of new carbamates with potential insecticide-activity have been prepared starting from the corresponding alcohols and phenyl isocyanate.



The precursor-alcohols have been prepared by solvolytic reactions. The alcohols having $X = \text{CH}_2$ are obtained in buffered solvolysis as kinetically controlled products, while the alcohols with $X = (\text{CH}_2)_2$ in unbuffered conditions being the thermodynamically controlled products.

For the benzylic carbamates **1** and **2** only the *endo* isomer has been obtained.

The structures of the carbamates **1-4** and their corresponding alcohols have been established in agreement with the IR and NMR spectral data. A geometry of the carbamates is proposed based on molecular calculations.