SYNTHESIS OF HETEROCYCLIC NATURAL PRODUCTS THROUGH ORGANOSELENIUM INTERMEDIATES

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β-Hydroxy phenylselenide (1) was subjected to the cyclisation reaction in acidic media to give (2) which was further converted into safranal (3). From the same type of reaction of (4), p-menthans (5) and (6) were also obtained. This new cyclisation reaction was applied to the synthesis of davanone and caparrapi oxide derivatives. Thus β-hydroxy phenylselenide (7) prepared starting from nerolidol was subjected to the cyclisation reaction to afford (8) and (9). Oxidative elimination of phenylselenyl group of (8) gave (10) and (11). On the other hand, reductive elimination of phenylselenyl group of (9) afforded caparrapi oxide (12) and its C_8-epimer (13).