

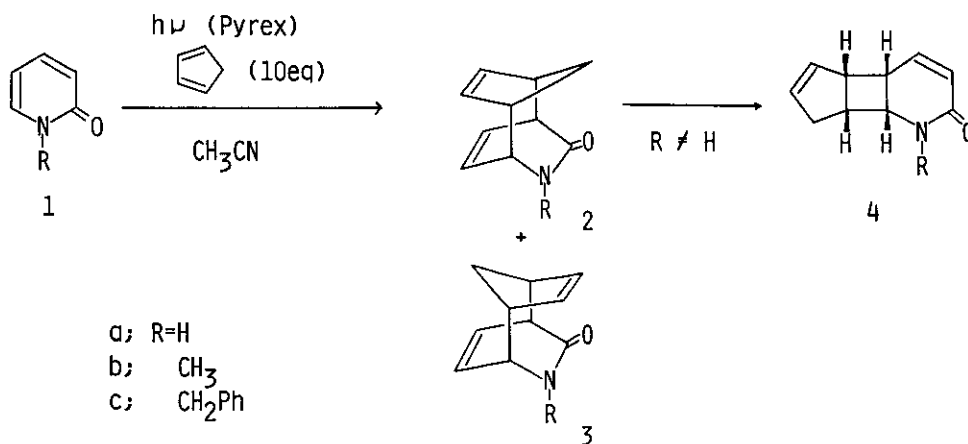
PHOTOCHEMISTRY OF 2-PYRIDONES.
PHOTOADDITION WITH CONJUGATED DIENES

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As part of systematic photochemical research on conjugated nitrogen-carbonyl systems, which stemmed from our studies on photochemistry of amides and imides*, we explored photoaddition reactions of 2-pyridones with conjugated dienes.

Irradiation of 2-pyridones in the presence of excess conjugated dienes gave several types of cycloaddition products. In the case of conjugated cyclo-dienes (cyclopentadiene and 1,3-cyclohexadiene), reaction products were [4 + 4]-adducts such as 2 and 3. Compounds 2b and 2c were not stable and underwent rearrangement at room temperature to give [2 + 2]-adducts 4b,c.



Reference

* Y. Kanaoka, Accounts Chem. Res., 1978, 11, 407.