SLOVAK TECHNICAL UNIVERSITY BRATISLAVA

COMENIUS UNIVERSITY BRATISLAVA

THE SLOVAK AND CZECHOSLOVAK CHEMICAL SOCIETY

THE VII th SYMPOSIUM ON CHEMISTRY OF HETEROCYCLIC COMPOUNDS

BRATISLAVA

CZECHOSLOVAKIA

AUGUST 31 - September 3, 1981

Abstracts of Papers

THE VII th SYMPOSIUM ON CHEMISTRY OF
HETEROCYCLIC COMPOUNDS

is held under the auapicies of Rectors

The Slovak Technical University
Bratislava
Academician Professor
Anton Blažej, DrSc.

The Commenius University
Bratislava
Professor
PhDr. Ján Kvasnička, DrSc.

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LE III 1: M. AUGUSTIN, M. RICHTER - Synthesis and Reactions of Imido-dithiocarboxylate

LE III 2: Ľ. FIŠERA, J. KOVÁČ - 1,3-Dipolar Cycloadditions of C-Benzoyl-N-Phenylnitrone to Heterocycles

LE III 3: P. KUTSCHY, P. KRISTIAN, J. KOVÁČ, M. DANDÁROVÁ - Synthesis and Reactions of cis- and trans-3-/2-Furyl/-acryloyl Isothiocyanates with Amines and Diazomethane

LE III 4: J. KURUC, L. L. RODINA, I. K. KOROBITSYNA - 1,5-Sigmatropic Shift of Proton by 1,3-Dipolar Cycloadition Five Membered Rings of α-Ketonitrones

2:00 p.m. PL 3: N. K. ROZHKOVA - The Dual Reactivity of the Benzazoline-2-tiones

Chairman: Prof. V. Sutoris

3:00 p.m. PL 4: G. R. REVANKAR, P. C. SRIVASTAVA, R. K. ROBINS - Synthesis Chemistry and

LE III 4

1,5-SIGMATROPIC SHIFT OF PROTON BY 1,3-DIPOLAR CYCLOADDITION FIVE MBERED RINGS OF α-KETONITRONES

J. Kuruc [a], L. L. Rodina [b], I. K. Korobitsyna [b]
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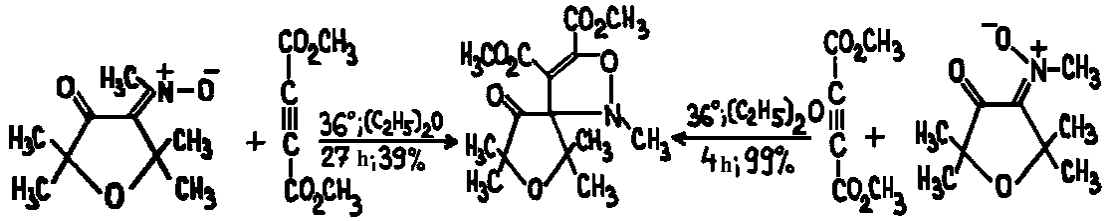
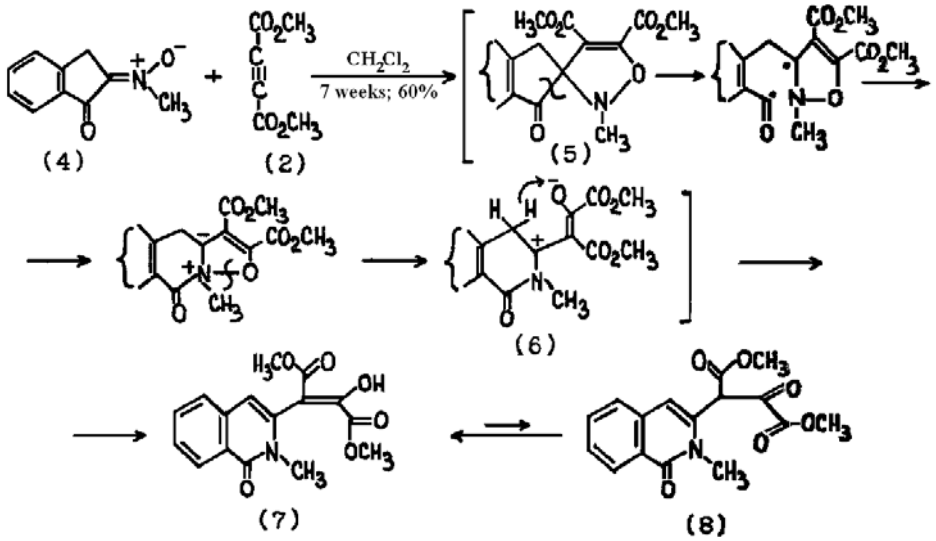
By interaction of E- and Z-isomers of 4-N-methylnitrono-2,2,5,5-tetramethyltetrahydrofuran-3-on (I-E,Z) with DMEADA (2) formation of adduct (3) – 2-methyl-4,5-dicarbomethoxy-Δ^4-spiro-4(2,2,5,5-tetramethyltetrahydrofuran-3--on occurs. The Z-isomer exhibits much more reactivity in this reaction.



(1-E) (2) (3) (2) (1-Z)

Lower reactivity of the E-isomer was explained by steric hindrances for 1,3-cycloaddition process due to methyl groups in α-position toward nitrono group.

The E-2-N-methylnitronoindan-l-on (4-E) reacted with DMEADA (2), however. according to the spectral characteristic the reaction product (7) and not awaited adduct (5) was iso1ated:



(4) (2) (5) (6) (7) (8)

1,3-cycloaddition must be accompanied with 1,5-sigmatropic shift of proton in thise case to explain the formation of dimethyl ester 2-[3-(1-N-methylisoquinolonil)]-oxobutandionic acid (8).