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### CYCLOADDITIONS OF THIOKETENES WITH CN DOUBLE BOND SYSTEMS

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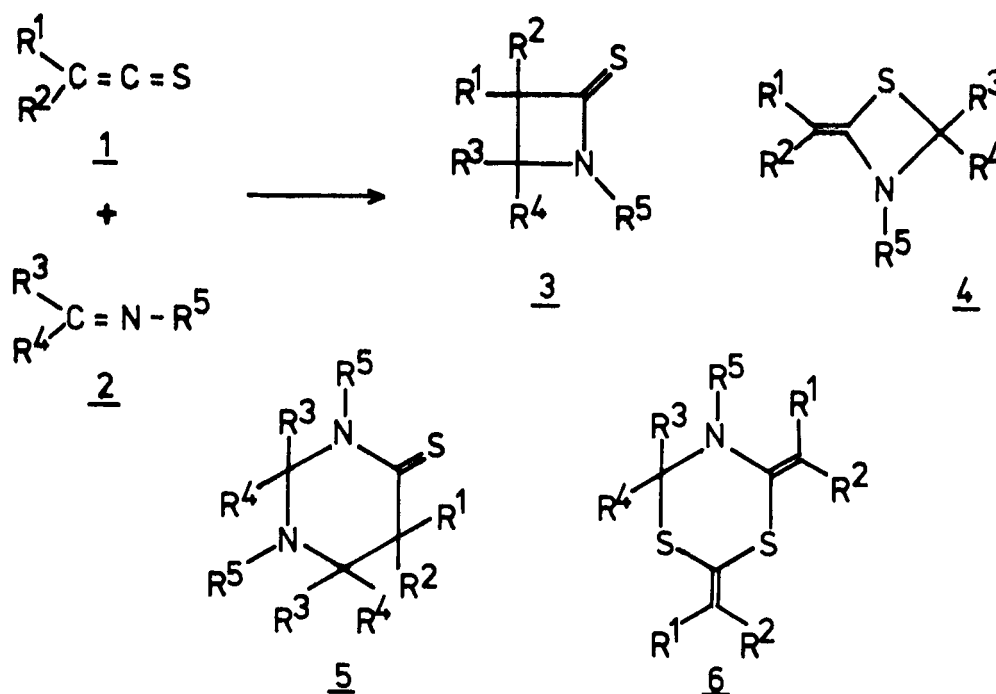
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# CYCLOADDITIONS OF THIOKETENES WITH CN DOUBLE BOND SYSTEMS

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After working out procedures for the synthesis of various thioketenes 1 a comprehensive study of the behaviour of 1 in cycloaddition reactions with CN double bond systems 2 such as azomethines and amidines was carried out. Possible 1:1 cycloadducts are  $\beta$ -thiolactams 3 and alkylidene thiazetidines 4, while 5 and 6 are examples of 2:1 cycloadducts. Compounds



3, 5, 6, and secondary products of 4 are actually isolated with yields depending upon the reaction conditions as well as the thioketene or C=N system used.

Additional variety is introduced by the use of thioketene-S-oxides in the cycloaddition.