

REACTION OF  $\alpha$ -DIAZOKETONES WITH THIOKETONES

Masashi Tashiro, Shuntaro Mataka and Seimi Ishii

Research Institute of Industrial Science, Kyushu University, 86

Hakozaki, Higashi-ku, Fukuoka, Japan

The reaction of  $\alpha$ -diazoketones, azibenzil (1a), 4,4-methoxy- (1b), 4,4-dimethyl- (1c) and 4,4-dichlorazibenzil (1d) and diazophenanthrone (2), and thioketones, thiobenzophenone (3a), 4,4-dimethoxythiobenzophenone (3b) and thiofluorenone (4), was investigated.

The reaction of 1a with 3a gave 2,2,4,5-tetraphenyl-1,3-oxathiole and the cyclic 1:1-adduct of diphenylketene with 3a in 31 and 8 % yield, respectively, while the reaction of 1b with 3a or 3b afforded only the 1:1-adducts of diarylketenes with 3a or 3b in 49 and 45 % yields, respectively.

The reaction of 1a-d with 4 gave 1-aryl-1-aryl-2,2-fluorenylidene episulfides (5a-d) in 35, 82, 20 and 86 % yields, respectively. The compound 5d was converted into not 1,3-oxathiole but  $\alpha,\beta$ -unsaturated ketone in refluxing xylene.

The reaction of 2 with 3a or 4 gave the corresponding 1,3-oxathioles in 73 and 78 % yields, respectively, accompanied by a small amount of bisphenanthronylidene.