

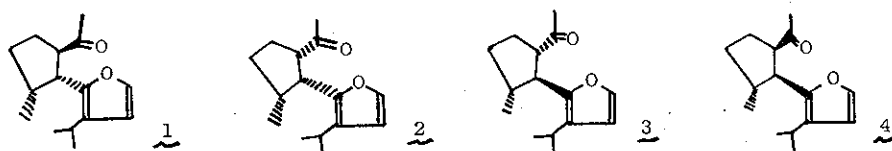
SYNTHESIS OF α,β -UNSATURATED CYCLOPENTENE-
CARBOXYLATES. V. ATTEMPTED SYNTHESIS OF
FUROPELARGONES

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The reaction of 3-isopropyl-2-furylmagnesium bromide with 3-methyl-1-cyclopentenyl methyl ketone in the presence of cuprous chloride gave a mixture of two previously unreported diastereomers (3 and 4) of furopelargone A (1).¹



Structures of these diastereomers were elucidated by making a comparison of spectral data (IR, NMR) with those of furopelargones A and B^{2,3}, which were synthesized by the procedure reported by Büchi and Wüest. Upfield shift of the acetyl methyl protons of the epimer 4 strongly suggests its cis orientation as regards 3-isopropyl-2-furyl group. The trans orientation of the epimer 3 also can be deduced in like manner.

NMR Spectra of Furopelargones

Furopelargone A	0.70 (d, J=8Hz)	1.14 (d, J=11Hz)	1.98 (s)	6.17 (d, J=2Hz)	7.17 (d, J=2Hz)
Furopelargone B	0.73 (d, J=7 Hz)	1.16 (d, J=7Hz)	1.77 (s)	6.20 (d, J=2Hz)	7.23 (d, J=2Hz)
Epimer <u>3</u>	0.92 (d, J=6Hz)	1.11 (d, J=7Hz)	1.89 (s)	6.10 (d, J=2Hz)	7.11 (d, J=2Hz)
Epimer <u>4</u>	0.91 (d, J=6Hz)	1.17 (d, J=7Hz)	1.54 (s)	6.14 (d, J=2Hz)	7.12 (d, J=2Hz)

Literatures

- (1) R. E. Wolff, J. C.-N. Ma, and G. Lukas, *Compt. rend.*, **257**, 1784 (1963).
- (2) G. Lukas, J. C.-N. Ma, J. A. McCloskey, and R. E. Wolff, *Tetrahedron*, **20**, 1789 (1964).
- (3) G. Büchi and H. Wüest, *J. Am. Chem. Soc.*, **87**, 1589 (1965).