〔Chem. Pharm. Bull., **33**, 2313 (1985)〕

**Reactions of 1-Unsubstituted Tautomeric 2-Pyridones with Benzyne.**

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Reactions of 2-pyridones with highly reactive dienophiles such as benzyne are of interest in connection with the structure-reactivity-chemoselectivity relationship of the tautomeric epuilibria, and the resulting Diels-Alder adducts could be converted not only to anologs which are of potential use as central nervous system active agents, but also to hitherto unknown 5, 6-benzo-2-azabarrelenes which contain many interesting physical and chemical features for study.

The present paper described the scope and limitations of the formation of the Diels-Alder adducts in such reactions.

〔J. Chem. Soc. Perkin Trans. II, **1985**, 1423〕

**Fluorescence Spectroscopic Study on Tautomeric Equilibria of 2(1*H*)-Pyridones.**

MASAYUKI KUZUYA*, AKIHIRO NOGUCHI, TAKACHIYO OKUDA

The minor tautomers of 2(1*H*)-pyridones, the pyridinol forms, have been directly observed in fluorescence spectra. The ratios of the pyridinol form obtained from the measurements correspond to the tautomeric equilibria and the substituent effects of methyl groups. Thus, the usefulness of fluorescence measurements for the study of the tautomeric properties of 2(1*H*)-pyridones in solution has been substantiated.

〔Chem. Lett., **1985**, 1467〕

**Excited State Multiplicity Involved in Photocycloaddition of Polymethylene Dicinnamates as Studied by Quenching Experiments.**

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The excited state multiplicity involved in photocycloaddition of polymethylene dicinnamates was studied by quenching experiments using ferrocene, and the ratio of such multiplicities from the Stern-Volmer plots based on a generalized Stern-Volmer expression was shown to vary depending upon the substituent and the methylene chain.