PO 1

MICHAEL ADDITION OF 2-BENZYLBENZAZOLES IN THE PRESENCE OF AQUEOUS SODIUM HYDROXIDE

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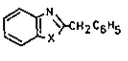
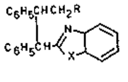
The reaction of 2-benzylbenzazoles (**1**, X = O or S) and α,β-unsaturated compounds, carried out in DMSO in the presence of aqueous sodium hydroxide, resulted in the formation of the corresponding Michael adducts of the type **2** in good to high yields.



1



2

X = O or S; R = COC_6H_5, $COOH_3$, $COOC_2H_5$, CN, $(COOC_2H_5)_2$

The reaction is highly stereoselective when benzylideneacetophenone or cinnamonitrile are used as acceptors. With methyl or ethyl cinnamate, ethyl benzylidenemalonate, benzylidenefluorene, cyclohexene-2-one and 2-benzylidenecyclohexanone the corresponding mixtures of diastereoisomers are obtained. Configurational and conformational assignements are disscussed on the bassis of ^{1}H—NMR spectral data.

PO 2

SYNTHESIS OF 3-PHENYLBUTYL SULFONAMIDO-, NITRO-, AND 9-AMINO- DERIVATIVES OF TRYPTAMINE

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PO 3

THE SYNTHESIS AND PHOTOCHEMISTRY OF ETHYL N-(2-METHYL-4-METHYLENE-6,7-METHYLENEDIOXY-3,4-DIHYDRO-3-QUINAZOLINYL)-N-PHENYLCARBAMATE

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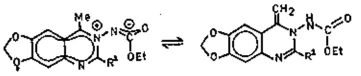
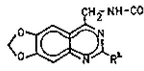
Irradiation of the potentially tautomeric N-(4-methyl-6,7-methylenedioxy-3-quinazolinio)ethoxyformamidates **1a** and **1b** has been shown to yield, among other products, the novel photoisomers **2a** and **2b**, respectively.[1] In order to ascertain whether the possibility of tautomerization of the starting quinazolinioamidates **1a**α and **1b**α into the isomeric methylene bases **1a**β and **1b**β, respectively, has any bearing on the photoisomerizations **1** → **2**, the non-tautomeric N-phenyl derivative **3** of **1b**β was synthesised and subjected to irradiation.





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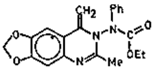

3

1, 2: a: R^2= H; b: R^2= Me

The synthesis of **3** and the structures of the photoproducts obtained from **3** will be described, and the mechanism of the photoisomerizations of **3** and of compounds **1a** and **1b** will be discussed.

REFERENCES

1) J. Fetter, K. Lempert, G. Barta-Szalai and J. MØller: Acta Chim. Budapest *94*, 233 (1977).

PO 4

RING-CHAIN TAUTOMERISM OF IMIDAZOLIDINE SYSTEMS

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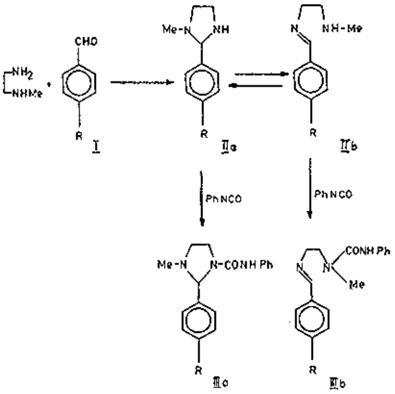
The reaction of aldehydes (I) with N-methylethylenediamine has been studied. The products are shown by H NMR to be the cyclic imidazolidine (II a) and the corresponding Schiff base (II b). The composition of the products depends largely on the substituent R (—NO_2 = 100 % II a, —NMe_2 = 50 % II a). Mobil tautomeric equilibrium at a constant temperature has not been observed in solvents with different polarity.



The reaction of the mixture II a II b with aromatic isocyanates (particularly with PhNCO) in different solvents and at different temperature has been investigated.

Examination of the PMR spectras demonstates the products to be the urea derivatives III a and III b. The percent composition depends on substituent R, with open — chain compound predominating and was completely different then in the starting material. The ratio of the ingredients III a/III b depends on the temperature and the solvent in which the reaction was carried out. Interconsersion of III a and III b has not been observed. All these facts can be explained by the greater reactivity toward an isocyanate of the open isomer II b, and indicate that compounds II a and II b are in tautomeric equilibrium.