

AN ABNORMAL FORMATION OF OXAZOLO[5,4-d]PYRIMIDINES FROM  
6-(BENZYLIDENE-1'-METHYLHYDRAZINO)-1,3-DIMETHYLURACILS

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Treatment of 6-(benzylidene-1'-methylhydrazino)-1,3-dimethyluracils with sodium nitrite in acetic acid gave the corresponding 2-aryl-5,7-dimethyloxazolo[5,4-d]-pyrimidine-4,6(5H,7H)-diones.

Recent papers<sup>1,2</sup> from our laboratory described a new, facile syntheses of oxazolo[5,4-d]pyrimidine derivatives by the reaction of 5-benzylideneamino-1,3-dimethylbarbituric acids with thionyl chloride or N-bromosuccinimide. This paper is concerned with an abnormal formation of these derivatives consisting of the treatment of 6-(benzylidene-1'-methylhydrazino)-1,3-dimethyluracils (Ia-g)<sup>3</sup> with sodium nitrite in acetic acid.

Refluxing the uracils (Ia-g) (0.0005 mol) with sodium nitrite (0.001 mol) in acetic acid (3 ml) for 1 hr afforded the corresponding 2-aryl-5,7-dimethyloxazolo[5,4-d]pyrimidine-4,6(5H,7H)-diones (IIa-g),<sup>1</sup> which were isolated by concentration of the reaction mixture and addition of aqueous ethanol (Table).<sup>4</sup>

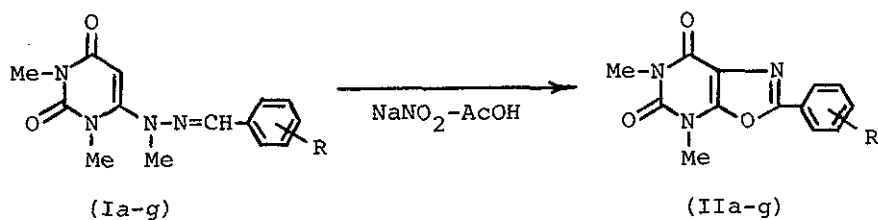


Table Oxazolo[5,4-d]pyrimidine Derivatives

Compd. <sup>a</sup>	R	Mp(°C)	Yield(%)
IIa	H	240-242	19
IIb	4-Br	259	20
IIc	4-Cl	259	34
IId	3,4-Cl <sub>2</sub>	255-257	16
IIe	4-NO <sub>2</sub>	275	10
IIf	4-Me	233-235	10
IIg	4-MeO	255	23

a) All compounds were recrystallized from ethanol.

This novel reaction involves without doubt the initial nitro-sation at the position 5 of (I), however, the definite mechanism for the formation of (II) is currently under investigation.

#### REFERENCES AND NOTE

- 1 K. Senga, J. Sato, and S. Nishigaki, *Heterocycles*, 1977, 6, 689.
- 2 K. Senga, J. Sato, K. Shimizu, and S. Nishigaki, *Heterocycles*, "accepted" (COM-77-117).
- 3 F. Yoneda and T. Nagamatsu, *Bull. Chem. Soc. Japan*, 1975, 48, 1484.
- 4 The compounds (IIa-g) were identical in all respects with the authentic samples.<sup>1</sup>

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